

Automation and Control Essentials Catalog 2026

Everything you need for your control panels

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Schneider Electric



The Essentials for your control panels

You will find all the essentials you need for high-quality control panels in this catalog. Choose the right products to set up your equipment with ease, complete your work faster, and give your business a boost.

2026 product highlights





Get all the products you need from a distributor close to you

General contents

01 Harmony control..... 4

02 Harmony Human Machine Interfaces (HMI) - Basic panels..... 24

03 Harmony Signaling devices..... 30

04 Altivar soft starters..... 36

05 Altivar variable speed drives..... 40

06 Harmony Relays, measurement and control relays..... 78

07 Modicon PLC..... 88

08 Motion Control..... 92

09 Power supply and transformer, Uninterruptible Power Supply 100

10 Harmony safety modules..... 104

11 Universal enclosures..... 110



01. Harmony control

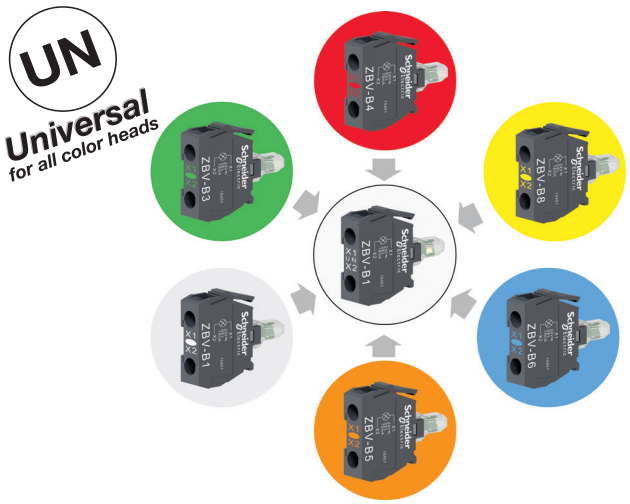
Universal LED block for all illuminated version

Harmony streamline the structure of pilot lights and actuators using LED by moving from 6 colored LEDs to a universal source of luminosity.

A unique technology that leads to the best lighting solution.

- Divide by 6 the stocked part numbers (for a given wiring and voltage solution)
- Astonishing intensity and contrast with enhanced color purity
- Reduce conception and installation time
- Simplified maintenance
- Avoid errors on pairing between heads and light blocks. Nomenclatures are simplified

The universal light blocks are now identifiable in the catalog with the below logo as well as physically on the product with the two letters "UN".



Features

Harmony XB4/XB5 Illuminated functions

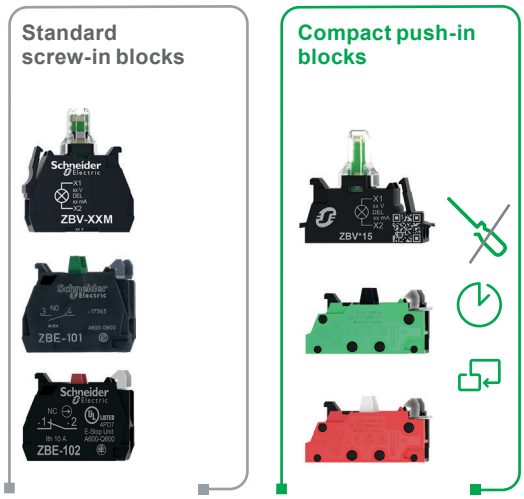


Compact Push In contact and LED blocks

Harmony is the first one on the market proposing compacity and stackable features together with Push-in technology which is fully compatible with our Harmony XB4/XB5 units.

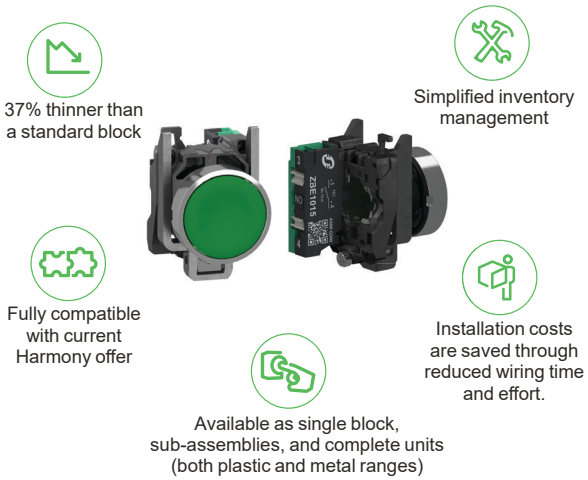
Innovative products for benefits never seen before

- Save installation cost by saving wiring time
- No more tools required when inserting cables
- Save maintenance cost avoiding periodic re- tightening campaign
- Improve aesthetic with slim panels thanks to compacity.
- Extend application scope with more possible configurations.
- No compromise on the level of performance and robustness



Features

Harmony XB4/XB5 Compact Push-in blocks



Harmony XB4 metal pushbuttons



1 Pushbuttons with flush push, unmarked

Color	White	Black	Green	Red	Yellow	Blue
Contact		NO		NC	NO	
Connection	Screw clamp terminals					
Complete product	XB4BA11*	XB4BA21*	XB4BA31*	XB4BA42*	XB4BA51*	XB4BA61*
Head	ZB4BA1	ZB4BA2	ZB4BA3	ZB4BA4	ZB4BA5	ZB4BA6
Complete flush mounting head in 30.5 mm diameter hole	XB4FA11	XB4FA21	XB4FA31	XB4FA42	–	XB4FA61
Flush mounting head in 30.5 mm diameter hole	ZB4FA1	ZB4FA2	ZB4FA3	ZB4FA4	ZB4FA5	ZB4FA6
Body		ZB4BZ101*		ZB4BZ102*	ZB4BZ101*	

2 Booted pushbuttons with flush push, unmarked

Complete product	–	XB4BP21	XB4BP31	XB4BP42	XB4BP51	XB4BP61
Head	ZB4BP1	ZB4BP2	ZB4BP3	ZB4BP4	ZB4BP5	ZB4BP6
Body		ZB4BZ101*		ZB4BZ102*	ZB4BZ101*	

3 Pushbuttons with flush push, marked

Color	White	Black	Green	Red	Green	Red
Marking	⬆	⇩	"I" (white)	"O" (white)	"START" (white)	"STOP" (white)
Contact		NO		NO + NC	NO	NO + NC
Connection	Screw clamp terminals					
Complete product	XB4BA3341	XB4BA3351	XB4BA3311*	–	–	–
Head	ZB4BA334	ZB4BA335	ZB4BA331	ZB4BL432 *(1)*	ZB4BA333	ZB4BL434
Complete flush mounting head in 30.5 mm diameter hole	XB4FA3341	XB4FA3351	XB4FA3311	XB4FL4325 *(1)*	–	–
Flush mounting head in 30.5 mm diameter hole	ZB4FA334	ZB4FA335	ZB4FA331	ZB4FL432 *(1)*	ZB4FA333	ZB4FL434
Body		ZB4BZ101*		ZB4BZ105*	ZB4BZ101*	ZB4BZ105*



4 Ø 40 trigger action Emergency stop mushroom head pushbuttons

Color	Red				
Contact	NO + NC Push-pull	1 NC monitoring Turn to release	2 NC Turn to release	NO + NC Turn to release	NO + NC Key release
Connection	Screw clamp terminals				
Complete product	XB4BT845	XB4BS8446	XB4BS8444*	XB4BS8445*	XB4BS9445
Head	ZB4BT84		ZB4BS844		ZB4BS944
Body	ZB4BZ105*	ZBE302 + ZB4BZ009	ZB4BZ104*	ZB4BZ105*	

5 Ø 40 mushroom head pushbutton, spring return

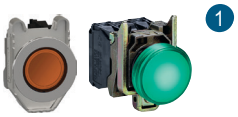
Color	Black	Green	Blue	Yellow
Contact	NO Push-pull			
Connection	Screw clamp terminals			
Complete product	XB4BC21	–	–	–
Head	ZB4BC2	ZB4BC3	ZB4BC6	ZB4BC5
Body	ZB4BZ101*			

6 Illuminated ring for Emergency stop *(2)*

Color of the illuminated ring		White / Red	Red		
Power supply		24 VAC/VDC		110… 120 VAC	230… 240 VAC
Complete product for standard mounting	Unmarked	ZBY9W3B140	ZBY9W2B140	ZBY9W2G140	ZBY9W2M140
	EMERGENCY STOP	ZBY9W3B330	ZBY9W2B330	ZBY9W2G330	ZBY9W2M330
	ARRET D'URGENGE	ZBY9W3B130	ZBY9W2B130		ZBY9W2M130
	PARADA DE EMERGENCIA	ZBY9W3B430	ZBY9W2B430		ZBY9W2M230
	NOT-HALT	ZBY9W3B230	ZBY9W2B230		

(1) With projecting push.
(2) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo ⓥ has been added.
(*) To order the product with a compact push-in contact block, add '5' at the end of the reference

Harmony XB4 metal pushbuttons





1 Pilot lights with universal LED

Color		○ White	● Green	● Red	● Orange	● Blue	● Yellow
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	**XB4BVB1***	**XB4BVB3***	**XB4BVB4***	**XB4BVB5***	**XB4BVB6***	**ZBVB1** *(1)*
	110...120 VAC	**XB4BVG1**	**XB4BVG3***	**XB4BVG4**	**XB4BVG5**	**XB4BVG6**	**ZBVG1** *(1)*
	230...240 VAC	**XB4BVM1**	**XB4BVM3**	**XB4BVM4**	**XB4BVM5**	**XB4BVM6**	**ZBVM1** *(1)*
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	**XB4FVB1**	**XB4FVB3**	**XB4FVB4**	–	**XB4FVB6**	**ZBVB1** *(2)*
	110…120 VAC	**XB4FVG1**	**XB4FVG3**	**XB4FVG4**	**XB4FVG5**	**XB4FVG6**	**ZBVG1** *(2)*
	230…240 VAC	**XB4FVM1**	**XB4FVM3**	**XB4FVM4**	**XB4FVM5**	**XB4FVM6**	**ZBVM1** *(2)*

2 Illuminated pushbuttons with flush push and universal LED

Color		○ White	● Green	● Red	● Orange	● Blue	● Yellow
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	**XB4BW31B5***	**XB4BW33B5***	**XB4BW34B5***	**XB4BW35B5***	**XB4BW36B5***	**ZBVB1** *(3)*
	110...120 VAC	**XB4BW31G5**	**XB4BW33G5**	**XB4BW34G5**	**XB4BW35G5**	**XB4BW36G5**	**ZBVG1** *(3)*
	230...240 VAC	**XB4BW31M5**	**XB4BW33M5**	**XB4BW34M5**	**XB4BW35M5**	**XB4BW36M5**	**ZBVM1** *(3)*
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	**XB4FW31B5**	**XB4FW33B5**	**XB4FW34B5**	–	**XB4FW36B5**	**ZBVB1** *(4)*
	110…120 VAC	**XB4FW31G5**	**XB4FW33G5**	**XB4FW34G5**	**XB4FW35G5**	**XB4FW36G5**	**ZBVG1** *(4)*
	230…240 VAC	**XB4FW31M5**	**XB4FW33M5**	**XB4FW34M5**	**XB4FW35M5**	**XB4FW36M5**	**ZBVM1** *(4)*







3 Selector switches and key switches

Positions (number and type)		2 ⟋ Stay put	2 ⟋ Spring return	2 ⟋ Stay put	3 ⟋ Stay put	3 ⟋ Spring return
Contact		NO		NO + NC	2 NO	
Connection		Screw clamp terminals				
Complete product	Black handle	**XB4BD21***	**XB4BD41***	**XB4BD25***	**XB4BD33***	**XB4BD53***
	Long black handle	**XB4BJ21**	–	–	**XB4BJ33**	**XB4BJ53**
	Key switch (No. 455)	**XB4BG21***	**XB4BG61***	–	**XB4BG33***	–
Complete flush mounting head in 30.5 mm diameter hole	Black	**XB4FD21**	**XB4FD41**	**XB4FD25**	**XB4FD33**	**XB4FD53**
	Long black handle	**XB4FJ21**	–	–	**XB4FJ33**	**XB4FJ53**
	Key switch (No. 455)	**XB4FG21**	**XB4FG61**	–	**XB4FG33**	–

4 Illuminated selector switches with universal LED and colored handle

Stay put positions		2 ⟋			3 ⟋		
Color		● Green	● Red	● Orange	● Green	● Red	● Orange
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	**XB4BK123B5**	**XB4BK124B5**	**XB4BK125B5**	**XB4BK133B5**	**XB4BK134B5**	**XB4BK135B5**
	110...120 VAC	**XB4BK123G5**	**XB4BK124G5**	**XB4BK125G5**	**XB4BK133G5**	–	–
	230...240 VAC	**XB4BK123M5**	**XB4BK124M5**	**XB4BK125M5**	**XB4BK133M5**	**XB4BK134M5**	**XB4BK135M5**
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	**XB4FK123B5**	**XB4FK124B5**	**XB4FK125B5**	**XB4FK133B5**	**XB4FK134B5**	–
	110…120 VAC	**XB4FK123G5**	–	**XB4FK125G5**	–	**XB4FK134G5**	**XB4FK135G5**
	230…240 VAC	**XB4FK123M5**	**XB4FK124M5**	**XB4FK125M5**	**XB4FK133M5**	**XB4FK134M5**	**XB4FK135M5**

5 Double- and triple-headed pushbuttons

Type	1 flush and 1 projecting	2 flush	1 flush and 1 projecting	2 flush	2 flush + 1 red central projecting
Contact	NO + NC		NO + NC with 24 V pilot light		2 NO + NC
Connection	Screw clamp terminals				
Complete product	**XB4BL73415***	–	**XB4BW73731B5**	–	**XB4BA731327** –
Head	**ZB4BL7341**	**ZB4BA7121**	**ZB4BW7L3741**	**ZB4BW7A1721**	– **ZB4BA71124**
Body	**ZB4BZ105***		**ZB4BZ105* + ZBVB1**		**ZB4BZ103* + ZBE102**

(1) To get a complete pilot light, this body must be combined with a ZB4BZ009 socket and a ZB4BV083 head (to be ordered separately).
(2) To get a complete pilot light, this body must be combined with ZB4BZ009 socket and ZB4FV083 head (to be ordered separately).
(3) To get a complete illuminated pushbutton, this body must be combined with a ZB4BZ009 socket and a ZB4BW383 head (to be ordered separately).
(4) To get a complete pilot light, this body must be combined with ZB4BZ009 socket and ZB4FW383 head (to be ordered separately).

Harmony XB5 plastic pushbuttons







1 Pushbuttons with flush push, unmarked

Color	○ White	● Black	● Green	● Red	● Yellow	● Blue
Contact	NO			NC	NO	
Connection	Screw clamp terminals					
Complete product for standard mounting	**XB5AA11***	**XB5AA21***	**XB5AA31***	**XB5AA42***	**XB5AA51***	**XB5AA61***
Standard mounting head	**ZB5AA1**	**ZB5AA2**	**ZB5AA3**	**ZB5AA4**	**ZB5AA5**	**ZB5AA6**
Complete flush mounting head in 30.5 mm diameter hole	**XB5FA11**	**XB5FA21**	**XB5FA31**	**XB5FA42**	**XB5FA51**	**XB5FA61**
Flush mounting head in 30.5 mm diameter hole	**ZB5FA1**	**ZB5FA2**	**ZB5FA3**	**ZB5FA4**	**ZB5FA5**	**ZB5FA6**
Body	**ZB5AZ101***			**ZB5AZ102***	**ZB5AZ101***	

2 Booted pushbuttons with flush push, unmarked

Complete product for standard mounting	–	**XB5AP21**	**XB5AP31**	**XB5AP42**	**XB5AP51**	**XB5AP61**
Standard mounting head	–	**ZB5AP2**	**ZB5AP3**	**ZB5AP4**	**ZB5AP5**	**ZB5AP6**
Body	–	**ZB5AZ101***		**ZB5AZ102***	**ZB5AZ101***	

3 Pushbuttons with flush push, marked

Color	○ White	● Black	● Green	● Red	● Green	● Red
Marking	⬆	⇩	"I" (white)	"O" (white)	"START" (white)	"STOP" (white)
Contact	NO			NC	NO	NC
Connection	Screw clamp terminals					
Complete product for standard mounting	**XB5AA3341**	**XB5AA3351**	**XB5AA3311**	–	–	–
Standard mounting head	**ZB5AA334**	**ZB5AA335**	**ZB5AA331**	**ZB5AL432** *(1)*	**ZB5AA333**	**ZB5AL434**
Complete flush mounting head in 30.5 mm diameter hole	**XB5FA3341**	**XB5FA3351**	**XB5FA3311**	**XB5FL4322** *(1)*	–	–
Flush mounting head in 30.5 mm diameter hole	**ZB5FA334**	**ZB5FA335**	**ZB5FA331**	**ZB5FL432** *(1)*	**ZB5FA333**	**ZB5FL434** *(1)*
Body	**ZB5AZ101***			**ZB5AZ102***	**ZB5AZ101***	**ZB5AZ102***










4 Ø 40 trigger action Emergency stop mushroom head pushbuttons

Color	● Red				
Contact	NO + NC Push-pull	1 NC monitoring Turn to release	2 NC Turn to release	NO + NC Turn to release	NO + NC Key release
Connection	Screw clamp terminals				
Complete product for standard mounting	**XB5AT845**	**XB5AS8446**	**XB5AS8444***	**XB5AS8445***	**XB5AS9445**
Standard mounting head	**ZB5AT84**		**ZB5AS844**		**ZB5AS944**
Body	**ZB5AZ105**	**ZBE302 + ZB5AZ009**	**ZB5AZ104**	**ZB5AZ105**	

5 Ø 40 mushroom head pushbuttons, spring return

Color	● Black	● Green	● Blue	● Yellow		
Contact	NO Push-pull					
Connection	Screw clamp terminals					
Complete product for standard mounting	**XB5AC21**	–	–	–		
Standard mounting head	**ZB5AC2**	**ZB5AC3**	**ZB5AC6**	**ZB5AC5**		
Body	**ZB5AZ101***					

6 Illuminated Emergency stop head

Color of the illuminated ring	○ White / ● Red		● Red			
Power supply	24 VAC/VDC				110-120 VAC	230-240 VAC
Contact	NO + 2NC Turn to release	NO + NC Turn to release	NO + 2NC Turn to release	NO + NC Turn to release	NO + 2NC Turn to release	
Connection	Screw clamp terminals					
Complete product for standard mounting	**XB5AS84W3B41**	**XB5AS84W3B5**	–	–	–	–
Standard mounting head	**ZB5AS84W3B**		**ZB5AS84W2B**		**ZB5AS84W2G**	**ZB5AS84W2M**
Body	**ZB5AZ141**	**ZB5AZ105**	**ZB5AZ141**	**ZB5AZ105**	**ZB5AZ141**	

7 Illuminated ring for Emergency stop *(2)*

Color of the illuminated ring		○ White / ● Red	● Red		
Power supply		24 VAC/VDC		110-120 VAC	230-240 VAC
Complete product for standard mounting	Unmarked	**ZBY9W3B140**	**ZBY9W2B140**	**ZBY9W2G140**	**ZBY9W2M140**
	EMERGENCY STOP	**ZBY9W3B330**	**ZBY9W2B330**	–	**ZBY9W2M330**
	ARRET D'URGENCE	**ZBY9W3B130**	**ZBY9W2B130**	–	–
	PARADA DE EMERGENCIA	**ZBY9W3B430**	**ZBY9W2B430**	–	**ZBY9W2M430**
	NOT-HALT	**ZBY9W3B230**	**ZBY9W2B230**	**ZBY9W2G230**	**ZBY9W2M230**

(1) With projecting push.
(2) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo ⓥ has been added.
(*) To order the product with a compact push-in contact block, add '5' at the end of the reference

Harmony XB5 plastic pushbuttons





1 Pilot lights with universal LED

Color		White	Green	Red	Orange	Blue	Yellow
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AVB1*	XB5AVB3*	XB5AVB4*	XB5AVB5*	XB5AVB6*	ZBVB1 *(1)*
	110...120 VAC	XB5AVG1	XB5AVG3	XB5AVG4	XB5AVG5	XB5AVG6	ZBVG1 *(1)*
	230...240 VAC	XB5AVM1	XB5AVM3	XB5AVM4	XB5AVM5	XB5AVM6	ZBVM1 *(1)*
Monolithic product for standard mounting	24 VAC/VDC	XB5EVB1	XB5EVB3	XB5EVB4	XB5EVB5	XB5EVB6	XB5EVB8
	110...120 VAC	XB5EVG1	XB5EVG3	XB5EVG4	XB5EVG5	–	XB5EVG8
	230...240 VAC	XB5EVM1	XB5EVM3	XB5EVM4	XB5EVM5	XB5EVM6	XB5EVM8
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	XB5FVB1	XB5FVB3	XB5FVB4	XB5FVB5	XB5FVB6	ZBVB1 *(2)*
	110...120 VAC	XB5FVG1	XB5FVG3	XB5FVG4	XB5FVG5	XB5FVG6	ZBVG1 *(2)*
	230...240 VAC	XB5FVM1	XB5FVM3	XB5FVM4	XB5FVM5	XB5FVM6	ZBVM1 *(2)*

2 Illuminated pushbuttons with flush push with universal LED

Color		White	Green	Red	Orange	Blue	Yellow
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AW31B5*	XB5AW33B5*	XB5AW34B5*	XB5AW35B5*	XB5AW36B5*	ZBVB1 *(3)*
	110...120 VAC	XB5AW31G5	XB5AW33G5	XB5AW34G5	XB5AW35G5	XB5AW36G5	ZBVG1 *(3)*
	230...240 VAC	XB5AW31M5	XB5AW33M5	XB5AW34M5	XB5AW35M5	XB5AW36M5	ZBVM1 *(3)*
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	XB5FW31B5	XB5FW33B5	XB5FW34B5	XB5FW35B5	XB5FW36B5	ZBVB1 *(4)*
	110...120 VAC	XB5FW31G5	XB5FW33G5	XB5FW34G5	XB5FW35G5	XB5FW36G5	ZBVG1 *(4)*
	230...240 VAC	XB5FW31M5	XB5FW33M5	XB5FW34M5	XB5FW35M5	XB5FW36M5	ZBVM1 *(4)*







3 Selector switches and key switches

Positions		2 Stay put	2 Spring return	2 Stay put	3 Stay put	3 Spring return
Contact		NO		NO + NC	2 NO	
Connection		Screw clamp terminals				
Complete product for standard mounting	Black handle	XB5AD21*	XB5AD41*	XB5AD25*	XB5AD33*	XB5AD53*
	Long black handle	XB5AJ21	–	–	XB5AJ33	XB5AJ53
	Key switch (No. 455)	XB5AG21*	XB5AG61*	–	XB5AG33*	–
Complete flush mounting head in 30.5 mm diameter hole	Black handle	XB5FD21	XB5FD41	XB5FD25	XB5FD33	XB5FD53
	Long black handle	XB5FJ21	–	–	XB5FJ33	XB5FJ53
	Key switch (No. 455)	XB5FG21	XB5FG61	–	XB5FG33	–

4 Illuminated selector switches with universal LED and colored handle

Stay put positions		2			3		
Color		Green	Red	Orange	Green	Red	Orange
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product for standard mounting	24 VAC/VDC	XB5AK123B5	XB5AK124B5	XB5AK125B5	XB5AK133B5	XB5AK134B5	XB5AK135B5
	110...120 VAC	XB5AK123G5	–	–	–	–	–
	230...240 VAC	XB5AK123M5	XB5AK124M5	XB5AK125M5	XB5AK133M5	XB5AK134M5	XB5AK135M5
Complete flush mounting head in 30.5 mm diameter hole	24 VAC/VDC	XB5FK123B5	XB5FK124B5	XB5FK125B5	XB5FK133B5	XB5FK134B5	XB5FK135B5
	110...120 VAC	XB5FK123G5	XB5FK124G5	XB5FK125G5	XB5FK133G5	XB5FK134G5	XB5FK135G5
	230...240 VAC	XB5FK123M5	XB5FK124M5	XB5FK125M5	XB5FK133M5	XB5FK134M5	XB5FK135M5

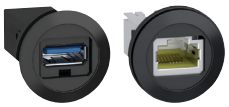
5 Double- and triple-headed pushbuttons

Type	1 flush 1 projecting	2 flush	1 flush 1 projecting		2 flush + 1 red central projecting	
Contact	NO + NC		NO + NC with 24V pilot light		2 NO + NC	
Connection	Screw clamp terminals					
Complete product	XB5AL73415*	–	XB5AW73731B5	–	XB5AA731327	–
Head	ZB5AL7341	ZB5AA7121	ZB5AW7L3741	–	–	ZB5AA71124
Body	ZB5AZ105		ZB5AZ105 + ZBVB1		ZB5AZ103 + ZBE102	

(1) To get a complete pilot light, this body must be combined with a ZB5AZ009 socket and a ZB5AV083 head (to be ordered separately - see previous page).
(2) To get a complete pilot light, this body must be combined with ZB5AZ009 socket and ZB5FV083 head (to be ordered separately).
(3) To get a complete illuminated pushbutton, this body must be combined with a ZB5AZ009 socket and a ZB5AW383 head (to be ordered separately - see previous page).
(4) To get a complete illuminated pushbutton, this body must be combined with ZB5AZ009 socket and ZB5FW383 head (to be ordered separately).
(*) To order the product with a compact push-in contact block, add '5' at the end of the reference

Harmony XB4 and XB5 pushbuttons: other functions







1 Buzzer

Color		Black	Red illumination	Yellow illumination
Wiring connector		Screw clamp terminals		
Monolithic product	24 VAC/VDC	**XB5KSB**	**XB5KS2B4**	**XB5KS2B8**
	110...120 VAC/VDC	**XB5KSG**	**XB5KS2G4**	**XB5KS2G8**
	230...240 VAC	**XB5KSM**	**XB5KS2M4**	**XB5KS2M8**

2 USB and RJ45 ports

Description	Panel-mounted USB and RJ45 ports in 22.5 mm hole with notch		Protection covers		
Characteristics	USB interface, type A jack	Ethernet interface, RJ45 jack	Black	Rigid, transparent	Metal
Connection type	USB port 3.0 A-A	RJ45 port Cat. 6	–	–	–
Degree of protection	**IP20**	**IP20**	**IP65/IP67**	**IP65/IP67**	**IP65/IP67/IP69K**
Reference	**XB5PUSB3**	**XB5PRJ45**	**ZBSP1**	**ZBSP2**	**ZBSP3**





3 Timers

Description	Panel-mounted timer function with LED status and 1 static output in 22.5 mm hole				
Output type	1 static output				
Time delay type	Type A (delay on energization)				
Time delay range	0.5...10 s	3...60 s	0.5...10 min	3...60 min	
Reference	24 VDC	**XB5DTB22**	**XB5DTB23**	**XB5DTB24**	**XB5DTB25**
	100...240 VAC 50/60 Hz	**XB5DTGM2**	**XB5DTGM3**	**XB5DTGM4**	**XB5DTGM5**





4 3-phase pilot lights with integral LED

Description	Panel-mounted 3-phase voltage indicator pilot lights with 3 LEDs in 30 mm hole		
Connection	Faston connector, 6.3 mm		
Colors	Red, green, yellow		3 white LEDs
Complete product	400 VAC	**XB5EV57K4**	**XB5EV57L4**





5 XB4 complete potentiometers

Description	Panel-mounted complete potentiometers in 22.5 mm hole		
Connection	Screw terminals		
Resistance (in kΩ)	1	4.7	10
Reference	**XB4BD912R1K**	**XB4BD912R4K7**	**XB4BD912R10K**
Resistance (in kΩ)	47	100	470
Reference	**XB4BD912R47K**	**XB4BD912R100K**	**XB4BD912R470K**

6 XB5 complete potentiometers

Description	Panel-mounted complete potentiometers in 22.5 mm hole			
Connection	Screw terminals			
Resistance (in kΩ)	1	2.2	4.7	10
Reference	**XB5AD912R1K**	**XB5AD912R2K2**	**XB5AD912R4K7**	**XB5AD912R10K**
Resistance (in kΩ)	47	100	470	
Reference	**XB5AD912R47K**	**XB5AD912R100K**	**XB5AD912R470K**	

Harmony: other functions





1 Harmony XB5S biometric switches standalone

Receiver	Monostable	Bistable
Power supply	24 VDC/PNP output	
Cable 2 m	**XB5S2B2L2**	**XB5S1B2L2**
M12 connector	**XB5S2B2M12**	**XB5S1B2M12**

2 Harmony XB5S biometric switches RGPD/USB

Receiver	Monostable		Bistable	
Power supply	24 VDC/PNP output			
Features	Standalone RGPD	USB RGPD	Standalone RGPD	USB RGPD
Cable 2 m	**XB5S6B2L2**	–	**XB5S7B2L2**	–
M12 connector	**XB5S6B2M12**	–	**XB5S7B2M12**	–



3 Harmony XB5 digital panel meter

Product type	Display module	
LED color	Green	Red
Input range	4...20 mA DC	
Reference	**XBH1AA0R4**	**XB1HAA0G4**



4 Harmony XB4R/XB5R wireless and batteryless pushbuttons

Receiver	Non-programmable + 1 black cap		
Power supply	24 VDC		
Pushbutton	1 plastic	1 metal	1 plastic in handy box
Reference	**XB5RFB01**	**XB4RFA02**	**XB5RMB03**



5 Harmony Hub wireless gateway

Receiver	Modbus/TCP Ethernet	Modbus serial line
Power supply	24 VDC	
Reference	**ZBRN1**	**ZBRN2**
Accessories	**ZBRCETH**	–
Relay antenna	**ZBRA1**	**ZBRA1**
Passive antenna	**ZBRA2**	**ZBRA2**

***Note**: A wide range of wireless sensors can be connected to the Harmony Hub gateway to collect functional and environmental data.*

Accessories for Harmony pushbuttons








1 Harmony Hub Ecosystem *(1)*

Type	Temperature & Humidity Sensor	Self-powered current monitoring wireless clamp	Rope pull switch with wireless battery-less transmitter
Measurement Range	-25...90 °C at 35 °C 10%...98%	0.5 A to 500 A	–
Reference	**ZBRTT1**	**ZBRTC●**	**ZBRP1**

2 Contact blocks (for XB4 and XB5 pushbuttons)

Type		Electrical blocks					Body fixing collars for XB4 or XB5	
Contact		NO	NC	NC with monitoring	NO	NC	–	–
Connection		Screw clamp terminals			Compact push-in		–	–
Sold in lots of		5	5	5	4	4	10	
Reference	Contact block	**ZBE101**	**ZBE102**	**ZBE302**	**ZBE1015**	**ZBE1025**	**ZB4BZ009**	**ZB5AZ009**

3 Light blocks with integral LED (for XB4 and XB5 pushbuttons)

Color			Universal for all colour (UN Universal)	
Connection			Screw clamp terminals	Compact push-in
Reference	Contact block	24 VAC/VDC	**ZBVB1**	**ZBVB15**
		110...120 VAC	**ZBVG1**	**ZBVG15**
		230...240 VAC	**ZBVM1**	**ZBVM15**

4 Wireless and battery-less interface to be used with ZBRR and ZBRN (for XB4 and XB5 pushbuttons)

Function	Push only (1 state)	Push and release (2 states)
Reference	**ZBRT1**	**ZBRT2**

5 Visual feedback for wireless pushbutton

Function	Visual feedback confirming the signal reception of ZBRT wireless transmitter
Reference	**ZBRV1**

6 Legend holders 30 x 40 mm for 8 X 27 mm legends

White marking/Red or black background						Black marking/Yellow background		
O	–	I	**ZBY2147**	AUTO	–	ARRET D'URGENCE	**ZBY9120**	**ZBY9130T** *(2)*
OFF	**ZBY2312**	ON	**ZBY2311**	START	**ZBY2303**	EMERGENCY STOP	**ZBY9320**	**ZBY9330T** *(2)*
Without marking/Red or black background						Without marking/Yellow background		
Red	**ZBY2101**	Black	**ZBY2101**				**ZBY9121**	

Ø 60 legends for Emergency stop







7 Illuminated ring without legend for customization (use with ZBY9W101)

Description	Ø60 mm, can be used with all Ø22 mm heads	Ø60 mm, can be used with all Ø22 mm heads
Marking	No Marking	No Marking
Signaling	Fixed, Red	Fixed, Red + white
Supply Voltage	24 V	24 V
Reference	**ZBY9W2B501**	**ZBY9W3B501**

8 Customizable Circular legend for illuminated ring without legend *(2)*

Description	Ø60 mm
Reference	**ZBY9W101**

9 Legend holders for flush mounting head

Without legend				With blank legend without marking, black or red background			
8 x 27 mm legend for XB4F & XB5F	**ZBZF32**	18 x 27 mm legend	**ZBZF33**	8 x 27 mm legend	**ZBYF2101**	18 x 27 mm legend	**ZBYF6101**

10 Transparent boots for pushbuttons (sold in lots of 10)

For pushbuttons	Circular projecting	Circular flush	Circular flush or projecting	Flush, double headed	Triple headed	Flush/projecting double headed	Flush/projecting double headed for water jet cleaning
Reference	**ZBP0**	**ZBPA**	**ZBP0A**	**ZBA708**	**ZBA709**	**ZBA710**	**ZBA711**

11 Flush mounting kits

For use with	Pushbuttons and pilot lights				Selector switches and illuminated pushbuttons		
Range and appearance	XB4 chromium plated, depth 9.8 mm	XB5 plastic, black depth 9.8 mm	XB5 plastic, black, depth 12.3 mm with 1- or 2-line legend		XB5 plastic, black, depth 12.3 mm	XB5 plastic, black, depth 12.3 mm with 1- or 2-line legend	
			1-line legend	2-line legend		1-line legend	2-line legend
Reference	**ZB4BZ021**	**ZB5AZ021**	**ZB5AZ023**	**ZB5AZ025**	**ZB5AZ022**	**ZB5AZ024**	**ZB5AZ026**

(1) These are examples of compatible sensors, more information is available in the product catalog.
(2) Create customized marking on this reference using the web customization tool.

Harmony XAP die-cast metal enclosures



1 Harmony XAPK (yellow RAL 1004) *(1)*

Usable depth		49 mm		74.5 mm	
Number of cut-outs (22 mm)		0	1	0	1
Dimension (W x H)/ Cable gland hole	80 x 80 / M20	**XAPK11**	**XAPK1201**	**XAPK14**	**XAPK1501**

2 Harmony XAPD with 49 mm usable depth (grey RAL 7035) *(1)*

Number of cut-outs (22 mm)		0	1	2	3	4	6
Dimension (W x H)/ Cable gland hole	80 x 80 / M20	**XAPD11**	**XAPD1201**	**XAPD1202**	–	–	–
	80 x 130 / M20	**XAPD21**	–	**XAPD2202**	**XAPD2203**	**XAPD2204**	–
	80 x 175 / M25	**XAPD31**	–	–	**XAPD3203**	**XAPD3204**	**XAPD3206**

3 Harmony XAPD with 74.5 mm usable depth (grey RAL 7035) *(1)*

Number of cut-outs (22 mm)		0	1	2	3	4	5	6	8	10
Dimension (W x H)/ Cable gland hole	80 x 80 / M20	**XAPD14**	**XAPD1501**	**XAPD1502**	–	–	–	–	–	–
	80 x 130 / M20	**XAPD24**	–	**XAPD2502**	**XAPD2503**	**XAPD2504**	–	–	–	–
	80 x 175 / M25	**XAPD34**	–	–	**XAPD3503**	**XAPD3504**	–	**XAPD3506**	–	–
	80 x 220 / M25	**XAPD44**	–	–	–	**XAPD4504**	**XAPD4505**	**XAPD4506**	**XAPD4508**	–
	80 x 310 / M32	**XAPD54**	–	–	–	–	**XAPD5505**	–	**XAPD5508**	**XAPD5510**
Number of cut-outs (30 mm)		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**8**	**10**
Dimension (W x H)/ Cable gland hole	80 x 80 / M20	–	**XAPD1601** *(2)*	–	–	–	–	–	–	–
	80 x 130 / M20	–	–	**XAPD2602** *(2)*	–	–	–	–	–	–
	80 x 175 / M25	–	–	–	**XAPD3603** *(2)*	–	–	–	–	–
	80 x 220 / M25	–	–	–	–	**XAPD4604** *(2)*	–	–	–	–
	80 x 310 / M32	–	–	–	–	–	–	**XAPD5606** *(2)*	–	–

4 Harmony XAPO with 74.5 mm usable depth (orange RAL 2008)

Cut-outs diameter		22 mm					30 mm with notch			
Number of cut-outs		1	2	3	4	6	1	2	3	4
Dimension (W x H)/ Cable gland hole	80 x 80 / M20	**XAPO1501**	–	–	–	–	**XAPO1601**	–	–	–
	80 x 130 / M20	–	**XAPO2502**	–	–	–	–	**XAPO2602**	–	–
	80 x 175 / M25	–	–	**XAPO3503**	**XAPO3504**	–	–	–	**XAPO3603**	–
	80 x 220 / M25	–	–	–	–	**XAPO4506**	–	–	–	**XAPO4604**

5 Harmony XAPG with 49 mm usable depth (grey RAL 7032)

Number of cut-outs (22 mm)		0	1	2	3	4
Dimension (W x H)/ Cable gland hole	80 x 80 / 3/4 NPT	**XAPG19100**	**XAPG19201**	**XAPG19702**	–	–
	80 x 130 / 3/4 NPT	–	–	**XAPG29202**	**XAPG29703**	
	80 x 175 / 3/4 NPT	**XAPG39100**	–	–	**XAPG39203**	**XAPG39704**

6 Harmony XAPG with 74.5 mm usable depth (grey RAL 7032)

Number of cut-outs (22 mm)		0	1	2	3	4	5
Dimension (W x H)/ Cable gland hole	80 x 80 / 3/4 NPT	**XAPG19400**	**XAPG19501**	–	–	–	–
	80 x 130 / 3/4 NPT	–	–	**XAPG29502**	–	–	–
	80 x 175 / 3/4 NPT	–	–	–	**XAPG39503**	**XAPG39804**	–
	80 x 220 / 3/4 NPT	–	–	–	–	**XAPG49504**	–
	80 x 310 / 3/4 NPT	–	–	–	–	–	**XAPG59505**
Number of cut-outs (30 mm)		0	1	2	3	4	5
Dimension (W x H)/ Cable gland hole	80 x 80 / 3/4 NPT	–	–	–	–	–	–

(1) Full customization of front cover with legend panel is possible through online product configurator.
(2) Flush mounting head can be mounted with ZB4FBZ014 accessory.

Harmony XA2A pushbutton



Spring return pushbuttons with flush push

Shape of head	Type of contacts NO	Type of contacts NC	Color of push	Marking	Reference	Weight kg/*lb*
Unmarked						
	1	–	White	–	**XA2AA11**	0.033/*0.073*
	1	–	Black	–	**XA2AA21**	0.033/*0.073*
	1	1	Black	–	**XA2AA25**	0.046/*0.101*
	1	–	Green	–	**XA2AA31**	0.033/*0.073*
	1	1	Green	–	**XA2AA35**	0.046/*0.101*
	1	–	Yellow	–	**XA2AA51**	0.033/*0.073*
	1	–	Blue	–	**XA2AA61**	0.033/*0.073*
	1	–	Red	–	**XA2AA41**	0.033/*0.073*
	–	1	Red	–	**XA2AA42**	0.033/*0.073*
	1	1	Red	–	**XA2AA45**	0.046/*0.101*
Marked						
	1	–	Green	“I”	**XA2AA3311**	0.032/*0.071*
	1	–	Black	“⬆”	**XA2AA3351**	0.032/*0.071*
	1	–	White	“⬆”	**XA2AA3341**	0.032/*0.071*
	–	1	Red	“O”	**XA2AA4322**	0.032/*0.071*
	–	1	Red	“STOP”	**XA2AA4342**	0.032/*0.071*
	1	–	Blue	“⬍”	**XA2AA6511**	0.032/*0.071*

Mushroom head pushbuttons, spring return

Shape of head	Type of contacts NO	Type of contacts NC	Color of push	Diameter Ø (mm)/*in.*	Reference	Weight kg/*lb*
	1	–	Black	40/*1.575*	**XA2AC21**	0.047/*0.104*
	1	–	Green	40/*1.575*	**XA2AC31**	0.047/*0.104*
	1	–	Yellow	40/*1.575*	**XA2AC51**	0.047/*0.104*
	–	1	Red	40/*1.575*	**XA2AC42**	0.047/*0.104*

Pushbuttons, push-push with flush push

Shape of head	Type of contacts NO	Type of contacts NC	Color of push	Reference	Weight kg/*lb*
Complete unit					
	1	–	Black	**XA2AH021**	0.036/*0.088*
	1	–	Green	**XA2AH031**	0.036/*0.088*
	–	1	Red	**XA2AH042**	0.036/*0.088*
	1	–	Yellow	**XA2AH051**	0.036/*0.088*
	1	–	Blue	**XA2AH061**	0.036/*0.088*

Harmony XA2A pushbutton






Double-headed pushbuttons, spring return

Shape of head	Description	Type of contacts NO	Type of contacts NC	Caps (1) Marking	Caps (1) Background color	Reference	Weight kg/lb
Complete unit							
	1 flush push, green 1 flush push, red	1	1	"I" "O"	Green Red	**XA2EA7A3415**	0.048/*0.106*

Double-headed pushbuttons with 1 white central pilot light block

Shape of head	Description	Type of contacts NO	Type of contacts NC	Caps (1) Marking	Caps (1) Background color	Pilot light Voltage V	Reference	Weight kg/lb
Complete units								
	1 flush push, green 1 flush push, red 1 central pilot light block, white	1	1	"I" "O"	Green Red	24 ⎓	**XA2EW7L3741B5**	0.072/*0.159*
Protected LED						220...230 ∿	**XA2EW7L3741M5**	0.072/*0.159*

Emergency switching off pushbuttons

Shape of head	Type of push	Type of contacts NC	Diameter Ø (mm)/*in.*	Reference	Weight kg/lb
	Push-pull	1	40/*1.575*	**XA2AT42**	0.057/*0.126*
	Turn to release	1	30/*1.181*	**XA2AS442**	0.048/*0.106*
			40/*1.575*	**XA2AS542**	0.058/*0.128*
			60/*2.362*	**XA2AS642**	0.068/*0.150*

Note: *For information on dimensions, please refer to the Schneider Electric website, Harmony XA2 offer.*
(1) These caps are factory assembled and cannot be removed (risk of damage).

Harmony XA2A pushbutton





Selector switches, with standard handle or with long handle

Shape of head	Type of push	Type of contacts NO	Type of contacts NC	Number and type of positions		Reference	Weight kg/*lb*
	Standard handle	1	–	2 - stay put		**XA2AD21**	0.041/*0.090*
		–	1	2 - stay put		**XA2AD22**	0.042/*0.093*
		1	1	2 - stay put		**XA2AD25**	0.055/*0.121*
		2	–	3 - stay put		**XA2AD33**	0.054/*0.119*
		2	–	3 - spring return from 2 sides		**XA2AD53**	0.054/*0.119*
		1	–	2 - spring return		**XA2AD41**	0.041/*0.090*
	Long handle	1	–	2 - stay put		**XA2AJ21**	0.043/*0.095*
		1	1	2 - stay put		**XA2AJ25**	0.057/*0.126*
		2	–	3 - stay put		**XA2AJ33**	0.056/*0.123*
		2	–	3 - spring return from 2 sides		**XA2AJ53**	0.056/*0.123*

Key switches

Shape of head	Type of push	Type of contacts NO	Type of contacts NC	Number and type of positions		Reference	Weight kg/*lb*
	Key	1	–	2 - stay put, one side pull-out		**XA2AG21**	0.063/*0.139*
		2	–	2 - stay put, two sides pull-out		**XA2AG43**	0.076/*0.168*
		2	–	2 - spring return, one side pull-out		**XA2AG63**	0.076/*0.168*
		2	–	3 - spring return from 2 sides, middle pull-out		**XA2AG73**	0.076/*0.168*
		2	–	3 - stay put, middle pull-out		**XA2AG33**	0.076/*0.168*
		2	–	3 - stay put, 3 sides pull-out		**XA2AG03**	0.076/*0.168*

Note: *For information on dimensions, please refer to the Schneider Electric website, Harmony XA2 offer.*

Harmony XA2A pushbutton: other functions



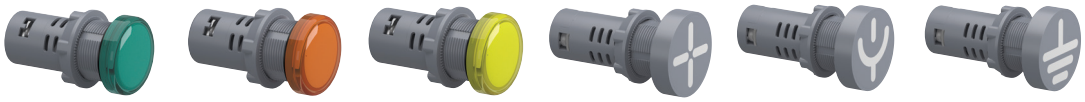


Pilot lights with integral LED, screw clamp terminal connection

Shape of head	Supply voltage V	Color of lens	Sold in lots of	Reference	Weight kg/*lb*
	12 ≂	White	10	**XA2EVJ1LC**	0.019/*0.041*
		Green	10	**XA2EVJ3LC**	0.019/*0.041*
		Red	10	**XA2EVJ4LC**	0.019/*0.041*
		Amber	10	**XA2EVJ5LC**	0.019/*0.041*
		Blue	10	**XA2EVJ6LC**	0.019/*0.041*
		Yellow	10	**XA2EVJ8LC**	0.019/*0.041*
	24 ≂	White	10	**XA2EVB1LC**	0.019/*0.041*
		Green	10	**XA2EVB3LC**	0.019/*0.041*
		Red	10	**XA2EVB4LC**	0.019/*0.041*
		Amber	10	**XA2EVB5LC**	0.019/*0.041*
		Blue	10	**XA2EVB6LC**	0.019/*0.041*
		Yellow	10	**XA2EVB8LC**	0.019/*0.041*
		Green/Red	5	**XA2EVB34LC**	0.022/*0.049*
	30 ≂	White	10	**XA2EVC1LC**	0.019/*0.041*
		Green	10	**XA2EVC3LC**	0.019/*0.041*
		Red	10	**XA2EVC4LC**	0.019/*0.041*
		Amber	10	**XA2EVC5LC**	0.019/*0.041*
		Blue	10	**XA2EVC6LC**	0.019/*0.041*
		Yellow	10	**XA2EVC8LC**	0.019/*0.041*
	48 ≂	White	10	**XA2EVE1LC**	0.019/*0.041*
		Green	10	**XA2EVE3LC**	0.019/*0.041*
		Red	10	**XA2EVE4LC**	0.019/*0.041*
		Amber	10	**XA2EVE5LC**	0.019/*0.041*
		Blue	10	**XA2EVE6LC**	0.019/*0.041*
		Yellow	10	**XA2EVE8LC**	0.019/*0.041*
	60...63.5 ≂	White	10	**XA2EVEE1LC**	0.019/*0.041*
		Green	10	**XA2EVEE3LC**	0.019/*0.041*
		Red	10	**XA2EVEE4LC**	0.019/*0.041*
		Amber	10	**XA2EVEE5LC**	0.019/*0.041*
		Blue	10	**XA2EVEE6LC**	0.019/*0.041*
		Yellow	10	**XA2EVEE8LC**	0.019/*0.041*

Note: *For information on dimensions, please refer to the Schneider Electric website, Harmony XA2 offer.*

Harmony XA2A pushbutton: other functions



Pilot lights with integral LED, screw clamp terminal connection

Shape of head	Supply voltage V	Color of lens	Sold in lots of	Reference	Weight kg/*lb*
	110 ⎓	White	10	XA2EVF1LC	0.019/*0.041*
		Green	10	XA2EVF3LC	0.019/*0.041*
		Red	10	XA2EVF4LC	0.019/*0.041*
		Amber	10	XA2EVF5LC	0.019/*0.041*
		Blue	10	XA2EVF6LC	0.019/*0.041*
		Yellow	10	XA2EVF8LC	0.019/*0.041*
	220 ⎓	White	10	XA2EVMD1LC	0.019/*0.041*
		Green	10	XA2EVMD3LC	0.019/*0.041*
		Red	10	XA2EVMD4LC	0.019/*0.041*
		Amber	10	XA2EVMD5LC	0.019/*0.041*
		Blue	10	XA2EVMD6LC	0.019/*0.041*
		Yellow	10	XA2EVMD8LC	0.019/*0.041*
	220-230 ∿	White	10	XA2EVM1LC	0.019/*0.041*
		Green	10	XA2EVM3LC	0.019/*0.041*
		Red	10	XA2EVM4LC	0.019/*0.041*
		Amber	10	XA2EVM5LC	0.019/*0.041*
		Blue	10	XA2EVM6LC	0.019/*0.041*
		Yellow	10	XA2EVM8LC	0.019/*0.041*
		Green/Red	5	XA2EVM34LC	0.022/*0.049*
	380...400 ∿	White	10	XA2EVQ1LC	0.019/*0.041*
		Green	10	XA2EVQ3LC	0.019/*0.041*
		Red	10	XA2EVQ4LC	0.019/*0.041*
		Amber	10	XA2EVQ5LC	0.019/*0.041*
		Blue	10	XA2EVQ6LC	0.019/*0.041*
		Yellow	10	XA2EVQ8LC	0.019/*0.041*

Indicators with integral LED, screw clamp terminal connection

Shape of head	Indicator type	Supply voltage V	Color of lens	Sold in lots of	Reference	Weight kg/*lb*
	**Isolation switch**	110 ∿	Green/Red	5	XA2EVF34SPC	0.027/*0.058*
		220...230 ∿	Green/Red	5	XA2EVM34SPC	0.027/*0.058*
		380...400 ∿	Green/Red	5	XA2EVQ34SPC	0.027/*0.058*
	**Circuit breaker**	110 ∿	Green/Red	5	XA2EVF34BPC	0.027/*0.058*
		220...230 ∿	Green/Red	5	XA2EVM34BPC	0.027/*0.058*
		380...400 ∿	Green/Red	5	XA2EVQ34BPC	0.027/*0.058*
	**Ground**	110 ∿	Green/Red	5	XA2EVF34GPC	0.027/*0.058*
		220...230 ∿	Green/Red	5	XA2EVM34GPC	0.027/*0.058*
		380...400 ∿	Green/Red	5	XA2EVQ34GPC	0.027/*0.058*

Note: *For information on dimensions, please refer to the Schneider Electric website, Harmony XA2 offer.*

Harmony XA2A pushbutton: accessories







Bulbs with BA9s base fitting and associated accessories

Description	Supply voltage V	Color	Sold in lots of	Unit reference	Weight kg/*lb*
LEDs	24 ≂	White	10	**DL1-LED241**	0.002/*0.004*
		Green	10	**DL1-LED243**	0.002/*0.004*
		Red	10	**DL1-LED244**	0.002/*0.004*
		Yellow	10	**DL1-LED245**	0.002/*0.004*
		Blue	10	**DL1-LED246**	0.002/*0.004*
	220 ≂	White	1	**DL1-LED2201**	0.002/*0.004*
		Green	1	**DL1-LED2203**	0.002/*0.004*
		Red	1	**DL1-LED2204**	0.002/*0.004*
		Yellow	1	**DL1-LED2205**	0.002/*0.004*
		Blue	1	**DL1-LED2206**	0.002/*0.004*

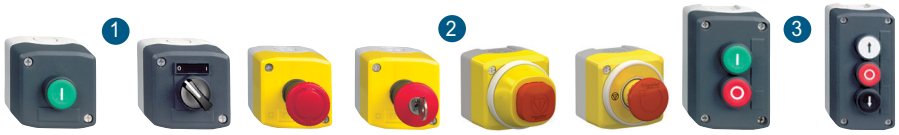
Description	Application	Sold in lots of	Unit reference	Weight kg/*lb*
Bezel tool	Tightening head fixing nut	1	**ZB5AZ905**	0.016/*0.035*
Anti-rotation plate	Prevents head from rotation	10	**ZB5AZ902**	0.008/*0.018*

Contact functions (for all XA2 pushbuttons and switches)

Screw clamp terminal connections

Description	To be used with	Type of contacts NO	Type of contacts NC	Sold in lots of	Unit reference	Weight kg/*lb*
Contact blocks	**All XA2 pushbuttons and switches**	1	–	1	**ZA2EE101**	0.014/*0.031*
		–	1	1	**ZA2EE102**	0.014/*0.031*

Harmony XAL plastic control stations



1 Control stations with 1 pushbutton, type XALD

Number and type of pushbuttons		1 start or stop			1 start and stop	
Color or type		Green	Green	Red	Handle	Key
Marking		"I" (white)	"START" (white)	"O" (white)	"O-I" (white)	"O-I" (white)
Contact		NO		NC	NO	
Connection		Screw clamp terminals				
Complete product	Flush pushbutton	**XALD102** *(1)*	**XALD103** *(1)*	**XALD112**	–	–
	Selector switch	–	–	–	**XALD134** *(1)*	**XALD144** *(1)*

2 Control stations with 1 Emergency stop pushbutton, type XALK

Number and type of pushbuttons	1 x Ø 40 trigger action Emergency stop mushroom head pushbutton						
Color	Red						
Type	Turn to release				Key release		
Contact	1 NC monitoring	NC	2 NC	2 NC + NO	NC	2 NC	2 NC + NO
Connection	Screw clamp terminals						
Complete product	**XALK1786**	**XALK178** *(1)*	**XALK178F** *(1)*	**XALK178G** *(1)*	**XALK188** *(1)*	**XALK188F**	**XALK188G** *(1)*
3	–	–	–	**XALK84W3BG**	–	–	–
	–	–	–	XALK178W3B140G	–	–	–

Control stations with pushbuttons, type XALD

Number and type of pushbuttons	2 start and stop flush mounting			2 up/down flush mounting		
Color/Marking	1 "I" green	1 "Start" green	1 pilot light 24 VDC	1 "Up" white		
	1 "O" red	1 "Stop" red	1 "I" green	1 "Down" black	1 "O" red	1 E-stop red
	–	–	1 "O" red	–	1 "Down" black	
Contact	NO + NC			2 NO	NO + NC + NO	
Connection	Screw clamp terminals					
Complete product	**XALD213** *(1)*	**XALD215** *(1)*	**XALD363B** *(1)*	**XALD222** *(1)*	**XALD324** *(1)*	**XALD328** *(1)*

(1) Add H7 for UL/CSA conforming version, e.g. XALD102H7.

Harmony XAC pendant control stations

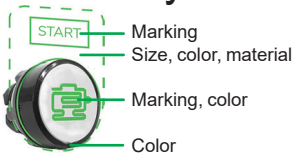


Harmony XACA pendant control stations for Ø 22 plastic signaling units

Number of pushbuttons	2	3	4	6	8
Type	Pistol grip		Standard		
Color	Yellow		Yellow		
Pushbutton 1: Raise *(1)*	Yes	Yes	Yes	Yes	Yes
Pushbutton 2: Lower *(1)*	Yes	Yes	Yes	Yes	Yes
Emergency stop *(2)*	–	Yes	–	–	–
Pushbutton 3: Left *(1)*	–	–	Yes	Yes	Yes
Pushbutton 4: Right *(1)*	–	–	Yes	Yes	Yes
Pushbutton 5: Forward *(1)*	–	–	–	Yes	Yes
Pushbutton 6: Reverse *(1)*	–	–	–	Yes	Yes
Pushbutton 7: O *(1)*	–	–	–	–	Yes
Pushbutton 8: I *(1)*	–	–	–	–	Yes
Reference	**XACA201**	**XACA2013**	**XACA471**	**XACA671**	**XACA871**

(1) With NO contact.
(2) With NC contact.

Choose your style with Harmony customization tool





Pushbutton Ø 22 mm: base product customizable *(1)*

Type	Harmony XB4B, metal	Harmony XB5A, plastic
Pushbutton, black, 1 NO contact block	**XB4BA21**	**XB5AA21**
Pilot light, red, 24 VAC/VDC	**XB4BVB4**	**XB5AVB4**
Legend plate, 30 x 50 mm, dark grey color	**ZBYM6101**	**ZBYP6101**
Legend holder, 30 x 50 mm	–	**ZBY6101**



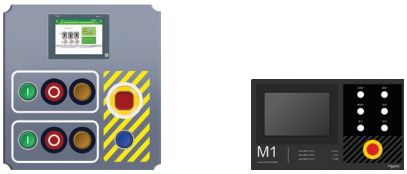
Flush mounted pushbutton: base product customizable *(1)*

Type	Harmony XB4F, metal	Harmony XB5F, plastic
Pushbutton, black, 1 NO contact block	**XB4FA21**	**XB5FA21**
Selector switch, 2 positions, 1 NO contact block	**XB4FD21**	**XB5FD21**
Pilot light, red, 24 VAC/VDC	**XB4FVB4**	**XB5FVB4**
Legend plate, 30 x 50 mm, dark grey color	–	**ZBYFP6101**
Legend holder, 40 x 50mm	–	**ZBYF2101**



Plastic control station: base product customizable *(1)*

Type	Grey color	Yellow color
1 hole	**XALD01**	**XALK01**
2 holes	**XALD02**	–
5 holes	**XALD05**	–



Legend panel: base product customizable *(1)*

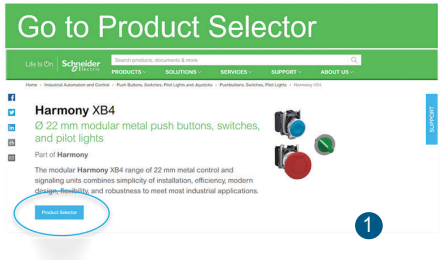
Template size (mm/*in.*)	Reference
100 x 100/*3.93 x 3.93*	**ZBYLEG101000**
300 x 400/*11.81 x 15.74*	**ZBYLEG304000**
500 x 400/*19.68 x 15.74*	–

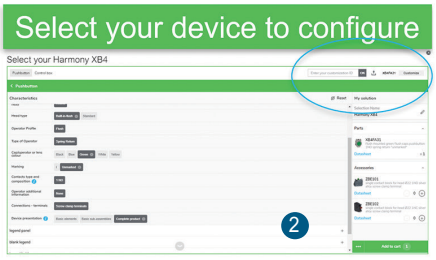
(1) Fast, easy, and intuitive: for other color or type

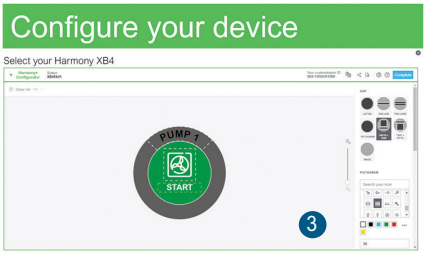
1. Go to Product Selector
2. Select your device
3. Define your customization

> Metal

> Plastic







Harmony XB7 Ø 22 monolithic pushbuttons



Pushbutton with flush push, unmarked

Color	White	Black	Green	Red	Yellow	Blue
Contact	NO			NO + NC		
Connection	Screw clamp terminals					
Complete product	XB7NA11	XB7NA21	XB7NA31	XB7NA45	–	XB7NA65



Pushbutton with flush push, marked

Color	White	Black	Green	Green	Red
Marking	⬆	⇩	"I" (white)	"START" (white)	"STOP" (white)
Contact	NO			NO	NC
Connection	Screw clamp terminals				
Complete product	XB7NA11341	XB7NA21343	XB7NA3131	XB7NA3133	XB7NA4234





Ø 40 trigger action Emergency stop mushroom head pushbuttons

Color	Red		
Contact	NO + NC Push-pull	NO + NC Turn to release	2 NC Key release
Connection	Screw clamp terminals		
Complete product	XB7NT845	XB7NS8445	XB7NS9444



Pilot lights with integral LED

Color		Green	Red	Yellow	Blue	Clear	Orange
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	XB7EV03BP	XB7EV04BP	XB7EV05BP	XB7EV06BP	XB7EV07BP	XB7EV08BP
	120 VAC	XB7EV03GP	XB7EV04GP	XB7EV05GP	XB7EV06GP	XB7EV07GP	XB7EV08GP
	230 VAC	XB7EV03MP	XB7EV04MP	XB7EV05MP	XB7EV06MP	XB7EV07MP	XB7EV08MP



Illuminated pushbutton with flush push with integral LED

Color		Green	Red	Orange	Blue	Clear	Yellow
Contact		NO + NC					
Connection		Screw clamp terminals					
Complete product	24 VAC/VDC	XB7NW33B1	XB7NW34B1	XB7NW35B1	XB7NW36B1	XB7NW37B1	XB7NW38B1
	120 VAC	–	XB7NW34G1	–	–	–	–
	230 VAC	XB7NW33M1	XB7NW34M1	–	–	–	–



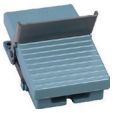
Selector switches with black handle

Positions		2 ⟋	2 ⟋	3 ⟋⟍	2 ⟋⟍	3 ⟋⟍
Type		Stay put			Key withdrawal in LH position	Key withdrawal in center position
Contact		NO	NO + NC	2 NO	NO	2 NO
Connection		Screw clamp terminals				
Complete product	24 VAC/VDC	XB7ND21	XB7ND25	XB7ND33	XB7NG21	XB7NG33









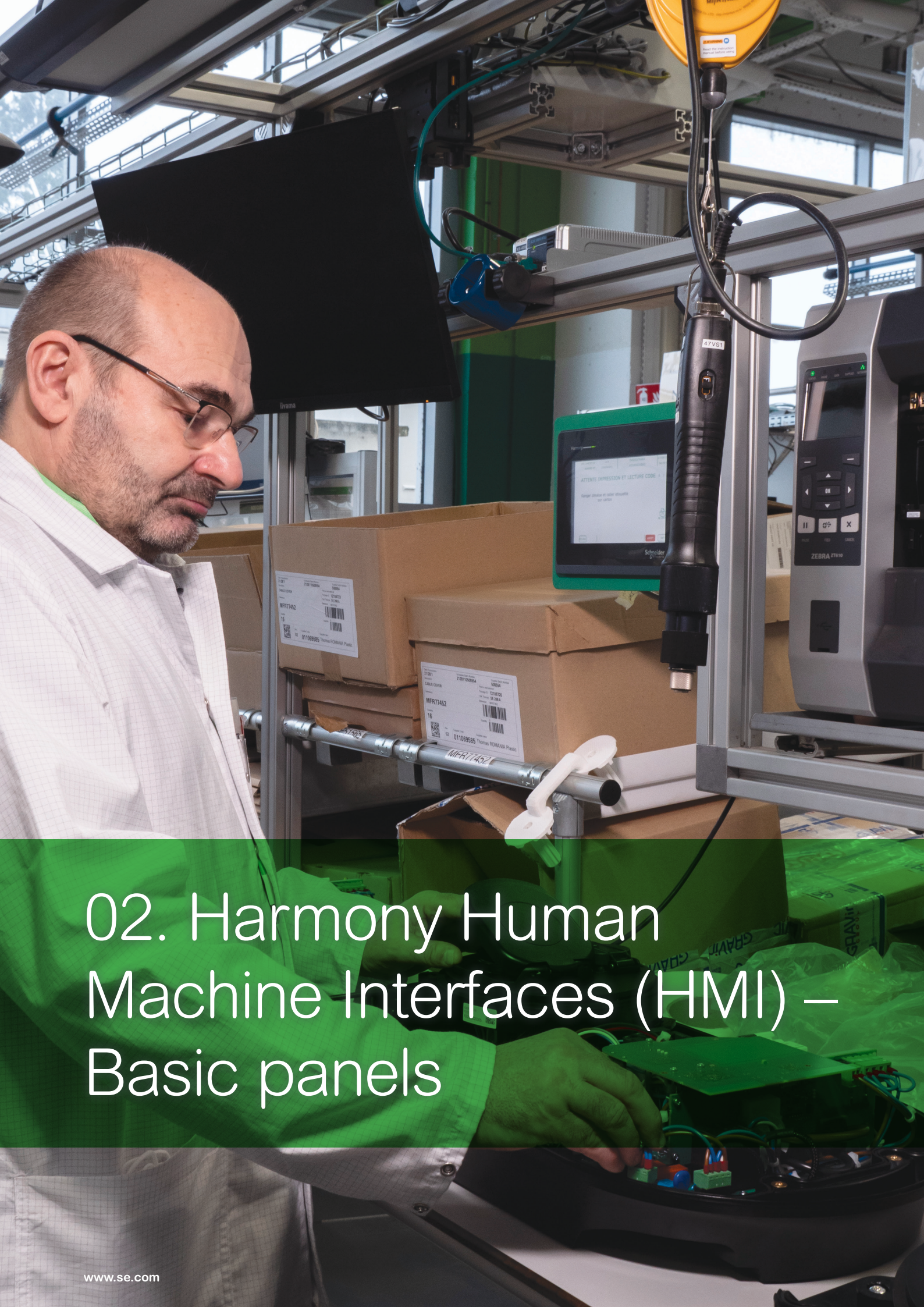
Harmony XD4 joystick controllers						
Number of directions	2	4	2	4		
Contact	1 NO per direction					
Position	Stay put		Spring return			
Reference	**XD4PA12**	**XD4PA14**	**XD4PA22**	**XD4PA24**		
Harmony cam switches						
Function	Ammeter	Voltmeter	Changeover	ON-OFF switches		Stepping
Thermal current	12 Amps					
Number of poles	6	6	4	1	3	3
Multi-screw fixing	**K1F003MLH**	**K1F027MLH**	**K1D002ULH**	**K1A001ALH**	**K1C003ALH**	**K1C003QLH**
Ø 22 fixing	**K1F003MCH**	**K1F027MCH**	**K1D002UCH**	**K1A001ACH**	**–**	**K1C003QCH**
Harmony XPE foot switches						
Material/Color	Plastic black	Plastic yellow	Metal blue	Metal blue	Metal blue	Metal orange
Cover	No	Yes	No		Yes	
Contact		1 NC + 1 NO		2 NC + 2 NO	1 NC + 1 NO	
Without trigger mechanism	**XPEA110**	**XPEY310**	**XPEM110**	**XPEM111**	**XPEM310**	**XPER310**
Trigger mechanism	**–**	**XPEY510**	**XPEM810**	**–**	**XPEM510**	**XPER510**

Harmony remote control system and pendant control stations for hoisting





Harmony Pocket Remote						
Transmitter	**No. of pushbuttons**	3	4	6	8	10
	Reference	**ZART03**	**ZART04**	**ZART06**	**ZART08**	**ZART10**
Receiver	**Connection**	Pre-wired 1.5 m				
	Power supply	12-24 VDC				
	Standard output	5		11		
	Reference	**ZARB05WSP**		**ZARB11WSP**		
Harmony wireless remote control system (compact)						
Motion pushbutton		6				
Auxiliary pushbuttons		1				
LED or display		LED				
Emergency stop mushroom head		1 Emergency stop mushroom head SIL 2 cat 3 PLd				
Base	Standard output	10				
	Safety output	2				
Handheld	Reference	**ZART8LS**				
Base	Power supply	48...240 VAC				24 VDC
	Connection	Cable gland		Pre-wired 1.5 m		
	Reference	**ZARB10WS**		**ZARB10WSP**		**ZARB10WSPDC**



02. Harmony Human Machine Interfaces (HMI) – Basic panels

Harmony STO7, ST6 and STW6 models





Harmony STO7 touch panels - most compact panels

Screen size		4.3”		
Screen resolution (pixels)		480 x 272		
Touch screen or keypad		Touch screen		
Software		EcoStruxure Operator Terminal Expert		
Memory capacity	Application memory	26 MB		
	Backup memory	128 KB		
	Expansion memory	No		
Communication	Ethernet port	No		1 LAN port
	Serial line	RS-232C (9-way terminal block)	RS-232C/RS-485 (RJ45 8-way)	No
	USB connection	1 type A host connector + 1 mini-B connector		
Operating temperature		0…50 °C		
Industrial certifications		CE, RCM, EAC, KC, UL, cUL, IECEx / ATEX Zone 2/22, RoHS, WEEE, REACH		
Cut-out (mm) *(1)*		112.5 x 77.5		
Dimensions (mm)		124.9 x 90.4 x 38.8		
Reference		**HMISTO705**	**HMISTO715**	**HMISTO735**





Harmony ST6 - New level of aesthetics with visually powerful EcoStruxure Operator Terminal Expert software

Screen size		4.3”	7”	10.1”	12.1”	15.6”
Screen resolution (pixels)		480 x 272	800 x 480	1,024 x 600	1,280 x 800	1,366 x 768
Touch screen or keypad		Touch screen				
Software		EcoStruxure Operator Terminal Expert				
Memory capacity	Application memory	128 MB				
	Backup memory	NVRAM 512 KB				
	Expansion memory	No				
Communication	Ethernet port	IEEE802.3i/IEEE802.3u, 10BASE-T/ 100BASE-TX x1	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX x2			
	Serial line	RS-232C/485 (COM1)	RS-232C (COM1) and RS-485 (COM2)			
	USB connection	USB 2.0 (Type A) + USB 2.0 (micro-B)				
Operating temperature		0...50 °C				
Industrial certifications		CE, UL, cUL, RCM, KC, EAC, RoHS, WEEE, REACH				
Cut-out (mm)		118.5 x 92.5	190 x 135	255 x 185	295 x 217	394 x 250
Dimensions (mm)		134.5 x 108.5 x 43	208 x 153 x 45	273 x 203 x 47	313 x 235 x 50	412 x 268 x 50
Reference		**HMIST6200**	**HMIST6400**	**HMIST6500**	**HMIST6600**	**HMIST6700**





Harmony STW6 - New level of aesthetics and ready-to-use with a pre-installed browser

Screen size		4.3”	7”	10.1”	12.1”	15.6”
Screen resolution (pixels)		480 x 272	800 x 480	1,024 x 600	1,280 x 800	1,366 x 768
Touch screen or keypad		Touch screen				
Software		Linux Browser HTML5				
Memory capacity	System memory	512 MB				
	Backup memory	NVRAM 128 KB				
	Expansion memory	No				
Communication	Ethernet port	IEEE802.3i/IEEE802.3u, 10BASE-T/ 100BASE-TX x1	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX x2			
	Serial line	No				
	USB connection	USB 2.0 (Type A) + USB 2.0 (micro-B)				
Operating temperature		0...50 °C				
Industrial certifications		CE, UL, cUL, RCM, KC, EAC, RoHS, WEEE, REACH				
Cut-out (mm)		118.5 x 92.5	190 x 135	255 x 185	295 x 217	394 x 250
Dimensions (mm)		134.5 x 108.5 x 43	208 x 153 x 45	273 x 203 x 47	313 x 235 x 50	412 x 268 x 50
Reference		**HMISTW6200**	**HMISTW6400**	**HMISTW6500**	**HMISTW6600**	**HMISTW6700**

(1) An accessory adapter is available to fit in monochrome STO cut-out.

Harmony STM6 modular, faceless and Edge Box HMI models





2

Harmony STM6 - New level of aesthetics with unique pushbutton 22 mm mounting system				
Screen size		4.3”	7”	–
Screen resolution (pixels)		480 x 272	800 x 480	–
Touch screen or keypad		Touch screen		–
Software		EcoStruxure Operator Terminal Expert		
Memory capacity	Application memory	128 MB		
	Backup memory	NVRAM 512 KB		
	Expansion memory	No		
Communication	Ethernet port	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX		
	Serial line	RS-232C/485 (COM1)x2		
	USB connection	USB 2.0 (Type A) + USB 2.0 (micro-B)		
Operating temperature		0...50 °C		
Industrial certifications		CE, UL, cUL, RCM, KC, EAC, UL Class1 Div2, Marine, RoHS, WEEE, REACH		
Cut-out (mm)		hole 22.5	hole 22.5	DIN Rail mounting
Dimensions (mm)		145.6 x 108.2 x 53.9	201.2 x 137.2 x 57.7	150.49 x 109.97 x 63.3
Reference		**HMISTM6200**	**HMISTM6400**	**HMISTM6BOX** *(1)*





Harmony Edge Box HMI - affordable box to get ready for Cloud service thanks to the power of EcoStruxure Machine SCADA Expert		
Software		EcoStruxure Machine SCADA Expert
Memory	Device memory	1GB
	Application memory	220 MB
Communication	Ethernet port	2 x Ethernet TCP/IP (10BASE-T/100BASE-TX)
	Serial line	RS-232C/485 (COM 1)
	USB connection	1x USB 2.0 (Type A), 1 x USB 2.0 Micro-B
Operating temperature		0…60°C
Industrial certifications		CE, UL, cUL, RCM, KC, EAC, UL Class1 Div2, Marine, RoHS, WEEE, REACH
Mounting		DIN Rail mounting
Dimensions (mm)		150.49 x 109.97 x 63.3
Reference		**HMISTM6BOXIOT** *(2)*

(1) Web Viewer run time license pre-activated.
(2) Runtime 500 tags EcoStruxure Machine SCADA Expert pre-activated + 1 Mobile Access Client activated + EcoStruxure Secure Connect pre-installed.

Programming software



EcoStruxure Operator Terminal Expert, programming software for Harmony STO7, ST6 and STM6 basic panels		
Compatibility	Harmony STO7, ST6 and STM6 basic panels	
Type of EcoStruxure Operator Terminal Expert license	Professional License *(1)*	Basic Edition License *(2)*
Number of stations	1	
License format	Digital	Digital
License duration	Unlimited	
Reference	**HMIPELCZSPAZZ**	**HMIEELCZLSPAZZ**

Web Viewer run time licenses - EcoStruxure Operator Terminal Expert Monitor and operate the HMI screen remotely with mirroring function			
Compatibility	Harmony ST6 and STM6 panels powered by EcoStruxure Operator Terminal Expert		
License type	Single	Team	Entity
Number of Operator Panels	1	10	100
Licenses format	Digital		
License Duration	Unlimited (not transferable between HMI operator panels)		
Reference	**HMIWRT001A**	**HMIWRT010A**	**HMIWRT100A**



EcoStruxure Machine SCADA Expert, programming software for Edge Box HMI	
Compatibility	Harmony Edge Box HMI HMISTM6BOXIOT
Type license	Buildtime 500 tags
Number of stations	1
License format	Digital
License Duration	Unlimited
Reference	**HMIEMSEBT500A**

(1) Supports Web Server API in ST6/STO7 and OPC UA in ST6.
(2) Does not support Web Server API or OPC UA.

2

Display of text messages, graphic objects, and synoptic views
Control and configuration of data

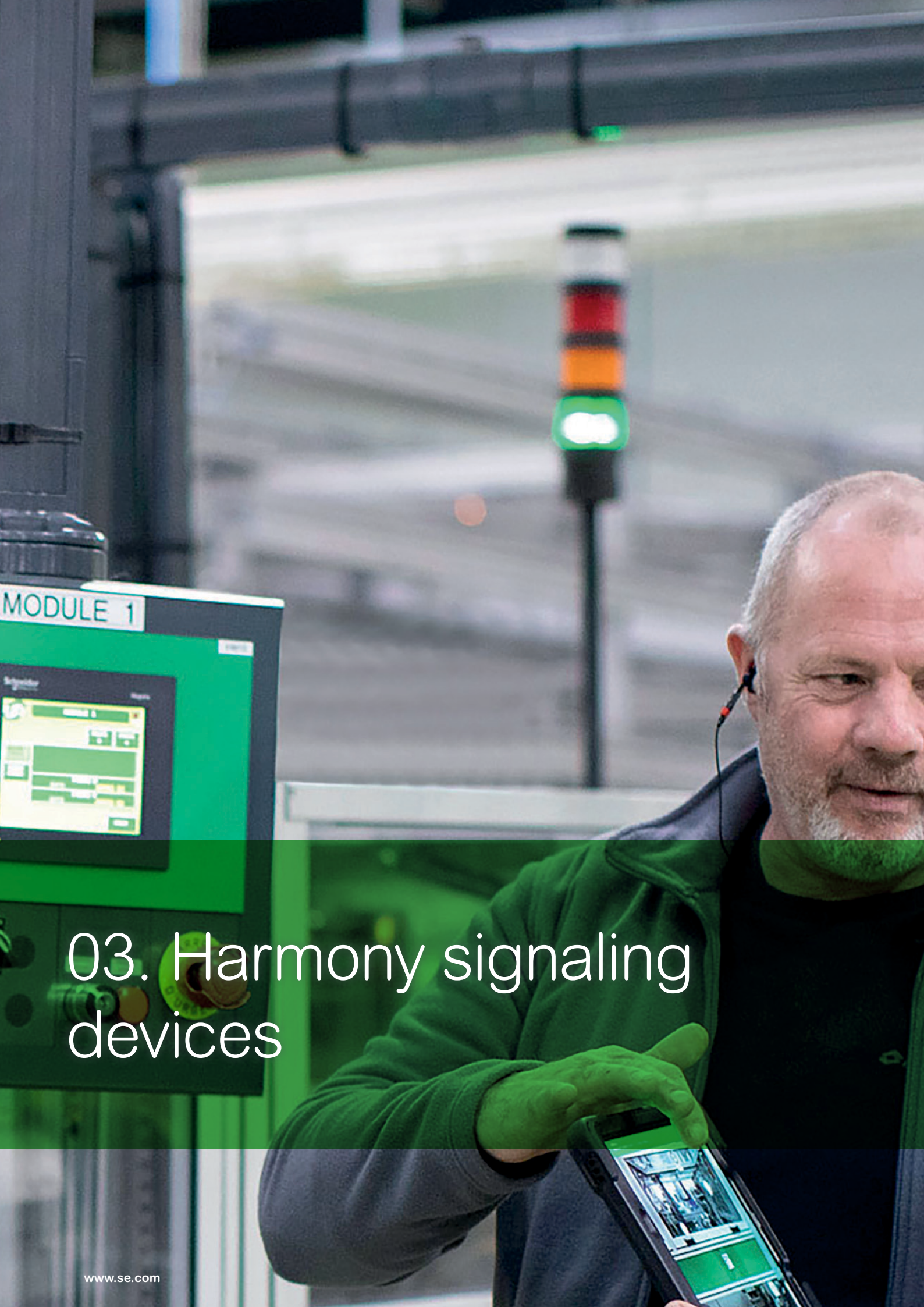
Type of display module		SIO HMI panels		
				
Display	Touch screen size	7" W	10.1" W	7" W
	Resolution (pixels)	800 x 480 pixels, 16 million colors	1,024 x 600 pixels, 16 million colors	800 x 480 pixels, 16 million colors
	Type	TFT Color LCD, single-touch analog resistive		TFT Color LCD, single-touch analog resistive
Degree of protection		IP65 (front)		
Functions	Brightness control	16 levels (adjusted with touch panel or software)		
	Backlight service life	20,000 hours or more (continuous operation at 25 °C/*77 °F*) before backlight brightness decreases to 50%		
Memory	Device memory	256 MB	256 MB	256 MB
	User data memory	256 MB	256 MB	256 MB
	Backup memory	128 KB NVRAM		
Dimensions	External W × H × D mm/*in.*	205.5 x 150.5 x 45/*8.09 x 5.92 x 1.77*	270.5 x 200.5 x 47/*10.64 x 7.89 x 1.85*	205.5 x 150.5 x 45/*8.09 x 5.92 x 1.77*
	Cut-out W × H mm/*in.*	190 x 135/*7.48 x 5.31*	255 x 185/*10.04 x 7.28*	190 x 135/*7.48 x 5.31*
Weight	kg/lb	0.600/*1.323*	0.980/*2.161*	*0.610/1.344*
Supply voltage		19.2 V...28.8 V ⎓		
Environment		Ambient air temperature 0...50 °C/*32...122 °F*		
Communication	Asynchronous serial link	RS-232C (COM1), RS-485/RS-422 (COM2)		
	USB ports	*1x USB 2.0 Micro-B*		RS-232C (COM1), RS-485/ RS-422 (COM2)
	Buses and networks	No	No	1x Ethernet TCP/IP (10BASE-T/100BASE-TX)
RTC		Yes		
Conformity to standards and certifications		CE, China RoHS, and UL 61010-2-201		
Operating system		VxWorks		
Development software		Vijeo Designer Basic *(1)*		
Terminal reference		**HMIET6401**	**HMIET6501**	**HMIET6400**

(1) Requires Vijeo Designer Basic V1.2. For more information on Vijeo Designer, please refer to the DIA5ED2130614EN catalog.

Display of text messages, graphic objects, and synoptic views
Control and configuration of data

Type of display module		ETH HMI panels		
				
Display	Touch screen size	10.1" W	12.1" W	15.6" W
	Resolution (pixels)	1,024 x 600 pixels, 16 million colors	1,280 x 800 pixels, 16 million colors	1,366 x 768 pixels, 16 million colors
	Type	TFT Color LCD, single-touch analog resistive		
Degree of protection		IP65 (front)		IP65 (front), Type 4X (indoor use only)
Functions	Brightness control	16 levels (adjusted with touch panel or software)		
	Backlight service life	20,000 hours or more (continuous operation at 25 °C/*77 °F*) before backlight brightness decreases to 50%		
Memory	Device memory	256 MB		
	User data memory	256 MB		
	Backup memory	128 KB NVRAM		
Dimensions	External W × H × D mm/*in.*	270.5 x 200.5 x 47/*10.64 x 7.89 x 1.85*	310.5 x 232.5 x 50/*12.22 x 9.5 x 1.97*	412 x 268 x 50/*16.22 x 10.55 x 1.97*
	Cut-out W × H mm/*in.*	255 x 185/*10.04 x 7.28*	295 x 217/*11.61 x 8.54*	394 x 250/*15.51 x 9.84*
Weight	kg/lb	0.990/*2.183*	1.620/*3.571*	2.520/*5.556*
Supply voltage		19.2 V...28.8 V ⎓		
Environment		Ambient air temperature 0...50 °C/*32...122 °F*		
Communication	Asynchronous serial link	RS-232C (COM1), RS-485/RS-422 (COM2)		
	USB ports	1x USB 2.0 (Type A), 1x USB 2.0 Micro-B		
	Buses and networks	1x Ethernet TCP/IP (10BASE-T/100BASE-TX)		
RTC		Yes		
Conformity to standards and certifications		CE, China RoHS and UL 61010-2-201		
Operating system		VxWorks		
Development software		Vijeo Designer Basic *(1)*		
Terminal reference		**HMIET6500**	**HMIET6600**	**HMIET6700**

(1) Requires Vijeo Designer Basic V1.2. For more information on Vijeo Designer, please refer to the DIA5ED2130614EN catalog.



03. Harmony signaling devices



Harmony XVB7 Tower Lights:

Redefining Signaling Excellence

Harmony Modular Tower Lights, **launching in 2025**, feature a sleek, new design incorporating energy-efficient LEDs to maximize brightness while minimizing energy consumption.

With easy installation and a modular concept, Harmony Modular Tower Lights simplify your selection journey and enable operational efficiency.

Aesthetic

- Elevated **Modern Design**
- Available in both **dark grey** & **silver** body color

Visible

- 4X improvement on **brightness**
- Audible signal **up to 102dB**

Flexible

- **Modular** concept provides flexibility in selection
- **IO-Link** and **USB** connections to enable more operation capability

Efficient

- More **rationalized construction**, reduce 3X skus with same functional coverage
- Reduce wiring time up to 95% with **pushing terminal** and **M12** connection
- Power optimization via **energy efficiency LED**

Features

Harmony XVB7



- High brightness with low power consumption realized via energy efficient LED
- Elevated design with a modern twist to enhance machine aesthetic
- Modular design for adaptability, ease of maintenance and low inventory
- Wide base variety with the option to be connected via USB & IO-link base
- Adjustable and customizable sounder with maximum sound pressure of up to 102dB

Technical Benefits

Harmony XVB7



- Conformity with IEC, CUL and CCC standards, as well as CE marking
- Up to IP66 and type 4X protection ratings
- High shock and vibration resistance up to 6g
- Energy efficient LED with operating life up to 50,000 hours
- Save up to 75% wiring time with M12 connection and push-in terminal
- High brightness level with illuminance up to 3000cd/m2

Learn more about Harmony Modular Tower Lights

Configure your Harmony Modular Tower Lights

















Harmony XVB7 modular tower lights Ø 70 mm

1 Light modules with steady light signal (IP66)

Light source energy-efficient LED	LED, included 24 V AC/DC					
Color	Green	Red	Orange	Blue	White	Yellow
Reference	**XVB7C23**	**XVB7C24**	**XVB7C25**	**XVB7C26**	**XVB7C27**	**XVB7C28**

2 Light modules with blinking light signal (IP66)

Light source energy-efficient LED	LED, included 24 V AC/DC					
Color	Green	Red	Orange	Blue	White	Yellow
Reference	**XVB7C53**	**XVB7C54**	**XVB7C55**	**XVB7C56**	**XVB7C57**	**XVB7C58**

Light modules with flashing light signal (IP66)

Light source energy-efficient LED	LED, included 24 V AC/DC 2 Joule flash					
Color	Green	Red	Orange	Blue	White	Yellow
Reference	**XVB7C63**	**XVB7C64**	**XVB7C65**	**XVB7C66**	**XVB7C67**	**XVB7C68**

3 Rotating and multifunction modules (IP66)

Rotating modules with energy-efficient LED	LED, included 24 V AC/DC		
Color	Red	Orange	8 colors (Blue, Green, Orange, Red, White, Yellow, Turquoise, and Purple)
Reference	**XVB7CR4**	**XVB7CR5**	

Rotating and multifunction modules (IP66)

Multifunction module adjustable via dip switch: Clear lens - 8 colors, 4 light patterns - Steady, blinking, 2 x flash, 3 x flash	LED, included 24 V AC/DC							
Color	Blue	Green	Red	Orange	White	Yellow	Turquoise	Purple
Reference	**XVB7CM9**							

4 Beacon lenses with steady light signal (IP66)

Light source energy-efficient LED	LED, included 24 V AC/DC					
Color	Green	Red	Orange	Blue	White	Yellow
Reference	**XVB7L23**	**XVB7L24**	**XVB7L25**	**XVB7L26**	**XVB7L27**	**XVB7L28**

Beacon lenses with flashing light signal (IP66)

Light source energy-efficient LED	LED, included 24 V AC/DC 2 Joule flash					
Color	Green	Red	Orange	Blue	White	Yellow
Reference	**XVB7L63**	**XVB7L64**	**XVB7L65**	**XVB7L66**	**XVB7L67**	**XVB7L68**















Harmony XVB7 audible units and brackets

Audible units

Description	**Sounder** - 360° omnidirectional sound - IP66 - 78 to 102 dB (A) at 1 m - Voltage: 24 V AC/DC - Dip switch for tone and volume selection		
Sound pattern	2-tone buzzer (continuous or intermittent)		8-tone buzzer (continuous or intermittent)
Color	Dark gray 1	Silver 2	Dark gray
Reference	**XVB7C9S**	**XVB7C9SQ**	**XVB7C9T**
Description	**Self-adjusting sounder** - Sound pressure automatically adjusts based on ambient sound - IP65 - 80 to 100 dB (A) at 1 m - Voltage: 24 V AC/DC		
Sound pattern	1-tone buzzer (intermittent)		
Color	Dark gray		
Reference	**XVB7C9SS**		
Description	**Customizable sounder/voice alarm** - Type-C USB for programming - IP65 (upright position) - 16 maximum tones (8 MB memory) - 88 dB (A) at 1 m - Supports MP3/Wav files - Voltage: 24 V DC		
Sound pattern	Vocal		
Color	Dark gray 3		
Reference	**XVB7C9V**		

L brackets with integrated tube

Description	**Steel L brackets comprising a Ø 25 mm/***0.98 in.* **aluminum tube** - IP54 (on horizontal surface) - IP23 (on vertical surface) - Bottom cable entry	
Height of tube - mm/*in.*	100/*3.98*	250/*9.84*
Material	Aluminum (tube) Steel (bracket)	
Color	Silver 4	
Reference	**XVZ100T**	**XVZ250T**
Weight - kg/*lb*	0.332/ *0.732*	0.381/*0.840*

Brackets

Description	**Foldable brackets for mounting at various angles** - IP40 - Bottom cable entry - Screws included	
Material	Plastic	
Color	Dark gray 5	White 6
Reference	**XVZ06**	**XVZ06W**
Weight - kg/*lb*	0.123/*0.271*	0.123/*0.271*
Description	**Wall mounting bracket for use on vertical support** - Can not be combined with L brackets XVZ100T and XVZ250T - IP66 - Gasket and screws included	
Material	Plastic 7	
Color	Dark gray	
Reference	**XVZ09**	
Weight - kg/*lb*	0.050/*0.110*	



Harmony XVB7 mounting accessories

Other mounting accessories

Description	1/2" NPT adapter - IP66 - Bottom cable entry	Side cable entry adapter for base mounting (M16 x 1.5 cable gland) - IP65 - Gasket and screws included	Magnetic adapter for base mounting with side cable entry (M16 x 1.5 cable gland) - IP65 - Screws included
Material	Steel	Plastic	Plastic
Color	Silver 1	Dark gray 2	Dark gray 3
Reference	**XVZ00**	**XVZ07**	**XVZ08**
Weight - kg/*lb*	0.101/*0.222*	0.069/*0.152*	0.298/*0.657*

Mounting bases without tube

Description	Mounting bases for tube mounting - IP66 (metal) - IP65 (plastic) - Bottom cable entry - Gasket and screws included			
Material	Plastic 4			Metal 5
Color	Dark gray	Silver	White	Black
Reference	**XVZ01**	**XVZ01Q**	**XVZ01W**	**XVZ11**
Weight - kg/*lb*	0.042/*0.092*	0.042/*0.092*	0.042/*0.092*	0.117/*0.257*

Mounting bases with tube

Description	Plastic mounting bases comprising a Ø 25 mm/0.98 in. tube - IP66 - Bottom cable entry - Gasket and screws included			
Height - mm/*in.*	100/3.94			
Material	Plastic			
Color	Dark gray 6		Silver 7	
Reference	**XVZ02**		**XVZ02Q**	
Weight - kg/*lb*	0.081/*0.178*		0.081/*0.178*	

Tubes

Description	Aluminium tubes Ø 25 mm/*0.98 in.* - IP66 - Bottom cable entry			
Height - mm/*in.*	100/3.94	250/9.84	400/15.75	800/31.5
Material	Aluminum			
Color	Silver			
Reference	**XVZ100** 9	**XVZ250** 8	**XVZ400**	**XVZ800**
Weight - kg/*lb*	0.040/*0.088*	0.098/*0.216*	0.156/*0.343*	0.311/*0.685*

Harmony XVB7 signaling solutions and Harmony XVR rotating beacons







Harmony XVB7 mounting accessories

Base modules for direct mounting (IP66) or tube mounting (IP65)

Description	Standard base modules with adapter and cover				
Voltage Connection	24 V AC/DC Push-in terminals		24 V DC M12 connector (A-coded, 15 cm cable)	100 - 240 V AC 120 V DC Push-in terminals	
Color	Dark gray 1	Silver	Dark gray	Dark gray	Silver 2
Reference	**XVB7C21B**	**XVB7C21BQ**	**XVB7C61**	**XVB7C21M**	**XVB7C21MQ**
Weight - kg/*lb*	0.164/*0.361*	0.165/*0.363*	0.289/*0.637*	0.280/*0.617*	0.282/*0.621*
Description	Connected base modules with adapter, cover, and wiring pull-out protection				
Voltage Connection	5 V DC Modbus protocol USB 2.0 Type C connection (cable not included)		24 V DC M12 connector (A-coded, 15 cm cable)	24 V DC IO-Link protocol (V1.1) M12 connector (A-coded, 15 cm cable)	
Color	Dark gray			Dark gray 3	
Reference	**XVB7C51**			**XVB7C31**	
Weight - kg/*lb*	0.180/*0.397*			0.227/*0.500*	

Harmony XVR3 pre-cabled motorless rotating/flashing beacons



Beacon lights with buzzer, multi-functional beacon lights 4

LED unit type		Beacon			
Color		Green	Red	Orange	Blue
Voltage		12-24 VDC			
Reference		**XVR3B03S**	**XVR3B04S**	**XVR3B05S**	**XVR3B06S**
Voltage		100-230 VAC			
Reference		**XVR3M03S**	**XVR3M04S**	**XVR3M05S**	**XVR3M06S**

Beacon lights without buzzer

Color		Green	Red	Orange	Blue
LED unit type		Beacon			
Voltage	12-24 VDC	**XVR3B03**	**XVR3B04**	**XVR3B05**	**XVR3B06**
	48 VDC	**XVR3E03**	**XVR3E04**	**XVR3E05**	**XVR3E06**
	100-230 VAC	**XVR3M03**	**XVR3M04**	**XVR3M05**	**XVR3M06**



04. Altivar soft starters

Altivar Soft Starter ATS01 is for HVAC, pumps, compressors, and other basic motors


1


2

1 Altivar soft starter ATS01 for 0.37 to 11 kW motors and single or 3-phase supply voltage 110...480 V 50/60 Hz *(1)*											
Power for single-phase motor *(2)*	Under 230 V (kW)	0.37		0.75		1.1	1.5	2.2			
Power for 3-phase motor *(2)*	Under 110 V (HP)	–	–	0.5	–	1	1.5	2	3		
	Under 230 V (kW)	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	
	Under 230 V (HP)	0.5	–	1	1.5	2	3	5	7.5		
	Under 400 V (KW)	1.1	–	2.2	3	4	5.5	7.5	9	11	
	Under 460 V (HP)	0.5	1.5	2	*3*	5	7.5	10	15		
Nominal current IcL (A) *(3)*		3		6		9	12	25			
Reference		**ATS01N103FT**		**ATS01N106FT**		**ATS01N109FT**	**ATS01N112FT**	**ATS01N125FT**			

2 Three-phase supply voltage: 200…240 V 50/60 Hz- Replace the ●● with LU						
Motor Power in KW	0.75/1.1	1.5	2.2/3	4/5.5	7.5	**ATS01●●●●LU**
Motor Power in HP	1/1.5	2	3/-	5/7.5	10	
Three-phase supply voltage: 380…415 V 50/60 Hz- Replace the ●● with QN						
Motor Power in KW	1.5/2.2/3	4	5.5	7.5/11	15	**ATS01●●●●QN**
Three-phase supply voltage: 440…480 V 50/60 Hz- Replace the ●● with RT						
Motor Power in HP	2/3	5	7.5	10/15	20	**ATS01●●●●RT**
IcL starter rating (A) *(3)*	6	9	12	22	32	
References	**ATS01N206●●**	**ATS01N209●●**	**ATS01N212●●**	**ATS01N222●●**	**ATS01N232●●**	

(1) Number of possible start-stops/hour: 100 for starting time of 1 s maximum, 20 for starting time of 5 s maximum.
(2) Standard motor power ratings, HP power ratings indicated according to standard UL508.
(3) IcL corresponds to the starter rating.

4

Altivar Soft Starter ATS130 is for HVAC, pumps, compressors, and other basic motors



Altivar Soft Starter ATS130 3-phase supply voltage 200...480 V 50/60 Hz *(8)*, and 24V DC control power supply *(4)*							
Motor power *(5)*	208V (HP)	10	10	20	20	25	30
	230V (kW)	11	11	18.5	22	22	30
	230V (HP)	10	15	20	25	30	40
	400V (kW)	18.5	22	30	37	45	55
	460V (HP)	25	30	40	50	60	75
Rated operational current IcL (A)		38	45	65	73	80	105
Reference		**ATS130N2D38LT**	**ATS130N2D38LT**	**ATS130N2D65LT**	**ATS130N2D73LT**	**ATS130N2D80LT**	**ATS130N2C11LT**



Build your motor starter with ATS130							
	Thermal-Magnetic circuit breaker	**GV3P●●1**	**GV3P●●1**	**GV3P●●1**	**GV3P●●1**	**GV4P●●**	**GV4P●●**
	Fixing kit *(7)*	**VW3G921304**				**VW3G921305**	
	Altivar Soft Starter ATS130 *(6)}*	**ATS130N2D38LT**	**ATS130N2D45LT**	**ATS130N2D65LT**	**ATS130N2D73LT**	**ATS130N2D80LT**	**ATS130N2C11LT**
	Optional cooling fan *(8)*	**VW3G941305**					

(4) Number of possible start-stops/hour: 50 for starting time of 1s maximum, 10 for starting time 5s maximum, 5 for starting of 10 s maximum.
(5) IE3 motor power ratings, HP power ratings indicated according to standard UL508.
(6) Reduction of number of start- stops / hour for this mounting conditions . For more details, please refer to the product datasheet on our website www.se.com.
(7) Fixing kits for GV3 or GV4 used to maintain in position the circuit breaker and to connect it to ATS130.
(8) The number of starts per hour can be increased by adding a fan. For more details, please refer to the product datasheet on our website www.se.com.

Altivar Soft Starter ATS22 is for building and industrial segments



1



2

1 Altivar soft starter ATS22 units for 3-phase power supply voltage 230...440 V and 220 V 50-60 Hz control power supply Connection in the motor power supply line or in the motor delta connection *(1)*

Motor power in kW (motor power supply line)	230 V	4	7.5	11	15	18.5	22	30	37
	400 V	7.5	15	22	30	37	45	55	75
	440 V	7.5	15	22	30	37	45	55	75
Nominal current IcL (A) *(2)*		17	32	47	62	75	88	110	140
Number of starts/hour	Without fan	6	6	6	6	6	6	4	4
	With fan *(3)*	10	10	10	10	10	10	10	10
Reference		**ATS22D17Q**	**ATS22D32Q**	**ATS22D47Q**	**ATS22D62Q**	**ATS22D75Q**	**ATS22D88Q**	**ATS22C11Q**	**ATS22C14Q**

Motor power in kW (motor power supply line)	230 V	45	55	75	90	110	132	160
	400 V	90	110	132	160	220	250	315
	440 V	90	110	132	160	220	250	355
Nominal current IcL (A) *(2)*		170	210	250	320	410	480	590
Number of starts/hour	Without fan	4	–	–	–	–	–	–
	With fan *(3)*	10	4	4	4	4	4	4
Reference		**ATS22C17Q**	**ATS22C21Q**	**ATS22C25Q**	**ATS22C32Q**	**ATS22C41Q**	**ATS22C48Q**	**ATS22C59Q**

2 Altivar soft starter ATS22 units for 3-phase power supply voltage 230...500 V and 220 V 50-60 Hz control power supply Connection in the motor power supply line

Motor power in kW	230 V	4	7.5	11	15	18.5	22	30	37
	400 V	7.5	15	22	30	37	45	55	75
	440 V	7.5	15	22	30	37	45	55	75
	500 V	9	18.5	30	37	45	55	75	90
Nominal current IcL (A) *(2)*		17	32	47	62	75	88	110	140
Number of starts/hour	Without fan	–	–	–	–	–	–	–	
	With fan *(3)*	4	4	4	4	4	4	4	
References		**ATS22D17S6**	**ATS22D32S6**	**ATS22D47S6**	**ATS22D62S6**	**ATS22D75S6**	**ATS22D88S6**	**ATS22C11S6**	**ATS22C14S6**

Motor power in kW	230 V	45	55	75	90	110	132	160
	400 V	90	110	132	160	220	250	315
	440 V	90	110	132	160	220	250	355
	500 V	110	132	160	220	250	315	400
Nominal current IcL (A) *(2)*		170	210	250	320	410	480	590
Number of starts/hour	Without fan	4	–	–	–	–	–	–
	With fan *(3)*	10	4	4	4	4	4	4
Reference		**ATS22C17S6**	**ATS22C21S6**	**ATS22C25S6**	**ATS22C32S6**	**ATS22C41S6**	**ATS22C48S6**	**ATS22C59S6**

***Note**: All values given for Altivar soft starter ATS22 are defined for 3.5 x In and 20 s starting time, with motors with thermal protection class 10. These values are for an ambient temperature of 40 °C.*

(1) When connected in the delta configuration, starters allow the use of motors of a larger rating relative to that of the starter. In this configuration, the nominal motor current should not exceed 1.5 IcL.

(2) IcL corresponds to the starter rating.

(3) All soft starters from motor power 55 kW to 160 kW (ATS22C21.. to ATS22C59..) are equipped with a fan as standard.
For soft starters under 55 kW (ATS22D17.. to ATS22C17..), the number of starts per hour can be increased by adding a fan. For more details, please refer to the product datasheets on our website www.se.com.

Notes



05. Altivar variable speed drives

Variable speed drives
Altivar HVAC ATH200
An offer dedicated to HVAC machines



Altivar HVAC ATH200 drives

A competitive solution delivering high-performance, energy efficiency, and durability

Altivar HVAC ATH200 is a range of IP20 variable speed drives designed to be mounted in the control panel of compact HVAC machines. Altivar HVAC ATH200 drives control three-phase synchronous and asynchronous motors in open loop control on pumps, fans, and compressors to increase energy efficiency, as energy is the first component of the total cost of ownership (TCO) of HVAC machines. Designed with reliability in mind, Altivar HVAC ATH200 drives offer a high level of resistance to operating environment conditions, which helps to avoid limiting events and reduce maintenance - the second largest component of TCO.





Compact HVAC machines

Altivar HVAC ATH200 drives are specifically designed to meet the requirements of compact HVAC machines and incorporate functions suitable for:

- Air-cooled chillers
- Heat pumps
- Rooftop units
- Air handling units
- Boilers

An offer dedicated to HVAC machines

Designed for optimization of the control panel

The Altivar HVAC ATH200 range offers compact solutions:

- The drives have a compact format with a reduced footprint, making them suitable for HVAC control panels with a depth of less than 200 mm/*8 in*. for drives rated up to 15 kW/*20 HP*.
- The drives can be mounted side by side to further increase the compactness of the solutions without compromising the thermal design.
- Embedded functions such as Safe Torque Off and the programmable logic functions remove the need for external devices, therefore reducing costs.
- Integrated EMC filters: Altivar HVAC ATH200 drives have a built-in EMC filter in ATH230U●●M2 and ATH230●●●N4 drives to meet EMC standard requirements.

Drive	Maximum length of shielded cable *(1)(2)* according to	
	IEC/EN 61800-3 Category C2	IEC/EN 61800-3 Category C3
	m/*ft*	m/*ft*
ATH230●●●M2	10/*33*	10/*33*
ATH230U04N4...U15N4	10/*33*	10/*33*
ATH230U22N4...U40N4	10/*33*	20/*66*
ATH230U55N4...U75N4	2/*6.6*	20/*66*
ATH230D11N4...D15N4	–	25/*82*
ATH230D18N4...D22N4	5/*16.4*	25/*82*

The EMC filter enables compliance with standard IEC/EN 61800-3, category C2 or C3 in environment 1 or 2 and with the European Electromagnetic Compatibility Directive (EMC).



ATH200 dialog and configuration tools

Standards and certifications *(1)*

Designed to meet international safety and EMC standards for reliable and compliant operation.

Certified globally with approvals such as CE, UL, CSA, ATEX, EAC, KC, and SIL.

RoHS compliant and suitable for HVAC and refrigeration applications using A2L refrigerants.

(1) A complete list of certifications and characteristics is available on our website.

Variable speed drives
Altivar HVAC ATH200
IP20 drives for cabinet mounting
Single-phase and three-phase 200...240 V



ATH230U04M2...U07M2



ATH230U11M2...U22M2
ATH230U06N4...U15N4



ATH230U55M3

IP20 drives for cabinet mounting

Motor		Line supply				Altivar HVAC ATH200				
Power indicated on rating plate *(1)*		Max. line current *(2) (3)*		Apparent power	Max. prospective line Isc *(4)*	Max. continuous output current (In) *(1)*	Max. transient current for 60s	Power dissipated at maximum output current (In) *(1)*	Reference *(1)*	Weight
		at U1	at U2	at U2						
kW	*HP*	A	A	kVA	kA	A	A	W		kg/ *lb*
Single-phase supply voltage: 200…240 V 50/60 Hz, with integrated EMC filter *(5)*										
0.37	*0.5*	5.9	4.9	1.4	1	3.3	3.6	30	**ATH230U04M2**	1/ *2.2*
0.55	*0.75*	7.8	6.6	1.9	1	3.7	4.1	33	**ATH230U06M2**	1.1/ *2.4*
0.75	*1*	10	8.4	2.4	1	4.8	5.3	45	**ATH230U07M2**	
1.1	*1.5*	13.7	11.5	3.3	1	6.9	7.6	61	**ATH230U11M2**	1.6/ *3.5*
1.5	*2*	17.8	14.9	4.3	1	8	8.8	76	**ATH230U15M2**	
2.2	*3*	24	20.2	5.8	1	11	12.1	99	**ATH230U22M2**	
Three-phase supply voltage: 200…240 V 50/60 Hz, without integrated EMC filter										
0.37	*0.5*	3.6	3	1.5	5	3.3	3.6	27	**ATH230U04M3**	0.9/ *2*
0.55	*0.75*	4.9	4.2	2	5	3.7	4.1	31	**ATH230U06M3**	1/ *2.2*
0.75	*1*	6.3	5.3	2.6	5	4.8	5.3	42	**ATH230U07M3**	
1.1	*1.5*	8.6	7.2	3.6	5	6.9	7.6	58	**ATH230U11M3**	1.4/ *3.1*
1.5	*2*	11.1	9.3	4.6	5	8	8.8	72	**ATH230U15M3**	
2.2	*3*	14.9	12.5	6.2	5	11	12.1	91	**ATH230U22M3**	
3	*3*	18.7	15.7	7.8	5	13.7	15.1	105	**ATH230U30M3**	2.2/ *4.8*
4	*5*	23.8	19.9	9.9	5	17.5	19.3	140	**ATH230U40M3**	
5.5	*7.5*	35.4	29.8	14.7	22	27.5	30.3	242	**ATH230U55M3**	3.5/ *7.7*
7.5	*10*	45.3	38.2	18.8	22	33	36.3	293	**ATH230U75M3**	3.6/ *7.9*
11	*15*	60.9	51.4	25.3	22	54	59.4	468	**ATH230D11M3**	6.8/ *15*
15	*20*	79.7	67.1	33.1	22	66	72.6	551	**ATH230D15M3**	6.9/ *15.2*

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves in the Altivar HVAC ATH230 Installation Manual).
(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line current.
(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)…240 V (U2), 380 (U1)…500 V (U2), 525 (U1)...600 V (U2).
(4) If line Isc is greater than the values in the table, add line chokes.
(5) Drives supplied with category C2 integrated EMC filter. This filter can be disconnected - EMC conformity kit to be ordered separately.

Variable speed drives
Altivar HVAC ATH200
IP20 drives for cabinet mounting
Three-phase 380...500 V and 525...600 V



ATH230U15S6



ATH230U22N4...
ATH230U40N4



ATH230U55N4



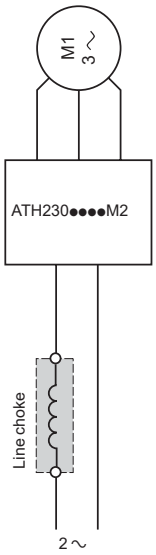
ATH230D15S6

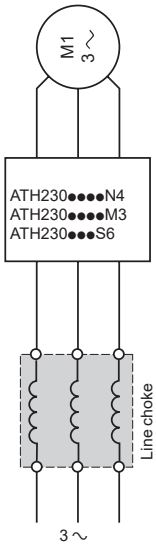
IP20 drives for cabinet mounting

Motor		Line supply				Altivar HVAC ATH200				
Power indicated on rating plate *(1)*		Max. line current *(2) (3)*		Apparent power	Max. prospective line Isc *(4)*	Max. continuous output current (In) *(1)*	Max. transient current for 60s	Power dissipated at maximum output current (In) *(1)*	Reference *(1)*	Weight
		at U1	at U2	at U2						
kW	*HP*	A	A	kVA	kA	A	A	W		kg/ *lb*
Three-phase supply voltage: 380…500 V 50/60 Hz, with integrated EMC filter *(5)*										
0.55	*0.75*	2.8	2.2	2.4	5	1.9	2.1	27	**ATH230U06N4**	1.2/ *2.6*
0.75	*1*	3.6	2.8	3.1	5	2.3	3.5	32	**ATH230U07N4**	
1.1	*1.5*	5	3.8	4.3	5	3	3.3	40	**ATH230U11N4**	1.3/ *2.9*
1.5	*2*	6.4	4.9	5.5	5	4.1	4.5	56	**ATH230U15N4**	
2.2	*3*	8.7	6.6	7.5	5	5.5	6.1	74	**ATH230U22N4**	2.1/ *4.6*
3	*3*	11.1	8.4	9.6	5	7.1	7.8	93	**ATH230U30N4**	
4	*5*	13.7	10.6	11.9	5	9.5	10.5	111	**ATH230U40N4**	2.2/ *4.8*
5.5	*7.5*	20.7	14.5	17.9	22	14.3	15.7	195	**ATH230U55N4**	
7.5	*10*	26.5	18.7	22.9	22	17	18.7	229	**ATH230U75N4**	
11	*15*	36.6	25.6	31.7	22	27.7	30.5	370	**ATH230D11N4**	6.8/ *15*
15	*20*	47.3	33.3	41	22	33	36.3	452	**ATH230D15N4**	6.9/ *15.2*
18.5	*25*	55.3	42.4	47.9	22	40	44	449	**ATH230D18N4**	9.5/ *20.9*
22	*30*	64.6	49.4	55.9	22	46	50.6	540	**ATH230D22N4**	
Three-phase supply voltage: 525…600 V 50/60 Hz, without integrated EMC filter *(6)*										
1.5	*2*	2.6	2.4	2.7	5	2.7	3	54	**ATH230U15S6**	1.3/ *4.4*
2.2	*3*	3.7	3.2	3.8	5	3.9	4.3	77	**ATH230U22S6**	2/ *4.4*
4	*5*	6.5	5.8	6.8	5	6.1	6.7	96	**ATH230U40S6**	2.5/ *5.5*
5.5	*7.5*	8.4	7.5	8.7	22	9	9.9	148	**ATH230U55S6**	3.5/ *7.7*
7.5	*10*	11.6	10.5	12.1	22	11	12.1	175	**ATH230U75S6**	
11	*15*	15.8	14.1	16.4	22	17	18.7	267	**ATH230D11S6**	6.5/ *14.3*
15	*20*	22.1	20.1	23	22	22	24.2	317	**ATH230D15S6**	

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves in the Altivar HVAC ATH230 Installation Manual).
(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line current.
(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)…240 V (U2), 380 (U1)…500 V (U2), 525 (U1)...600 V (U2).
(4) If line Isc is greater than the values in the table, add line chokes.
(5) Drives supplied with category C2 integrated EMC filter, ATH230D11N4...D15N4 drives supplied with category C3 integrated EMC filter. This filter can be disconnected. EMC conformity kit to be ordered separately.
(6) A line choke is mandatory with ATH230●●●S6 drives (to be ordered separately).

Variable speed drives
Altivar HVAC ATH200
Option: Line chokes





References

Drive reference	Line current, without choke		Line current, with choke		Choke	
	U min. *(1)*	U max. *(1)*	U min. *(1)*	U max. *(1)*	Reference	Weight
	A	A	A	A		kg/*lb*
Single-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U06M2	7.9	6.7	5.8	5.0	**VZ1L007UM50**	0.88/*1.9*
ATH230U07M2	10.1	8.5	7.5	6.4		
ATH230U11M2	13.6	11.5	11.0	9.4	**VZ1L018UM20**	1.99/*4.4*
ATH230U15M2	17.6	14.8	14.3	12.2		
ATH230U22M2	23.9	20.1	19.9	16.8		
Three-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U04M3	3.6	3.0	1.9	1.6	**VW3A4551**	1.5/*3.3*
ATH230U06M3	4.9	4.2	2.7	2.3		
ATH230U07M3	6.3	5.3	3.6	3.0		
ATH230U11M3	8.6	7.2	5.0	4.2	**VW3A4552**	3/*6.6*
ATH230U15M3	11.1	9.3	6.7	5.6		
ATH230U22M3	14.9	12.5	9.4	7.9	**VW3A4553**	3.5/*7.7*
ATH230U30M3	18.7	15.7	12.5	10.4		
ATH230U40M3	23.8	19.9	16.3	13.8	**VW3A4554**	6/*13.2*
ATH230U55M3	35.4	29.8	21.8	18.2		
ATH230U75M3	45.3	38.2	29.1	24.2		
ATH230D11M3	60.9	51.4	41.1	34.4	**VW3A4555**	11/*24.3*
ATH230D15M3	79.7	67.1	54.7	45.6		
Three-phase supply voltage: 380…500 V 50/60 Hz						
ATH230U06N4	2.8	2.2	1.5	1.3	**VW3A4551**	1.5/*3.3*
ATH230U07N4	3.6	2.7	1.9	1.6		
ATH230U11N4	5.0	3.8	2.7	2.1		
ATH230U15N4	6.5	4.9	3.5	2.7		
ATH230U22N4	8.7	6.6	5.1	4.0	**VW3A4552**	3/*6.6*
ATH230U30N4	11.1	8.4	6.6	5.2		
ATH230U40N4	13.7	10.5	8.5	6.6		
ATH230U55N4	20.7	14.5	11.5	9.3	**VW3A4553**	3.5/*7.7*
ATH230U75N4	26.5	18.7	15.3	12.0		
ATH230D11N4	36.6	25.6	21.8	17.8	**VW3A4554**	6/*13.2*
ATH230D15N4	47.3	33.3	28.8	22.8		
ATH230D18N4	55.3	42.4	39.9	32.4	**VW3A4556**	16/*35.3*
ATH230D22N4	64.6	49.4	45.8	37.8		
Three-phase supply voltage: 525…600 V 50/60 Hz *(2)*						
ATH230U15S6	–	–	2.6	2.4	**VW3A4551**	1.5/*3.3*
ATH230U22S6	–	–	3.7	3.2		
ATH230U40S6	–	–	6.5	5.8	**VW3A4552**	3/*6.6*
ATH230U55S6	–	–	8.4	7.5		3.5/*7.7*
ATH230D11S6	–	–	15.8	14.1	**VW3A4553**	6/*13.2*
ATH230U75S6	–	–	11.6	10.5		3.5/*7.7*
ATH230D15S6	–	–	22.1	20.1	**VW3A4554**	6/*13.2*

(1) Nominal supply voltage
(2) ATH230●●●S6 drives must not be used without a line choke.

Variable speed drives
Altivar HVAC ATH200
Option: Additional EMC filters



VW3A4424

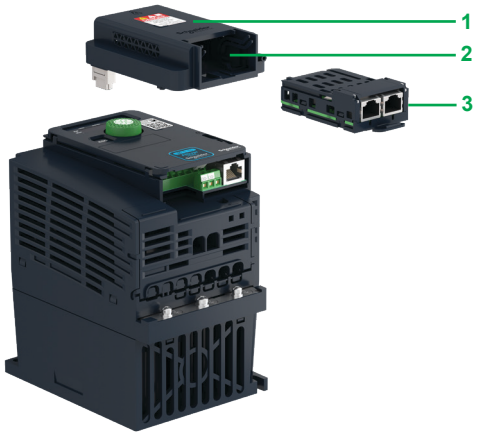
References

Additional EMC input filters

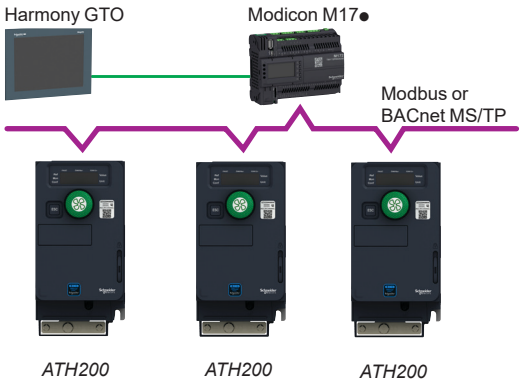
Corresponding drive	Additional EMC input filter						
Reference	Maximum length of shielded cable (1) (2)			In (3)	Losses (4)	Reference	Weight
	IEC 61800-3 (5)						
	Category C3	Category C2	Category C1				
	m/*ft*	m/*ft*	m/*ft*	A	W		kg/*lb*
Single-phase supply voltage: 200…240 V 50/60 Hz							
ATH230U04M2…U07M2	100/*328*	50/*164*	20/*66*	9	3.7	**VW3A31401**	0.6/*1.3*
ATH230U11M2…U15M2	100/*328*	50/*164*	20/*66*	16	6.9	**VW3A31403**	0.775/*1.71*
ATH230U22M2	100/*328*	50/*164*	20/*66*	22	7.5	**VW3A31405**	1.13/*2.49*
Three-phase supply voltage: 200…240 V 50/60 Hz							
ATH230U04M3...U07M3	5/*16.4*	5/*16.4*	1/*3.3*	7	2.6	**VW3A31402**	0.65/*1.43*
ATH230U11M3...U22M3	5/*16.4*	5/*16.4*	1/*3.3*	15	9.9	**VW3A31404**	1/*2.2*
ATH230U30M3...U40M3	5/*16.4*	5/*16.4*	1/*3.3*	25	15.8	**VW3A31406**	1.65/*3.64*
ATH230U55M3...U75M3	5/*16.4*	5/*16.4*	1/*3.3*	47	19.3	**VW3A31407**	3.15/*6.94*
ATH230D11M3...D15M3	5/*16.4*	5/*16.4*	1/*3.3*	83	35.2	**VW3A31408**	5.3/*11.68*
Three-phase supply voltage: 380…500 V 50/60 Hz							
ATH230U06N4…U15N4	150/*492*	50/*164*	20/*66*	15	9.9	**VW3A31404**	1/*2.2*
ATH230U22N4C…U40N4	100/*328*	50/*164*	20/*66*	25	15.8	**VW3A31406**	1.65/*3.64*
ATH230U55N4…U75N4	150/*492*	100/*328*	20/*66*	47	19.3	**VW3A4424**	3.15/*6.94*
ATH230D11N4…D15N4	150/*492*	100/*328*	5/*16.4*	49	27.4	**VW3A4425**	4.75/*10.47*
ATH230D18N4…D22N4	100/*328*	50/*164*	20/*66*	70	40	**VW3A31410**	7/*15.43*

(1) The filter selection tables give the maximum lengths for shielded cables connecting motors to drives. These maximum lengths are given as examples only, as they vary depending on the stray capacitance of the motors and the cables used. If motors are connected in parallel, it is the total length of all cables that should be taken into account.
(2) These values are given for a nominal switching frequency of 4 kHz.
(3) In: nominal filter current.
(4) Via heat dissipation, at the nominal filter current (In).
(5) Standard IEC 61800-3:
Environment 1 (Residential): C1 and C2
EN 55011 Group 1: Class B and Class A
Environment 2 (Industrial): C3 and C4
EN 55011 Group 2: Class A and N/A

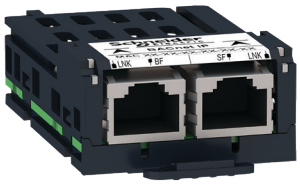
Variable speed drives
Altivar HVAC ATH200
Option: Mechanical adapter for option module Communication buses



*Example of installing a communication module **3** (view of underside) on a drive*



Example of configuration on Modbus or BACnet MS/TP bus



BACnet/IP communication module VW3A3726

Presentation

Altivar HVAC ATH200 drives are designed for use with option modules according to machine and application requirements; only one option module can be used with an Altivar HVAC ATH200 drive at a time.
The option modules are compatible with all Altivar HVAC ATH200 drives

The VW3A3600 option module adapter should be added to Altivar HVAC ATH200 drives in order to connect communication modules.

1 Communication adapter card
2 Slot for the communication module

References

Description	Reference
Mechanical adapter for communication module **1**	**VW3A3600**

Presentation

Altivar HVAC ATH200 drives are designed to meet the configuration requirements found in the main HVAC machines.
Modbus and BACnet MS/TP communication protocols are integrated as standard and can be accessed directly via the RJ45 communication port underneath the front cover of the drive.
Altivar HVAC ATH200 drives can also be connected to BACnet/IP by using the communication modules available as an option.
The communication module is supplied in “cassette” format for ease of mounting/ removal.

(1) Altivar HVAC ATH200 drives can only take one communication module.

BACnet/IP network *(2)(3)*

Description	Reference	Weight kg/*lb*
BACnet/IP communication module Port: Two RJ45 connectors ■ BTL certified ■ Automatic IP address via DHCP ■ Foreign device capability	**VW3A3726**	0.3/ *0.66*

(2) Altivar HVAC ATH200 drives can only take one communication module.
(3) The VW3A3600 option module adapter is required in order to use any communication option module.

Variable speed drives
Altivar HVAC ATH200
Motor starters (circuit breaker + drive)
Supply voltage 200...240 V



GV3L80



ATH230D15M3

Motor starters: Circuit breaker + Drive

Standard power ratings of three-phase 4-pole 50/60 Hz motors *(1)*		Variable speed drive	Circuit breaker *(2)*
		Reference	Reference
kW	*HP*		
Single-phase supply voltage: 200…240 V 50/60 Hz			
0.37	*0.5*	**ATH230U04M2**	**GV2L10** *(3)*
0.55	*0.75*	**ATH230U06M2**	**GV2L14** *(3)*
0.75	*1*	**ATH230U07M2**	**GV2L16** *(3)*
1.1	*1.5*	**ATH230U11M2**	**GV2L16** *(3)*
1.5	*2*	**ATH230U15M2**	**GV2L20** *(3)*
2.2	*3*	**ATH230U22M2**	**GV2L22** *(3)*
Three-phase supply voltage: 200…240 V 50/60 Hz			
0.37	*0.5*	**ATH230U04M3**	**GV2L08** *(3)*
0.55	*0.75*	**ATH230U06M3**	**GV2L10** *(3)*
0.75	*1*	**ATH230U07M3**	**GV2L14** *(3)*
1.1	*1.5*	**ATH230U11M3**	**GV2L14** *(3)*
1.5	*2*	**ATH230U15M3**	**GV2L16** *(3)*
2.2	*3*	**ATH230U22M3**	**GV2L20** *(3)*
3	*4*	**ATH230U30M3**	**GV2L22** *(3)*
4	*5*	**ATH230U40M3**	**GV2L22** *(3)*
5.5	*7.5*	**ATH230U55M3**	**GV3L40** *(3)*
7.5	*10*	**ATH230U75M3**	**GV3L50** *(3)*
11	*15*	**ATH230D11M3**	**GV3L65** *(3)*
15	*20*	**ATH230D15M3**	**GV3L80**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

Variable speed drives
Altivar HVAC ATH200
Motor starters (circuit breaker + drive)
Supply voltage 380...600 V



GV3P13



ATH230U15S6

Motor starters: Circuit breaker + Drive

Standard power ratings of three-phase 4-pole 50/60 Hz motors *(1)*		Variable speed drive	Circuit breaker *(2)*
		Reference	Reference
kW	***HP***		
Three-phase supply voltage: 380…500 V 50/60 Hz			
0.55	*0.75*	**ATH230U06N4**	**GV2L08** *(3) (4)*
0.75	*1*	**ATH230U07N4**	**GV2L08** *(3) (4)*
1.1	*1.5*	**ATH230U11N4**	**GV2L10** *(3) (4)*
1.5	*2*	**ATH230U15N4**	**GV2L14** *(3) (4)*
2.2	*3*	**ATH230U22N4**	**GV2L14** *(3) (4)*
3	*4*	**ATH230U30N4**	**GV2L16** *(3) (4)*
4	*5*	**ATH230U40N4**	**GV2L16** *(3) (4)*
5.5	*7.5*	**ATH230U55N4**	**GV2L22** *(3)*
7.5	*10*	**ATH230U75N4**	**GV2L32** *(3)*
11	*15*	**ATH230D11N4**	**GV3L40** *(3)*
15	*20*	**ATH230D15N4**	**GV3L50** *(3)*
18.5	*25*	**ATH230D18N4**	**GV3L65** *(3)*
22	*30*	**ATH230D22N4**	**GV3L65** *(3)*
Three-phase supply voltage: 525…600 V 50/60 Hz			
1.5	*2*	**ATH230U15S6**	**GV3P13**
2.2	*3*	**ATH230U22S6**	**GV3P13**
4	*5*	**ATH230U40S6**	**GV3P13**
5.5	*7.5*	**ATH230U55S6**	**GV3P13**
7.5	*10*	**ATH230U75S6**	**GV3P18**
11	*15*	**ATH230D11S6**	**GV3P25**
15	*20*	**ATH230D15S6**	**GV3P32**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.
(4) A GV2P TeSys thermal magnetic circuit breaker with the same rating can also be used with **ATH230U06N4…U40N4** *drives. The thermal release should then be set to maximum to inhibit this function.*

Variable speed drives

Altivar HVAC ATH200

Motor starters (circuit breaker + contactor + drive)
Supply voltage 200...240 V







GV2L14
+
LC1D09
+
ATH230U07M3

Motor starters: Circuit breaker + Contactor + Drive

Standard power rating of 50/60 Hz 4-pole motors *(1)*		Variable speed drive	Circuit breaker *(2)*			Contactor *(3)*
		Reference	Reference	Rating	LRM	Reference *(4)*
kW	*HP*			A	A	
Single-phase supply voltage: 200…240 V 50/60 Hz						
0.37	*0.5*	**ATH230U04M2**	**GV2L10** *(5)*	6.3	78	**LC1D09●●**
0.55	*0.75*	**ATH230U06M2**	**GV2L14** *(5)*	10	138	**LC1D09●●**
0.75	*1*	**ATH230U07M2**	**GV2L16** *(5)*	14	170	**LC1D09●●**
1.1	*1.5*	**ATH230U11M2**	**GV2L16** *(5)*	14	170	**LC1D09●●**
1.5	*2*	**ATH230U15M2**	**GV2L20** *(5)*	18	223	**LC1D09●●**
2.2	*3*	**ATH230U22M2**	**GV2L22** *(5)*	25	327	**LC1D09●●**
Three-phase supply voltage: 200…240 V 50/60 Hz						
0.37	*0.5*	**ATH230U04M3**	**GV2L08** *(5)*	4	51	**LC1D09●●**
0.55	*0.75*	**ATH230U06M3**	**GV2L10** *(5)*	6.3	78	**LC1D09●●**
0.75	*1*	**ATH230U07M3**	**GV2L14** *(5)*	10	138	**LC1D09●●**
1.1	*1.5*	**ATH230U11M3**	**GV2L14** *(5)*	10	138	**LC1D09●●**
1.5	*2*	**ATH230U15M3**	**GV2L16** *(5)*	14	170	**LC1D09●●**
2.2	*3*	**ATH230U22M3**	**GV2L20** *(5)*	18	223	**LC1D09●●**
3	*4*	**ATH230U30M3**	**GV2L22** *(5)*	25	327	**LC1D09●●**
4	*5*	**ATH230U40M3**	**GV2L22** *(5)*	25	327	**LC1D09●●**
5.5	*7.5*	**ATH230U55M3**	**GV3L40** *(5)*	40	560	**LC1D25●●**
7.5	*10*	**ATH230U75M3**	**GV3L50** *(5)*	50	700	**LC1D32●●**
11	*15*	**ATH230D11M3**	**GV3L65** *(5)*	65	910	**LC1D50●●**
15	*20*	**ATH230D15M3**	**GV3L80**	80	1100	**LC1D65●●**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) Composition of TeSys contactors LC1D09/D18/D25/D32/D50/D65: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact.
(4) Replace ●● with the control circuit voltage reference given in the table below:

AC control circuit						
	Volts ∿	**24**	**48**	**115**	**230**	**230/240**
LC1D	50/60 Hz	B7	E7	FE7	P7	U7

For other voltages between 24 V and 660 V, or a DC control circuit, please refer to the TeSys catalog.

(5) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

Variable speed drives

Altivar HVAC ATH200

Motor starters (circuit breaker + contactor + drive)
Supply voltage 380...600 V







GV2L14
+
LC1D09
+
ATH230U15N4

Motor starters: Circuit breaker + Contactor + Drive

Standard power rating of 50/60 Hz 4-pole motors *(1)*		Variable speed drive	Circuit breaker *(2)*			Contactor *(3)*
		Reference	Reference	Rating	LRM	Reference *(4)*
kW	*HP*			A	A	
Three-phase supply voltage: 380…500 V 50/60 Hz						
0.55	*0.75*	**ATH230U06N4**	**GV2L08** *(5)*	4	51	**LC1D09●●**
0.75	*1*	**ATH230U07N4**	**GV2L08** *(5)*	4	51	**LC1D09●●**
1.1	*1.5*	**ATH230U11N4**	**GV2L10** *(5)*	6.3	78	**LC1D09●●**
1.5	*2*	**ATH230U15N4**	**GV2L14** *(5)*	10	138	**LC1D09●●**
2.2	*3*	**ATH230U22N4**	**GV2L14** *(5)*	10	138	**LC1D09●●**
3	*4*	**ATH230U30N4**	**GV2L16** *(5)*	14	170	**LC1D09●●**
4	*5*	**ATH230U40N4**	**GV2L16** *(5)*	14	170	**LC1D09●●**
5.5	*7.5*	**ATH230U55N4**	**GV2L22** *(5)*	25	327	**LC1D09●●**
7.5	*10*	**ATH230U75N4**	**GV2L32** *(5)*	32	416	**LC1D18●●**
11	*15*	**ATH230D11N4**	**GV3L40** *(5)*	40	560	**LC1D25●●**
15	*20*	**ATH230D15N4**	**GV3L50** *(5)*	50	700	**LC1D32●●**
18.5	*25*	**ATH230D18N4**	**GV3L65** *(5)*	65	910	**LC1D40A●●**
22	*30*	**ATH230D22N4**	**GV3L65** *(5)*	65	910	**LC1D50A●●**
Three-phase supply voltage: 525…600 V 50/60 Hz						
1.5	*2*	**ATH230U15S6**	**GV3P13**	13	182	**LC1D09●●**
2.2	*3*	**ATH230U22S6**	**GV3P13**	13	182	**LC1D09●●**
4	*5*	**ATH230U40S6**	**GV3P13**	13	182	**LC1D09●●**
5.5	*7.5*	**ATH230U55S6**	**GV3P13**	13	182	**LC1D09●●**
7.5	*10*	**ATH230U75S6**	**GV3P18**	18	252	**LC1D09●●**
11	*15*	**ATH230D11S6**	**GV3P25**	25	350	**LC1D18●●**
15	*20*	**ATH230D15S6**	**GV3P32**	32	448	**LC1D25●●**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) Composition of TeSys contactors LC1D09/D18/D25/D32/D50/D65: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact.
(4) Replace ●● with the control circuit voltage reference given in the table below:

AC control circuit						
	Volts ∿	**24**	**48**	**115**	**230**	**230/240**
LC1D	50/60 Hz	B7	E7	FE7	P7	U7

For other voltages between 24 V and 660 V, or a DC control circuit, please refer to the TeSys catalog.

(5) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

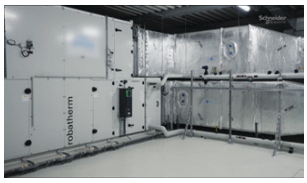
Variable speed drives
Altivar HVAC ATH600
Elevate HVAC performance, improving operational resilience

Altivar HVAC
Elevate HVAC performance



- IP20/IP00Drives for cabinet integration from 0.75 to 250 kW (*1…400 HP*)
- Wall-mounting IP21/UL type 1 drives or integrated in cabinet from 0.75 to 90 kW (*1…125 HP*)
- Wall-mounting IP55 drives from 0.75 to 90 kW (*1…125 HP*)









Altivar HVAC ATH600 is Schneider Electric's variable speed drive range for HVAC systems, supporting pumps, fans, and compressors. Available for wall mounting or cabinet integration, it improves energy efficiency, enhances reliability, withstands demanding environments, and reduces maintenance and ownership costs.

HVAC applications

Altivar HVAC ATH600 drives are specifically designed to meet the requirements of HVAC machines in cooling production, air treatment, fluid distribution such as air, chilled water and hot water:

- Air cooled chiller
- Water cooled chiller
- Roof top
- Cooling tower
- Condenser pump
- Air handling unit
- Variable primary pump
- Secondary pump
- Condenser

HVAC specific functions

ATH600 embeds functions for HVAC machine requirements in the following applications:

Pump

- Pump Start/Stop
- Pump Cycle Monitoring
- Dry Run Monitoring
- Pump Low Flow Monitoring
- Outlet Pressure Monitoring
- Booster Control
- Sleep/wake up

Fan

- Fire Mode
- Run Permissive
- PID Controller
- 2 Additional PIDs
- PID Summing Feedback
- Damper Control
- Broken Belt Detection
- AI Threshold Detection

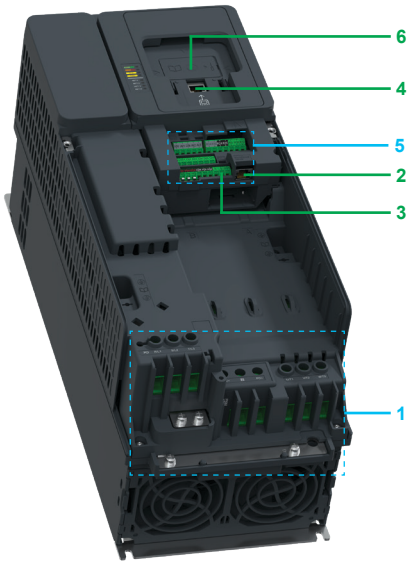
Compressor

- Pre-start management
- Periodic oiling cycle management
- Oiling management after low speed
- Oiling management after high speed
- Scroll protection
- Discharge gas by sensor
- Crankcase heating

Generic functions

- Jump frequencies
- Catch on the fly
- Ramp switching

Variable speed drives
Altivar HVAC ATH600
Description, standards and certifications



Altivar HVAC ATH600 description

Description

1. Power Terminals - Main power input connection
2. RJ45 Modbus/BACnet Port - Communication network connectivity
3. RS485 Open Connector - Modbus serial communication interface
4. RJ45 PC Port - PC and display connection
5. I/O Control Terminals - Inputs, outputs, safety control
6. RTC Battery - Maintains real-time clock data

Standards and certifications

- IEC & EMC Compliance: Meets IEC safety, EMC, harmonic, and emission standards for reliable operation.
- Functional Safety Certification: EN ISO 13849 Category 3 (PL e) ensures high machine safety performance.
- HVAC Refrigerant Compatibility: Approved for refrigeration and air-conditioning equipment using A2L refrigerants safely.
- Global Certifications: Certified with CE, UL, CSA, ATEX, EAC, and KCC for worldwide compliance.



EMC filter embedded in an ATH630D11N4Z drive

Electromagnetic compatibility (EMC)

Compliance with electromagnetic compatibility requirements has been incorporated into the design of the Altivar HVAC ATH600 drives, which simplifies installation and provides an economical means of helping to ensure equipment meets CE marking requirements.
To comply with conducted emissions standards, Altivar HVAC drives embed a category C1, C2 or C3 EMC filter:

Drive	Maximum length of shielded cable *(1) (2)* according to IEC/EN 61800-3 category		
	C1	C2	C3
	m/*ft*	m/*ft*	m/*ft*
ATH630U07N4...D22N4 ATH630U07N4Z...D22N4Z	–	10/*33*	10/*33*
ATH630D30N4...D45N4 ATH630D30N4Z...D45N4Z	–	50/*164*	50/*164*
ATH630D55N4...D90N4 ATH630D55N4Z...D90N4Z	–	–	50/*164*
ATH630C11N4Z...C16N4Z	–	–	150/*492*
ATH630C22N4Z...C25N4Z	–	–	50/*164*
ATH650U07N4…D18N4	–	10/*33*	10/*33*
ATH650U07N4C…D18N4C	20/*66*	20/*66*	20/*66*
ATH650D22N4…D45N4 ATH650D22N4U…D45N4U	–	50/*164*	50/*164*
ATH650D55N4…D90N4 ATH650D55N4U…D90N4U	–	–	150/*492*

(1) If motors are connected in parallel, it is the total cable length that should be taken into account.
(2) The maximum motor cable length is stated for the nominal switching frequency.

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP00 or IP20 drives, normal duty

380...480 V (-15...10%) IP00 or IP20 drives

Motor		Line supply				Altivar HVAC					
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Degree of protection	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V				
kW	*HP*	A	A	kVA	kA	A	A	A			kg/*lb*
Normal duty (ND) *(3)*											
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	**ATH630U07N4Z**	IP20	1.7/*3.7*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	**ATH630U15N4Z**	IP20	1.7/*3.7*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	**ATH630U22N4Z**	IP20	1.7/*3.7*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	**ATH630U30N4Z**	IP20	2.4/*5.3*
4	*5*	7	6	4.6	5	9.1	7.6	10	**ATH630U40N4Z**	IP20	2.4/*5.3*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	**ATH630U55N4Z**	IP20	2.4/*5.3*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	**ATH630U75N4Z**	IP20	3.8/*8.4*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	**ATH630D11N4Z**	IP20	3.8/*8.4*
15	*20*	24.3	21	16	22	30.5	27	33.6	**ATH630D15N4Z**	IP20	4.6/*10.1*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	**ATH630D18N4Z**	IP20	4.6/*10.1*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	**ATH630D22N4Z**	IP20	13.7/*30.2*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	**ATH630D30N4Z**	IP00	25.8/*56.9*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	**ATH630D37N4Z**	IP00	26/*57.3*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	**ATH630D45N4Z**	IP00	26.5/*58.4*
55	*75*	97.2	84.2	64	50	106	106	116.6	**ATH630D55N4Z**	IP00	52.6/*116*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	**ATH630D75N4Z**	IP00	54.1/*119.3*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	**ATH630D90N4Z**	IP00	54.6/*120.4*
110	*150*	201	165	132.3	50	211	211	232.1	**ATH630C11N4Z**	IP00	82/*180.8*
132	*200*	237	213	156	50	250	250	275	**ATH630C13N4Z**	IP00	82/*180.8*
160	*250*	284	262	186.9	50	302	302	332.2	**ATH630C16N4Z**	IP00	82/*180.8*
220	*350*	397	324	261.3	50	427	427	469.7	**ATH630C22N4Z**	IP00	172/*379.2*
250	*400*	451	366	296.8	50	481	481	529.1	**ATH630C25N4Z**	IP00	203/*447.5*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4Z...D18N4Z),4kHz (ATH630D22N4Z...D45N4Z), or 2.5 kHz (ATH630D55N4Z...C25N4Z), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4Z...D45Z), or 2...8 kHz (ATH630D55Z...C25Z). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)
(2) Typical value for the indicated motor power and for the maximum prospective line Isc.
(3) Values given for applications requiring a slight overload (up to 110%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP00 or IP20 drives, heavy duty

380...480 V (-15...10%) IP00 or IP20 drives

Motor		Line supply				Altivar HVAC					
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Degree of protection	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V				
kW	*HP*	A	A	kVA	kA	A	A	A			kg/*lb*
Heavy duty (HD) *(3)*											
0.37	*0.5*	1.2	1	0.8	5	1.2	1.1	1.8	**ATH630U07N4Z**	IP20	1.7/*3.7*
0.75	*1*	2	1.7	1.3	5	2.2	2.1	3.3	**ATH630U15N4Z**	IP20	1.7/*3.7*
1.5	*2*	3.5	2.8	2.3	5	3.7	3.4	5.6	**ATH630U22N4Z**	IP20	1.7/*3.7*
2.2	*3*	4.2	3.6	2.8	5	5.1	4.8	7.7	**ATH630U30N4Z**	IP20	2.4/*5.3*
3	*3*	5.4	4.7	3.6	5	7.2	6.2	10.8	**ATH630U40N4Z**	IP20	2.4/*5.3*
4	*5*	7	6	4.6	5	9.1	7.6	13.7	**ATH630U55N4Z**	IP20	2.4/*5.3*
5.5	*7.5*	9.7	8.3	6.4	22	12	11	18	**ATH630U75N4Z**	IP20	3.8/*8.4*
7.5	*10*	13	11	8.6	22	16	14	24	**ATH630D11N4Z**	IP20	3.8/*8.4*
11	*15*	18.3	15.7	12	22	22.5	21	33.8	**ATH630D15N4Z**	IP20	4.6/*10.1*
15	*20*	24.4	21.1	16.1	22	30.5	27	45.8	**ATH630D18N4Z**	IP20	4.6/*10.1*
18.5	*25*	34.1	29.9	22.4	50	39.2	39.2	58.8	**ATH630D22N4Z**	IP20	13.7/*30.2*
22	*30*	40.5	35.8	26.7	50	46.3	46.3	69.5	**ATH630D30N4Z**	IP00	25.8/*56.9*
30	*40*	54.8	48.3	36.1	50	61.5	61.5	92.3	**ATH630D37N4Z**	IP00	26/*57.3*
37	*50*	67.1	59	44.2	50	74.5	74.5	111.8	**ATH630D45N4Z**	IP00	26.5/*58.4*
45	*60*	81.4	71.8	53.6	50	88	88	132	**ATH630D55N4Z**	IP00	52.6/*116*
55	*75*	98.9	86.9	65.1	50	106	106	159	**ATH630D75N4Z**	IP00	54.1/*119.3*
75	*100*	134.3	118.1	88.4	50	145	145	217.5	**ATH630D90N4Z**	IP00	54.6/*120.4*
90	*125*	170	143	111.9	50	173	173	259.5	**ATH630C11N4Z**	IP00	82/*180.8*
110	*150*	201	165	132.3	50	211	211	316.5	**ATH630C13N4Z**	IP00	82/*180.8*
132	*200*	237	213	156	50	250	250	375	**ATH630C16N4Z**	IP00	82/*180.8*
160	*250*	296	246	194.8	50	302	302	453	**ATH630C22N4Z**	IP00	172/*379.2*
200	*300*	365	301	240.2	50	387	387	580.5	**ATH630C25N4Z**	IP00	203/*447.5*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4Z...D18N4Z),4kHz (ATH630D22N4Z...D45N4Z), or 2.5 kHz (ATH630D55N4Z...C25N4Z), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4Z...D45Z), or 2...8 kHz (ATH630D55Z...C25Z). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)
(2) Typical value for the indicated motor power and for the maximum prospective line Isc.
(3) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP21/UL type1 drives

380...480 V (-15...10%) IP21/UL type1 drives

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1) (2)*		Line current *(3)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(2)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(4)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	**ATH630U07N4**	2.3/*5.1*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	**ATH630U15N4**	2.3/*5.1*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	**ATH630U22N4**	2.3/*5.1*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	**ATH630U30N4**	3.4/*7.5*
4	*5*	7	6	4.6	5	9.1	7.6	10	**ATH630U40N4**	3.4/*7.5*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	**ATH630U55N4**	3.4/*7.5*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	**ATH630U75N4**	4.7/*10.4*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	**ATH630D11N4**	4.7/*10.4*
15	*20*	24.3	21	16	22	30.5	27	33.6	**ATH630D15N4**	5.7/*12.6*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	**ATH630D18N4**	5.7/*12.6*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	**ATH630D22N4**	14.3/*31.5*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	**ATH630D30N4**	28/*61.7*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	**ATH630D37N4**	28.2/*62.2*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	**ATH630D45N4**	28.7/*63.3*
55	*75*	97.2	84.2	64	50	106	106	116.6	**ATH630D55N4**	56.5/*124.6*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	**ATH630D75N4**	58/*127.9*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	**ATH630D90N4**	58.5/*129*
Heavy duty (HD) *(5)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	**ATH630U07N4**	2.3/*5.1*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	**ATH630U15N4**	2.3/*5.1*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	**ATH630U22N4**	2.3/*5.1*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	**ATH630U30N4**	3.4/*7.5*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	**ATH630U40N4**	3.4/*7.5*
4	5	7	6	4.6	5	9.1	7.6	13.7	**ATH630U55N4**	3.4/*7.5*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	**ATH630U75N4**	4.7/*10.4*
7.5	10	13	11	8.6	22	16	14	24	**ATH630D11N4**	4.7/*10.4*
11	15	18.3	15.7	12	22	22.5	21	33.8	**ATH630D15N4**	5.7/*12.6*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	**ATH630D18N4**	5.7/*12.6*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	**ATH630D22N4**	14.3/*31.5*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	**ATH630D30N4**	28/*61.7*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	**ATH630D37N4**	28.2/*62.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	**ATH630D45N4**	28.7/*63.3*
45	60	81.4	71.8	53.6	50	88	88	132	**ATH630D55N4**	56.5/*124.6*
55	75	98.9	86.9	65.1	50	106	106	159	**ATH630D75N4**	58/*127.9*
75	100	134.3	118.1	88.4	50	145	145	217.5	**ATH630D90N4**	58.5/*129*

(1) From 110 to 250 kW IP21 type1 protection degree reached by using an ATH630●●●N4Z drive with a conformity kit and a plain text display terminal VW3A1123.

(2) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4...D18N4), 4kHz (ATH630D22N4...D45N4), or 2.5 kHz (ATH630D55N4...D90N4), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4...D45), or 2...8 kHz (ATH630D55...D90N4). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

(3) Typical value for the indicated motor power and for the maximum prospective line Isc.

(4) Values given for applications requiring a slight overload (up to 110%).

(5) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP55 drives with category C2 or C3 integrated EMC filter

380...480 V (-15...10%) IP55 drives with category C2 or C3 integrated EMC filter

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(3)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	**ATH650U07N4**	4.5/*9.9*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	**ATH650U15N4**	4.5/*9.9*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	**ATH650U22N4**	4.5/*9.9*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	**ATH650U30N4**	5.1/*11.2*
4	*5*	7	6	4.6	5	9.1	7.6	10	**ATH650U40N4**	5.1/*11.2*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	**ATH650U55N4**	5.1/*11.2*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	**ATH650U75N4**	7.3/*16.1*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	**ATH650D11N4**	7.3/*16.1*
15	*20*	24.3	21	16	22	30.5	27	33.6	**ATH650D15N4**	7.9/*17.4*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	**ATH650D18N4**	7.9/*17.4*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	**ATH650D22N4**	20.6/*45.4*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	**ATH650D30N4**	50/*100.2*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	**ATH650D37N4**	50/*100.2*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	**ATH650D45N4**	50/*100.2*
55	*75*	97.2	84.2	64	50	106	106	116.6	**ATH650D55N4**	87/*191.8*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	**ATH650D75N4**	87/*191.8*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	**ATH650D90N4**	87.7/*193.3*
Heavy duty (HD) *(4)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	**ATH650U07N4**	4.5/*9.9*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	**ATH650U15N4**	4.5/*9.9*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	**ATH650U22N4**	4.5/*9.9*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	**ATH650U30N4**	5.1/*11.2*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	**ATH650U40N4**	5.1/*11.2*
4	5	7	6	4.6	5	9.1	7.6	13.7	**ATH650U55N4**	5.1/*11.2*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	**ATH650U75N4**	7.3/*16.1*
7.5	10	13	11	8.6	22	16	14	24	**ATH650D11N4**	7.3/*16.1*
11	15	18.3	15.7	12	22	22.5	21	33.8	**ATH650D15N4**	7.9/*17.4*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	**ATH650D18N4**	7.9/*17.4*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	**ATH650D22N4**	20.6/*45.4*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	**ATH650D30N4**	50/*100.2*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	**ATH650D37N4**	50/*100.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	**ATH650D45N4**	50/*100.2*
45	60	81.4	71.8	53.6	50	88	88	132	**ATH650D55N4**	87/*191.8*
55	75	98.9	86.9	65.1	50	106	106	159	**ATH650D75N4**	87/*191.8*
75	100	134.3	118.1	88.4	50	145	145	217.5	**ATH650D90N4**	87.7/*193.3*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH650U07N4...D18N4), 4kHz (ATH650D22N4...D45N4), or 2.5 kHz (ATH650D55N4...D90N4), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH650U07N4...D18N4), 2...16 kHz (ATH650D22N4...D45), or 2...8 kHz (ATH650D55...D90N4). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)
(2) Typical value for the indicated motor power and for the maximum prospective line Isc.
(3) Values given for applications requiring a slight overload (up to 110%).
(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP55 drives with category C1 integrated EMC filter

380...480 V (-15...10%) IP55 drives with category C1 integrated EMC filter

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(3)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	**ATH650U07N4C**	5/*11*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	**ATH650U15N4C**	5/*11*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	**ATH650U22N4C**	5/*11*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	**ATH650U30N4C**	5.6/*12.3*
4	*5*	7	6	4.6	5	9.1	7.6	10	**ATH650U40N4C**	5.6/*12.3*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	**ATH650U55N4C**	5.6/*12.3*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	**ATH650U75N4C**	8.1/*17.9*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	**ATH650D11N4C**	8.1/*17.9*
15	*20*	24.3	21	16	22	30.5	27	33.6	**ATH650D15N4C**	8.7/*19.2*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	**ATH650D18N4C**	8.7/*19.2*
Heavy duty (HD) *(4)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	**ATH650U07N4C**	5/*11*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	**ATH650U15N4C**	5/*11*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	**ATH650U22N4C**	5/*11*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	**ATH650U30N4C**	5.6/*12.3*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	**ATH650U40N4C**	5.6/*12.3*
4	5	7	6	4.6	5	9.1	7.6	13.7	**ATH650U55N4C**	5.6/*12.3*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	**ATH650U75N4C**	8.1/*17.9*
7.5	10	13	11	8.6	22	16	14	24	**ATH650D11N4C**	8.1/*17.9*
11	15	18.3	15.7	12	22	22.5	21	33.8	**ATH650D15N4C**	8.7/*19.2*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	**ATH650D18N4C**	8.7/*19.2*

(1) These values are given for a nominal switching frequency of 6 kHz for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz.
Above the nominal switching frequency, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)
(2) Typical value for the indicated motor power and for the maximum prospective line Isc.
(3) Values given for applications requiring a slight overload (up to 110%).
(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

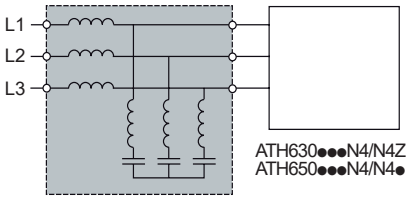
Three-phase supply voltage: 380...480 V 50/60 Hz
UL type 12 drives

380...480 V (-15...10%) UL type 12 drives

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	480 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(3)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	**ATH650U07N4**	4.5/*9.9*
1.5	*2*	3.5	2.7	2.2	5	3.7	3.4	4.1	**ATH650U15N4**	4.5/*9.9*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	**ATH650U22N4**	4.5/*9.9*
3	*3*	5.4	4.6	3.8	5	7.2	6.2	7.9	**ATH650U30N4**	5.1/*11.2*
4	*5*	7	6	5	5	9.1	7.6	10	**ATH650U40N4**	5.1/*11.2*
5.5	*7.5*	9.3	8.1	6.7	5	12	11	13.2	**ATH650U55N4**	5.1/*11.2*
7.5	*10*	12.9	11	9.1	22	16	14	17.6	**ATH650U75N4**	7.3/*16.1*
11	*15*	18.5	15.8	13.1	22	22.5	21	24.8	**ATH650D11N4**	7.3/*16.1*
15	*20*	24.3	21	17.5	22	30.5	27	33.6	**ATH650D15N4**	7.9/*17.4*
18.5	*25*	29.6	25.5	21.2	22	37	34	40.7	**ATH650D18N4**	7.9/*17.4*
22	*30*	39.6	34.4	28.6	50	46.3	46.3	50.9	**ATH650D22N4U**	21.4/*47.2*
30	*40*	53.3	45.9	38.2	50	61.5	61.5	67.7	**ATH650D30N4U**	51.6/*113.8*
37	*50*	66.2	57.3	47.6	50	74.5	74.5	82	**ATH650D37N4U**	51.6/*113.8*
45	*60*	79.8	69.1	57.4	50	88	88	96.8	**ATH650D45N4U**	51.6/*113.8*
55	*75*	97.2	84.2	70	50	106	106	116.6	**ATH650D55N4U**	89.3/*196.9*
75	*100*	131.3	112.7	93.7	50	145	145	159.5	**ATH650D75N4U**	89.3/*196.9*
90	*125*	156.2	135.8	112.9	50	173	173	190.3	**ATH650D90N4U**	90/*198.4*
Heavy duty (HD) *(4)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	**ATH650U07N4**	4.5/*9.9*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	**ATH650U15N4**	4.5/*9.9*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	**ATH650U22N4**	4.5/*9.9*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	**ATH650U30N4**	5.1/*11.2*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	**ATH650U40N4**	5.1/*11.2*
4	5	7	6	4.6	5	9.1	7.6	13.7	**ATH650U55N4**	5.1/*11.2*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	**ATH650U75N4**	7.3/*16.1*
7.5	10	13	11	8.6	22	16	14	24	**ATH650D11N4**	7.3/*16.1*
11	15	18.3	15.7	12	22	22.5	21	33.8	**ATH650D15N4**	7.9/*17.4*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	**ATH650D18N4**	7.9/*17.4*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	**ATH650D22N4U**	20.6/*45.4*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	**ATH650D30N4U**	50/*100.2*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	**ATH650D37N4U**	50/*100.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	**ATH650D45N4U**	50/*100.2*
45	60	81.4	71.8	53.6	50	88	88	132	**ATH650D55N4U**	87/*191.8*
55	75	98.9	86.9	65.1	50	106	106	159	**ATH650D75N4U**	87/*191.8*
90	*125*	134,3	118,1	98,2	50	145	145	217,5	**ATH650D90N4U**	90/*198.4*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH650U07N4...D18N4), 4kHz (ATH650D22N4U...D45N4U), or 2.5 kHz (ATH650D55N4U...D90N4U) for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH650U07N4...D18N4), 2...16 kHz (ATH650D22N4U..D45U), or 2...8 kHz (ATH650D55U...D90N4U). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)
(2) Typical value for the indicated motor power and for the maximum prospective line Isc.
(3) Values given for applications requiring a slight overload (up to 110%).
(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives
Altivar HVAC ATH600
Option: Passive filters
Presentation, 50 Hz passive filters



Altivar HVAC drive with passive filter



50 Hz passive filter VW3A46130

Presentation

Passive filters are used to obtain total harmonic distortion of less than 5%. Reactive power increases at no load or low load. To help reduce this reactive power, the filter capacitors can be disconnected (see the diagrams on our website). Passive filters meet IP20 protection level.

50 Hz three-phase supply passive filter

Motor rating		Corresponding drive	Filter		Reference (1)	Weight
			Nominal current			
			Input	Output		
kW	*HP*		A	A		kg/ *lb*
THDi < 5%						
22	*30*	ATH630D22N4/N4Z ATH650D22N4/N4●	43	45	**VW3A46126**	58/ *128*
30	*40*	ATH630D30N4/N4Z ATH650D30N4/N4●	58	60	**VW3A46127**	76/ *168*
37	*50*	ATH630D37N4/N4Z ATH650D37N4/N4●	72	75	**VW3A46128**	98/ *216*
45	*60*	ATH630D45N4/N4Z ATH650D45N4/N4●	86	90	**VW3A46129**	104/ *229*
55	*75*	ATH630D55N4/N4Z ATH650D55N4/N4U	101	105	**VW3A46130**	106/ *234*
75	*100*	ATH630D75N4/N4Z ATH650D75N4/N4U	144	150	**VW3A46131**	126/ *278*
90	*125*	ATH630D90N4/N4Z ATH650D90N4/N4U	180	187	**VW3A46132**	135/ *298*
110	*150*	ATH630C11N4Z	217	225	**VW3A46133**	172/ *379*
132	*200*	ATH630C13N4Z	252	262	**VW3A46134**	206/ *454*
160	*250*	ATH630C16N4Z	304	316	**VW3A46135**	221/ *487*
220	350	ATH630C22N4Z	380	395	**VW3A46137**	265/ *584*
250	400	ATH630C25N4Z	433	450	**VW3A46138**	272/ *600*

(1) When used with ATH650U07N4/N4C...D90N4/N4C drives, the filter must be mounted in a separate enclosure to maintain required protection for the installation.

Variable speed drives
Altivar HVAC ATH600
Option: Passive filters
60 Hz passive filters



60 Hz passive filter VW3A46170

60 Hz three-phase supply passive filter

Motor rating		Corresponding drive	Filter		Reference (1)	Weight
			Nominal current			
			Input	Output		
kW	*HP*		A	A		kg/ *lb*
THDi < 5%						
22	*30*	ATH630D22N4/N4Z ATH650D22N4/N4●	36	37	**VW3A46164**	53/ *117*
30	*40*	ATH630D30N4/N4Z ATH650D30N4/N4●	48	50	**VW3A46165**	57/ *126*
37	*50*	ATH630D37N4/N4Z ATH650D37N4/N4●	60	62	**VW3A46166**	75/ *165*
45	*60*	ATH630D45N4/N4Z ATH650D45N4/N4●	73	76	**VW3A46167**	97/ *214*
55	*75*	ATH630D55N4/N4Z ATH650D55N4/N4U	95	99	**VW3A46168**	104/ *229*
75	*100*	ATH630D75N4/N4Z ATH650D75N4/N4U	118	122	**VW3A46169**	106/ *234*
90	*125*	ATH630D90N4/N4Z ATH650D90N4/N4U	154	160	**VW3A46170**	126/ *2782*
110	*150*	ATH630C11N4Z	183	190	**VW3A46171**	135/ *298*
132	*200*	ATH630C13N4Z	231	240	**VW3A46172**	172/ *379*
160	*250*	ATH630C16N4Z	291	302	**VW3A46173**	221/ *487*
220	350	ATH630C22N4Z	355	369	**VW3A46174**	229/ *505*
250	400	ATH630C25N4Z	436	450	**VW3A46176**	270/ *595*

(1) When used with ATH650U07N4/N4C...D90N4/N4C drives, the filter must be mounted in a separate enclosure to maintain required protection for the installation.

Variable speed drives
Altivar HVAC ATH600
Option: EMC filters
Additional EMC input filters



EMC input filter VW3A4422



EMC input filter VW3A4708

Additional EMC input filters

References

Corresponding drive	Maximum length of shielded cable (1) according to IEC/EN 61800-3 category			In (2)	If	Degree of protection	Reference	Weight
	C1 (3)	C2 (3)	C3 (3)					
	m/*ft*	m/*ft*	m/*ft*	A	mA	IP		kg/*lb*
Three-phase supply voltage: 380...480 V 50 Hz								
ATH630U07N4...U22N4 ATH630U07N4Z...U22N4Z	40/*131*	40/*131*	40/*131*	8	7.6	20	**VW3A4422**	0.9/*1.98*
ATH630U30N4...U55N4 ATH630U30N4Z...U55N4Z	50/*164*	50/*164*	50/*164*					
ATH630U75N4…D18N4 ATH630U75N4Z…D18N4Z	50/*164*	50/*164*	50/*164*	35	7.6	20	**VW3A4703**	4.1/*9*
ATH630D22N4 ATH630D22N4Z	50/*164*	150/*492*	150/*492*	50	7.6	20	**VW3A4704**	5.2/*11.5*
ATH630D30N4 ATH630D30N4Z	50/*164*	150/*492*	150/*492*	70	13.9	20	**VW3A4705**	6.1/*13.4*
ATH630D37N4...D45N4 ATH630D37N4Z...D45N4Z	50/*164*	150/*492*	150/*492*	100	13.9	20	**VW3A4706**	6.5/*14.3*
ATH630D55N4 ATH630D55N4Z	–	50/*164*	50/*164*	160	13.9	20	**VW3A4707**	8.5/*18.7*
ATH630D75N4...D90N4 ATH630D75N4Z...D90N4Z	–	50/*164*	50/*164*	200	13.9	20	**VW3A4708**	9.5/*20.9*
ATH630C22N4Z...C25N4Z	–	–	150/*492*	546	500	00	**VW3A4411**	25/*57.3*

(1) The maximum lengths are given as examples only, as they vary depending on the stray capacitance of the motors and the cables used. If motors are connected in parallel, it is the total length of all cables that should be taken into account.
(2) Nominal filter current.
(3) Values given depend on the drive nominal switching frequency. This frequency depends on the drive rating.



GV4LE115

+



LC1D80●●

+



ATH630D45N4

Applications

Circuit breaker, contactor, and drive combinations help maintain reliable system operation and service continuity. The drive controls the motor, monitors short circuits between the drive and motor, and provides motor overload protection through its thermal monitoring function. If thermal monitoring is not enabled, external protection devices must be used. Proper selection of fuses or circuit breakers is essential to protect the installation from short-circuit damage and ensure safe operation. Visit EcoStruxure™ Motor Control Configurator and Installation Manual for more information.

IEC standard motor starters

Drive	Circuit breaker *(1)*				Line contactor
Reference	Reference *(2)*	Rating	Irm	Min cubicle volume	Reference *(3)(4)*
		A	A	L/*In*³	
IP20/IP21 Products installed in enclosure					
ATH630U07N4/N4Z	GV2L07	2,5	33,5	25/*1526*	LC1D09●●
ATH630U15N4/N4Z	GV2L08	4	51	25/*1526*	
ATH630U22N4/N4Z	GV2L10	6,3	78	25/*1526*	
ATH630U30N4/N4Z					
ATH630U40N4/N4Z	GV2L14	10	138	25/*1526*	
ATH630U55N4/N4Z					LC1D12●●
ATH630U75N4/N4Z	GV3L25	25	350	25/*1526*	LC1D18●●
ATH630D11N4/N4Z					LC1D25●●
ATH630D15N4/N4Z					
ATH630D18N4/N4Z	GV3L32	32	448	25/*1526*	LC1D32●●
ATH630D22N4/N4Z	GV3L50	50	700	56/*3417*	LC1D40A●●
ATH630D30N4/N4Z	GV3L65	65	910	115/*7018*	LC1D50A●●
ATH630D37N4/N4Z	GV4L80●/ GV4LE80●	80	480	115/*7018*	LC1D65A●●
ATH630D45N4/N4Z	GV4L115●/ GV4LE115●	115	690	115/*7018*	LC1D80●●
ATH630D55N4/N4Z					LC1D115●●
ATH630D75N4/N4Z	C16●3MA150	150	1350	132/*8055*	LC1D150●●
ATH630D90N4/N4Z	C25●3MA220	220	1980	132/*8055*	LC1G185●●●●
ATH630C11N4Z					LC1G225●●●●
ATH630C13N4Z	C40●31M320	320	1600	478/*29169*	LC1G265●●●●
ATH630C16N4Z					LC1G330●●●●
ATH630C22N4Z	C63●31M500	500	4500	878/*53579*	LC1G400●●●●
ATH630C25N4Z					LC1G500●●●●

(1) For Isc value refer to the tables page 60736/4 for ATH630●●●N4Z references and page 60736/6 for ATH630●●●N4 references.

(2) For references to be completed, replace ● with the letter corresponding to the breaking performance of the circuit breaker (F, N, H, S, or R). You can use the EcoStruxure™ Motor Control Configurator tool to support your customization.
Breaking capacity of circuit breakers according to standard IEC 60947-2:

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

(3) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185...G500: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog or use the EcoStruxure™ Motor Control Configurator tool to support your customization.

(4) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∿	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	**–**	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185...G500		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

Variable speed drives
Altivar HVAC ATH600
Motor starters
IP21 wall mounted products


GV2LE10

+


LC1D09●●

+


ATH630U22N4

IEC standard motor starters

Drive	Circuit breaker *(1)*	Fuse type: gG *(2)(3)*				Line contactor
Reference	Reference *(4)(5)*	Rating	Size	Reference	Fuse holder reference	Reference *(6)(7)*
		A	mm			
IP21 Wall mounted products						
ATH630U07N4	**GV2L07**	4	10x38	**DF2CN04**	DF103	LC1D09●●
ATH630U15N4	**GV2L08**	6	10x38	**DF2CN06**	DF103	
ATH630U22N4	**GV2L10**	8	10x38	**DF2CN08**	DF103	
ATH630U30N4	**GV2L10**	10	10x38	**DF2CN10**	DF103	
ATH630U40N4	**GV2L14**	12	10x38	**DF2CN12**	DF103	
ATH630U55N4	**GV2L14**	16	10x38	**DF2CN16**	DF103	LC1D12●●
ATH630U75N4	**GV3L25**	25	14x51	**DF2EN25**	DF143C	LC1D18●●
ATH630D11N4	**GV3L25**	32	14x51	**DF2EN32**	DF143C	LC1D25●●
ATH630D15N4	**GV3L25**	40	14x51	**DF2EN40**	DF143C	
ATH630D18N4	**GV3L32**	50	14x51	**DF2EN50**	DF143C	LC1D32●●
ATH630D22N4	**–**	80	22x58	**DF2FN80**	DF223C	LC1D40A●●
ATH630D30N4	**–**	100	22x58	**DF2FN100**	DF223C	LC1D50A●●
ATH630D37N4	**–**	125	NH00	**–**	GS2LL3	LC1D65A●●
ATH630D45N4	**–**	160	NH00	**–**	GS2LL3	LC1D80●●
ATH630D55N4	**–**	160	NH00	**–**	GS2LL3	LC1D115●●
ATH630D75N4	**–**	250	NH1	**–**	GS2N3	LC1D150●●
ATH630D90N4	**–**	250	NH1	**–**	GS2N3	LC1G185●●●●

(1) Isc max: 5 kA.

(2) General use fuses, conform to IEC60263-1.

(3) For Isc value refer to the table page 60736/6.

(4) Breaking capacity of circuit breakers according to standard IEC 60947-2:

Circuit breaker	Icu (kA) for 380…415 V
GV2L07...L14	>100
GV3L25	100
GV3L32	50

(5) Maximum short circuit current accepted by drive/circuit breaker association is limited to 5 kA if the drive is not in an enclosure.

(6) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog.

(7) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∼	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	**–**	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

Variable speed drives
Altivar HVAC ATH600
Motor starters
IP55 wall mounted products



GS2LL3

+



LC1D65A●●

+



ATH650D37N4U

IEC standard motor starters

Drive	Circuit breaker *(1)*	Fuse type: gG *(2)(3)*				Line contactor
Reference	Reference *(4)(5)*	Rating	Size	Reference	Fuse holder reference	Reference *(6)(7)*
		A	mm			
IP55 Wall mounted products						
ATH650U07N4/N4C	GV2L07	4	10x38	**DF2CN04**	**DF103**	LC1D09●●
ATH650U15N4/N4C	GV2L08	6	10x38	**DF2CN06**	**DF103**	
ATH650U22N4/N4C	GV2L10	8	10x38	**DF2CN08**	**DF103**	
ATH650U30N4/N4C	GV2L10	10	10x38	**DF2CN10**	**DF103**	
ATH650U40N4/N4C	GV2L14	12	10x38	**DF2CN12**	**DF103**	
ATH650U55N4/N4C	GV2L14	16	10x38	**DF2CN16**	**DF103**	LC1D12●●
ATH650U75N4/N4C	GV3L25	25	14x51	**DF2EN25**	**DF143C**	LC1D18●●
ATH650D11N4/N4C	GV3L25	32	14x51	**DF2EN32**	**DF143C**	LC1D25●●
ATH650D15N4/N4C	GV3L25	40	14x51	**DF2EN40**	**DF143C**	
ATH650D18N4/N4C	GV3L32	50	14x51	**DF2EN50**	**DF143C**	LC1D32●●
ATH650D22N4/N4U	–	80	22x58	**DF2FN80**	**DF223C**	LC1D40A●●
ATH650D30N4/N4U	–	100	22x58	**DF2FN100**	**DF223C**	LC1D50A●●
ATH650D37N4/N4U	–	125	NH00	–	**GS2LL3**	LC1D65A●●
ATH650D45N4/N4U	–	160	NH00	–	**GS2LL3**	LC1D80●●
ATH650D55N4/N4U	–	160	NH00	–	**GS2LL3**	LC1D115●●
ATH650D75N4/N4U	–	250	NH1	–	**GS2N3**	LC1D150●●
ATH650D90N4/N4U	–	250	NH1	–	**GS2N3**	LC1G185●●●●

(1) Isc max: 5 kA.

(2) General use fuses, conform to IEC60263-1.

(3) For Isc value refer to the tables page 60736/7 for ATH650●●●N4 references, page 60736/6 for ATH650●●●N4C references, and page 60736/9 for ATH650●●●N4U references.

(4) Breaking capacity of circuit breakers according to standard IEC 60947-2:

Circuit breaker	Icu (kA) for 380…415 V
GV2L07...L14	>100
GV3L25	100
GV3L32	50

(5) Maximum short circuit current accepted by drive/circuit breaker association is limited to 5 kA if the drive is not in an enclosure.

(6) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog.

(7) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∿	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	**–**	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

Altivar 212 - IP21 drives for building and HVAC projects (fan, pump, compressor)





Three-phase supply voltage: 200…240 V 50/60 Hz, without EMC filter *(1)*							
Motor	Power indicated on rating plate in kW	0.75	1.5	2.2	3	4	5.5
	Power indicated on rating plate in HP	1	2	3	–	5	7.5
Altivar 212	Max. continuous output current (In) 230 V in A *(2)*	4.6	7.5	10.6	13.7	18.7	24.2
Dimensions: W x H x D (mm)	EMC plate mounted (mm)	107 x 192 x 150			142 x 232 x 150		180 x 307 x 170
	EMC plate not mounted (mm)	107 x 143 x 150			142 x 184 x 150		180 x 232 x 170
Reference		–	–	–	–	–	–

Motor	Power indicated on rating plate in kW	7.5	11	15	18.5	22	30
	Power indicated on rating plate in HP	10	15	20	25	30	40
Altivar 212	Max. continuous output current (In) 230 V in A *(2)*	32	46.2	61	74.8	88	117
Dimensions: W x H x D (mm)	EMC plate mounted (mm)	180 x 307 x 170	245 x 405 x 190			240 x 542 x 214	320 x 723 x 290
	EMC plate not mounted (mm)	180 x 232 x 170	246 x 330 x 190			240 x 420 x 214	320 x 605 x 290
Reference		–	–	–	–	–	–

Three-phase supply voltage: 380…480 V 50/60 Hz, with integrated category C2 or C3 EMC filter *(1)*							
Motor	Power indicated on rating plate in kW	0.75	1.5	2.2	3	4	5.5
	Power indicated on rating plate in HP	1	2	3	3	5	7.5
Altivar 212	Max. continuous output current (In) in A *(2)*	2.2	3.7	5.1	7.2	9.1	12
Dimensions: W x H x D (mm)	EMC plate mounted (mm)	107 x 192 x 150			142 x 232 x 150		
	EMC plate not mounted (mm)	107 x 143 x 150			142 x 184 x 150		
Reference		**ATV212H075N4**	**ATV212HU15N4**	**ATV212HU22N4**	**ATV212HU30N4**	**ATV212HU40N4**	**ATV212HU55N4**

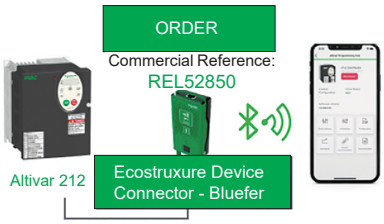
Motor	Power indicated on rating plate in kW	7.5	11	15	18.5	22	22
	Power indicated on rating plate in HP	10	15	20	25	30	30
Altivar 212	Max. continuous output current (In) in A *(2)*	16	22.5	30.5	37	43.5	43.5
Dimensions: W x H x D (mm)	EMC plate mounted (mm)	180 x 307 x 170			245 x 405 x 190		240 x 542 x 214
	EMC plate not mounted (mm)	180 x 232 x 170			245 x 330 x 190		240 x 420 x 214
Reference		**ATV212HU75N4**	**ATV212HD11N4**	**ATV212HD15N4**	**ATV212HD18N4**	**ATV212HD22N4S**	**ATV212HD22N4**

Motor	Power indicated on rating plate in kW	30	37	45	55	75
	Power indicated on rating plate in HP	40	50	60	75	100
Altivar 212	Max. continuous output current (In) in A *(2)*	58.5	79	94	116	160
Dimensions: W x H x D (mm)	EMC plate mounted (mm)	240 x 542 x 214	240 x 663 x 244		320 x 723 x 290	
	EMC plate not mounted (mm)	240 x 420 x 214	240 x 550 x 244		320 x 605 x 290	
Reference		**ATV212HD30N4**	**ATV212HD37N4**	**ATV212HD45N4**	**ATV212HD55N4**	**ATV212HD75N4**

(1) Drives are supplied with an EMC plate, for customer assembly.

(2) These values are given for a nominal switching frequency of 12 kHz up to ATV212HD15M3X and up to ATV212HD15N4 or 8 kHz for ATV21HD18M3X…HD30M3X and ATV212HD18N4…HD75N4, for use in continuous operation. The switching frequency can be set between 6 and 16 kHz for all ratings. Above 8 kHz or 12 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current. The nominal motor current must not exceed this derating value. See the derating curves on our website www.se.com.

Setup ATV212 with “Ecostuxure Industrial Device” Mobile Application



Free

“Ecostruxure Industrial Device” moile application for IOS or Android

Download the application via application stores:

Modbus RS232 Serial Cable with RJ45 Connectors on both sides

Ecostruxure Device Connector - Bluefer is necessary to connect mobile application to ATV212

Altivar 12 ultra-compact variable speed drives for commercial equipment





1 Altivar 12 drives with heatsink and single-phase supply voltage: 100...120 V 50/60 Hz *(1) (2)*

Motor	Power indicated on plate in kW *(3)*	0.18	0.37	0.75
	Power indicated on plate in HP *(3)*	0.25	0.5	1
Altivar 12	Max. continuous output current *(3)*	1.4	2.4	4.2
	Embedded communication	Modbus Serial Line		
	Application intelligence	Embedded functions		
	Withstand to harsh environment	Up to 60 °C with derating		
Dimensions: W x H x D (mm) *(4)*		72 x 143 x 102	72 x 143 x 121	105 x 142 x 156
Reference		**ATV12H018F1** *(4)*	**ATV12H037F1**	**ATV12H075F1**

Altivar 12 drives with heatsink and single-phase supply voltage: 200...240 V 50/60 Hz *(1) (2)*

Motor	Power indicated on plate in kW *(3)*	0.18	0.37	0.55	0.75	1.5	2.2
	Power indicated on plate in HP *(3)*	0.25	0.55	0.75	1	2	3
Altivar 12	Max. continuous output current *(3)*	1.4	2.4	3.5	4.2	7.5	10
Dimensions: W x H x D (mm) *(4)*		72 x 143 x 102	72 x 143 x 121	72 x 143 x 131		105 x 142 x 156	
Reference		**ATV12H018M2** *(4)*	**ATV12H037M2**	**ATV12H055M2**	**ATV12H075M2**	**ATV12HU15M2**	**ATV12HU22M2**

Altivar 12 drives with heatsink and three-phase supply voltage: 200...240 V 50/60 Hz *(1) (2)*

Motor	Power indicated on plate in kW *(3)*	0.18	0.37	0.75	1.5	2.2	3	4
	Power indicated on plate in HP *(3)*	0.25	0.55	1	2	3	–	5
Altivar 12	Max. continuous output current *(3)*	1.4	2.4	4.2	7.5	10	12.2	16.7
Dimensions: W x H x D (mm) *(4)*		72 x 143 x 102	72 x 143 x 121	72 x 143 x 131	105 x 143 x 131		140 x 184 x 141	
Reference		**ATV12H018M3** *(4)*	**ATV12H037M3**	**ATV12H075M3**	**ATV12HU15M3**	**ATV12HU22M3**	**ATV12HU30M3**	**ATV12HU40M3**

2 Accessories for Altivar 12 drives

Accessory	Simple Loader configuration tool *(5)*	Multi-Loader configuration tool *(5)*	USB/RJ45 cable for PC-drive connection
Compatibility	All Altivar 12 variable speed drives		
Reference	**VW3A8120**	**VW3A8121**	**TCSMCNAM3M002P**

***Note**: Altivar 12 variable speed drives are designed for 3-phase asynchronous motors.*
(1) Min. (U1) and max. (U2) nominal supply voltage: 100 (U1)…120 V (U2), 200 (U1)…240 V (U2).
(2) Altivar 12 variable speed drives are supplied with built-in EMC filters and comply with standard IEC/EN 61800-3. For more information, please refer to the product datasheet on our website www.se.com.
(3) These values are given for a nominal switching frequency of 4 kHz, for continuous operation. For derated operation, please refer to the product catalog. ATV12 variable speed drives can supply a transient output current of 1.5 x In for 60 s for every 10 min. cycle.
(4) All dimensions provided are without EMC plate installed.
(5) For more information about this tool, please refer to the product datasheet on our website www.se.com.

Communication modules and accessories for ATV320 variable speed drives





3 Communication buses and networks for ATV320

Type of communication module *(6)*	CANopen daisy chain *(7) (8) (9)*	CANopen SUB-D9 *(7) (8) (9)*	CANopen open style *(7) (8) (9)*
Reference	**VW3A3608**	**VW3A3618**	**VW3A3628**
Type of communication module *(6)*	Modbus TCP and Ethernet/IP network module *(8)*	PROFIBUS DP V1 communication module *(8)*	DeviceNet communication module *(8)*
Reference	**VW3A3616**	**VW3A3607**	**VW3A3609**
Type of communication module *(6)*	EtherCat communication module *(8)*	ProfiNet communication module *(8)*	Powerlink Communication module
Reference	**VW3A3601**	**VW3A3627**	**VW3A3619**

4 Accessories

Type of accessory	Communication adapter module *(6)*	Advance keypad	
Compatibility	ATV320● compact	All Altivar Machine ATV320 variable speed drives	
Reference *(8)*	**VW3A3600**	**VW3A1111**	
Type of accessory	Simple Loader configuration tool *(10)*	Multi-Loader configuration tool *(10)*	USB/RJ45 cable for PC-drive connection
Compatibility	All Altivar Machine ATV320 variable speed drives		
Reference	**VW3A8120**	**VW3A8121**	**TCSMCNAM3M002P**

(6) Altivar Machine ATV320 products with a compact control block require the VW3A3600 option adapter module in order to use any optional communication module.
(7) The Modbus serial link always uses the RJ45 communication port. If simultaneous use of the Modbus serial link and the CANopen machine bus is required, a CANopen communication module is needed.
(8) The Altivar Machine ATV320 drive can only take one communication module.
(9) When one of the CANopen communication modules is inserted in the Altivar Machine ATV320 drive, CANopen communication via the RJ45 communication port is disabled.
(10) For more information about this tool, please refer to the product datasheet on our website www.se.com.

Altivar Machine ATV320 variable speed drives for simple and advanced machines



1 ATV320 drives with compact control block and single-phase supply voltage 200...240 V 50/60 Hz

Motor	Power indicated on plate in kW	0.18	0.37	0.55	0.75	1.1	1.5	2.2
	Power indicated on plate in HP	0.25	0.5	0.75	1	1.5	2	3
Altivar 320	Max. continuous output current *(1)*	1.5	3.3	3.7	4.8	6.9	8	11
Dimensions: W x H x D (mm)		72 x 143 x 109	72 x 143 x 128	72 x 143 x 138		105 x 142 x 158		
Reference		ATV320U02M2C	ATV320U04M2C	ATV320U06M2C	ATV320U07M2C	ATV320U11M2C	ATV320U15M2C	ATV320U22M2C

ATV320 drives with compact control block and three-phase supply voltage 380...500 V 50/60 Hz

Motor	Power indicated on plate in kW	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Power indicated on plate in HP	0.5	0.75	1	1.5	2	3	4	5
Altivar 320	Max. continuous output current *(1)*	1.5	1.9	2.3	3	4.1	5.5	7.1	9.5
Dimensions: W x H x D (mm)		105 x 143 x 158					140 x 184 x 158		
Reference		ATV320U04N4C	ATV320U06N4C	ATV320U07N4C	ATV320U11N4C	ATV320U15N4C	ATV320U22N4C	ATV320U30N4C	ATV320U40N4C

Motor	Power indicated on plate in kW	5.5	7.5	11	15
	Power indicated on plate in HP	7.5	10	15	20
Altivar 320	Max. continuous output current *(1)*	14.3	17	27.7	33
Dimensions: W x H x D (mm)		150 x 232 x 178		180 x 330 x 198	
Reference		ATV320U55N4C	ATV320U75N4C	ATV320D11N4C	ATV320D15N4C

ATV320 drives with book control block and single-phase supply voltage 200...240 V 50/60 Hz

Motor	Power indicated on plate in kW	0.18	0.37	0.55	0.75	1.1	1.5	2.2
	Power indicated on plate in HP	0.25	0.5	0.75	1	1.5	2	3
Altivar 320	Max. continuous output current *(1)*	1.5	3.3	3.7	4.8	6.9	8	11
Dimensions: W x H x D (mm)		45 x 325 x 245				60 x 325 x 245		
Reference		ATV320U02M2B	ATV320U04M2B	ATV320U06M2B	ATV320U07M2B	ATV320U11M2B	ATV320U15M2B	ATV320U22M2B

ATV320 drives with book control block and three-phase supply voltage 380...500 V 50/60 Hz

Motor	Power indicated on plate in kW	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Power indicated on plate in HP	0.5	0.75	1	1.5	2	3	4	5
Altivar 320	Max. continuous output current *(1)*	1.5	1.9	2.3	3	4.1	5.5	7.1	9.5
Dimensions: W x H x D (mm)		45 x 325 x 245					60 x 325 x 245		
Reference		ATV320U04N4B	ATV320U06N4B	ATV320U07N4B	ATV320U11N4B	ATV320U15N4B	ATV320U22N4B	ATV320U30N4B	ATV320U40N4B

Motor	Power indicated on plate in kW	5.5	7.5	11	15
	Power indicated on plate in HP	7.5	10	15	20
Altivar 320	Max. continuous output current *(1)*	14.3	17	27.7	33
Dimensions: W x H x D (mm)		150 x 232 x 232		180 x 330 x 232	
Reference		ATV320U55N4B	ATV320U75N4B	ATV320D11N4B	ATV320D15N4B

Altivar with high IP enclosure and single-phase supply voltage: 200...240 V 50/60HZ

Motor	Power indicated on plate in kW	0.18	0.37	0.55	0.75	1.1	1.5	2.2
	Power indicated on plate in HP	0.25	0.5	0.75	1	1.5	2	3
Altivar 320	Max. continuous output current *(1)*	1.5	3.3	3.7	4.8	6.9	8	11
Dimensions: W x H x D (mm) *(2)*		250 x 340 x 182				250 x 340 x 235		
Reference		ATV320U02M2W(S)	ATV320U04M2W(S)	ATV320U06M2W(S)	ATV320U07M2W(S)	ATV320U11M2W(S)	ATV320U15M2W(S)	ATV320U22M2W(S)

Altivar with high IP enclosure and three-phase supply voltage 380...500 V 50/60 Hz

Motor	Power indicated on plate in kW	0.37	0.55	0.75	1.1	1.5	2.2	3	4
	Power indicated on plate in HP	0.5	0.75	1	1.5	2	3	4	5
Altivar 320	Max. continuous output current *(1)*	1.5	1.9	2.3	3	4.1	5.5	7.1	9.5
Dimensions: W x H x D (mm) *(2)*		250 x 340 x 200					250 x 340 x 235		
Reference		ATV320 U04N4W(S)	ATV320 U06N4W(S)	ATV320 U07N4W(S)	ATV320 U11N4W(S)	ATV320 U15N4W(S)	ATV320 U15M2W(S)	ATV320 U30N4W(S)	ATV320U40N4W(S)

Motor	Power indicated on plate in kW	5.5	7.5
	Power indicated on plate in HP	7.5	10
Altivar 320	Max. continuous output current *(1)*	14.3	17
Dimensions: W x H x D (mm) *(2)*		320 x 521 x 335	
Reference		ATV320 U55N4W(S)	ATV320 U75N4W(S)

Note: *Altivar Machine ATV320 variable speed drives are designed for 3-phase synchronous and asynchronous motors. ATV320 drives are supplied with braking chopper as standard. For braking resistor selection, please refer to the product catalog on our website www.se.com.*

(1) Altivar Machine ATV320 variable speed drives can supply a transient output current of 1.5 x In for 60 s.

(2) To obtain the new references for ATV320 IP66 drives, replace the last character with "W" (without switch) or "WS" (with switch).

Variable speed drives
Altivar 610
Option: Passive filters



Passive filter VW3A46106A

Passive filters: 400 V 50 Hz three-phase supply

Corresponding Altivar 610 drives	Line current value	Passive filter				Capacitor contactor
Reference	(380 V)	Reference	Quantity required per drive	IP degree	Weight	Reference *(1)*
	A				kg/ *lb*	
THDi < 10%						
ATV610U07N4●	3.1	**VW3A46098A**	1	IP20	6/ *13.2*	**LC1DFK●●**
ATV610U15N4●	5.7	**VW3A46099A**	1	IP20	9/ *19.8*	**LC1DFK●●**
ATV610U22N4●	7.8	**VW3A46100A**	1	IP20	12/ *26.5*	**LC1DFK●●**
ATV610U30N4●	10.1					
ATV610U40N4●	8.8	**VW3A46101A**	1	IP20	10/ *22*	**LC1DFK●●**
ATV610U55N4●	11.6	**VW3A46102A**	1	IP20	10.2/ *22.5*	**LC1DFK●●**
ATV610U75N4●	14.7	**VW3A46103A**	1	IP20	14.7/ *32.4*	**LC1DFK●●**
ATV610D11N4●	22	**VW3A46104A**	1	IP20	18/ *39.7*	**LC1DFK●●**
ATV610D15N4●	29.4	**VW3A46105A**	1	IP20	19.8/ *43.7*	**LC1DFK●●**
ATV610D18N4●	37.2	**VW3A46106A**	1	IP20	23.4/ *51.6*	**LC1DGK●●**
ATV610D22N4●	41.9	**VW3A46107A**	1	IP20	28.2/ *62.2*	**LC1DGK●●**
ATV610D30N4●	62.5	**VW3A46108A**	1	IP20	37/ *81.6*	**LC1DMK●●**
ATV610D37N4●	76.6	**VW3A46109A**	1	IP20	43/ *94.8*	**LC1DMK●●**
ATV610D45N4●	92.9	**VW3A46110A**	1	IP20	46/ *101.4*	**LC1DPK●●**
ATV610D55N4●	111.5	**VW3A46111A**	1	IP20	49/ *108*	**LC1DTK●●**
ATV610D75N4●	147.9	**VW3A46112A**	1	IP20	86/ *189.6*	**LC1DTK●●**
ATV610D90N4●	177.8	**VW3A46113A**	1	IP20	90.5/ *199.5*	**LC1DWK●●**
ATV610C11N4●	201	**VW3A46114A**	1	IP20	98.5/ *217.2*	**LC1DWK●●**
ATV610C13N4●	237	**VW3A46115A**	1	IP20	111/ *244.7*	**LC1DWK●●**
ATV610C16N4●	284	**VW3A46116A**	1	IP20	122/ *269*	**LC1G115●●●●**
ATV610C22N4	403	**VW3A46118A**	1	IP20	240/ *529.1*	**LC1G185●●●●**
ATV610C25N4	454					**LC1G265●●●●**
ATV610C31N4	570.9	**VW3A46119A**	1	IP00	270/ *595.2*	**LC1G330●●●●**

(1) Replace ●●/●●●● with the appropriate control voltage code

Variable speed drives
Altivar 610
Options: dv/dt filters

dv/dt filters

Corresponding drives	Maximum length of motor cable			Degree of protection	Nominal current	Unit reference	Weight
	Maximum switching frequency *(1)*	Shielded cable *(2)*	Unshielded cable *(2)*				
	kHz	m/*ft*	m/*ft*	IP	A		kg/*lb*
Three-phase supply voltage: 380...460 V							
ATV610U07N4●...U22N4●	4	150/*492*	200/*656*	20	6	**VW3A5301**	11.000/*24.251*
ATV610U30N4●...U55N4●	4	150/*492*	200/*656*	20	15	**VW3A5302**	12.000/*26.455*
ATV610U75N4●...D15N4●	4	250/*820*	300/*984*	20	25	**VW3A5303**	12.000/*26.455*
ATV610D18N4●...D22N4●	4	250/*820*	300/*984*	20	50	**VW3A5304**	18.000/*39.683*
ATV610D30N4●...D45N4●	4	250/*820*	300/*984*	20	95	**VW3A5305**	19.000/*41.888*
ATV610D55N4●...D90N4●	2.5	300/*984*	350/*1,148*	00	180	**VW3A5306**	22.000/*48.502*
ATV610C11N4●...C16N4●	2.5	300/*984*	350/*1,148*	00	305	**VW3A5307**	40.000/*88.185*
ATV610C22N4	2.5	250/*820*	350/*1,148*	00	427	**VW3A5106**	58.000/*127.868*
ATV610C25N4...C31N4	2.5	200/*656*	350/*1,148*	00	481	**VW3A5107**	93.000/*205.23*

(1) The filters are designed to operate in a switching frequency range of between 2 and 8 kHz.
(2) Values given depend on the nominal switching frequency of the drive. This frequency depends on the drive rating. These cable lengths are given as examples only as they can vary depending on the application. They correspond to motors conforming to IEC 6034-25 and NEMA MG1/31.2006.

Variable speed drives
Altivar 610
Motor starters



NSX160-MA150

+



LC1D115

+



ATV610D55N4

IEC standard motor starters

Motor Power *(1)*		Drive reference	Circuit breaker				Line contactor reference *(2)*
			Global reference	Magnetic protection rating	Ics *(1)*	Irm	
kW	*HP*			A	kA	A	
Three-phase supply voltage: 380…460 V 50/60 Hz							
0,75	*1*	**ATV610U07N4●**	**GV2L08**	4	5	74	**LC1D09●●**
1,5	*2*	**ATV610U15N4●**	**GV2L10**	6,3	5	91	
2,2	*3*	**ATV610U22N4●**	**GV2L14**	10	5	149	
3	–	**ATV610U30N4●**	**GV2L16**	14	5	253.4	**LC1D25●●**
4	*5*	**ATV610U40N4●**	**GV2L16**	14	5	253.4	
5,5	*7,5*	**ATV610U55N4●**	**GV2L16**	14	22	253.4	
7,5	*10*	**ATV610U75N4●**	**GV2L20**	18	22	341	**LC1D32●●**
11	*15*	**ATV610D11N4●**	**GV2L22**	25	22	388.3	
15	*20*	**ATV610D15N4●**	**GV3L32**	32	22	448	**LC1D40A●●**
18,5	*25*	**ATV610D18N4●**	**GV3L40**	40	22	560	**LC1D50A●●**
22	*30*	**ATV610D22N4●**	**GV3L50**	50	22	700	
30	*40*	**ATV610D30N4●**	**GV3L65**	65	22	910	**LC1D65A●●**
37	*50*	**ATV610D37N4●**	**GV4L80●**	80	22	480	**LC1D80●●**
45	*60*	**ATV610D45N4●**	**GV4L115●**	115	22	690	**LC1G115●●●●**
55	*75*	**ATV610D55N4●**	**NSX160●●MA150**	150	22	1350	
75	*100*	**ATV610D75N4●**	**NSX160●●MA150**	150	22	1350	**LC1G150●●●●**
90	*125*	**ATV610D90N4●**	**NSX250●●MA220**	220	50	1980	**LC1G225●●●●**
110	*150*	**ATV610C11N4●**	**NSX250●●MA220**	220	50	1980	
132	*200*	**ATV610C13N4●**	**NSX400.Mic 1.3M 320A**	320	50	4800	**LC1G265●●●●**
160	*250*	**ATV610C16N4●**	**NSX400.Mic 1.3M 320A**	320	50	4800	**LC1G330●●●●**
220	*350*	**ATV610C22N4**	**NSX630.Mic 1.3M 500A**	500	50	6500	**LC1G400●●●●**
250	*400*	**ATV610C25N4**	**NSX630.Mic 1.3M 500A**	500	50	6500	**LC1G500●●●●**
315	*500*	**ATV610C31N4**	**NS630● Micrologic 2 or 5**	800	50	1600	**LC1G630●●●●**

(1) At 400/415 V.
(2) Replace ●/●●/●●●● with the control voltage code indicated in the table below:

Basic reference	Power supply	Control voltage code			
	Volts ∿	380	415	440	
LC1D09…LC1D80	50/60 Hz	**Q7**	**N7**	**R7**	
	50 Hz	**Q5**	**N5**	**R5**	
	60 Hz	**Q6**	–	**R6**	
	Volts ∿	**24...48**	**48...130**	**100...250**	**200...500**
LC1G115…LC1G500		**BEEA**	**EHEA** **EHEN**	**KUEA** **KUEN**	**LSEA** **LSEN**
LC1G630		–	**EHEA** **EHEN**	**KUEN**	**LSEA** **LSEN**

For other voltages available between 24 V and 660 V, or a DC control circuit, please contact our Customer Care Center.

Variable speed drives
Altivar 610
Drives and fuses

Coordination table between drives and fuses

Variable speed drives					Semi-conductor fuses	
Line current		Isc	Reference	Power	Nominal current	Type
380 V	460 V					
		kA		kW	A	
3.1	2.6	5	ATV610U07N4●	0.75	8	gR
5.7	4.8	5	ATV610U15N4●	1.5	10	gR
7.8	6.5	5	ATV610U22N4●	2.2	12	gR
10.1	8.4	5	ATV610U30N4●	3	20	gR
8.8	7.9	5	ATV610U40N4●	4	16	gR
11.6	10.5	22	ATV610U55N4●	5.5	20	gR
14.7	12.8	22	ATV610U75N4●	7.5	25	gR
22	19.6	22	ATV610D11N4●	11	40	gR
29.4	26.0	22	ATV610D15N4●	15	50	gR
37.2	33.5	22	ATV610D18N4●	18.5	63	gR
41.9	36.2	22	ATV610D22N4●	22	80	gR
62.5	55.8	22	ATV610D30N4●	30	100	gR
76.6	68.3	22	ATV610D37N4●	37	125	gR
92.9	82.7	22	ATV610D45N4●	45	160	gR
111.5	99.7	22	ATV610D55N4●	55	160	gR
147.9	130.2	22	ATV610D75N4●	75	250	gR
177.8	159.9	50	ATV610D90N4●	90	250	gR
201	175.7	50	ATV610C11N4●	110	315	aR
237	203.8	50	ATV610C13N4●	132	350	aR
284	249.5	50	ATV610C16N4●	160	400	aR
403	341	50	ATV610C22N4●	220	630	aR
454	383	50	ATV610C25N4●	250	700	aR
571	480.5	50	ATV610C31N4●	315	900	aR

Variable speed drives
Altivar 610
ATV610●●●N4● drives

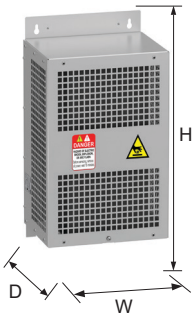


Variable speed drives 380...460 V IP20

Overall dimensions

Reference		W x H x D	
		mm	*in.*
ATV610U07N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U15N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U22N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U30N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U40N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U55N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610U75N4●		145 x 297 x 203	*5.71 x 11.69 x 7.99*
ATV610D11N4●		171 x 360 x 233	*6.73 x 14.17 x 9.17*
ATV610D15N4●		171 x 360 x 233	*6.73 x 14.17 x 9.17*
ATV610D18N4●		211 x 495 x 232	*8.31 x 19.50 x 9.13*
ATV610D22N4●		211 x 495 x 232	*8.31 x 19.50 x 9.13*
ATV610D30N4●		226 x 613 x 271	*8.90 x 24.10 x 10.67*
ATV610D37N4●		226 x 613 x 271	*8.90 x 24.10 x 10.67*
ATV610D45N4●		226 x 613 x 271	*8.90 x 24.10 x 10.67*
ATV610D55N4●		290 x 762 x 323	*11.42 x 30 x 12.72*
ATV610D75N4●		290 x 762 x 323	*11.42 x 30 x 12.72*
ATV610D90N4●		290 x 762 x 323	*11.42 x 30 x 12.72*
ATV610C11N4●		300 x 850 x 375	*11.81 x 33.46 x 14.76*
	With option VW3A9704	300 x 1156 x 375	*11.81 x 45.51 x 14.76*
ATV610C13N4●		300 x 850 x 375	*11.81 x 33.46 x 14.76*
	With option VW3A9704	300 x 1156 x 375	*11.81 x 45.51 x 14.76*
ATV610C16N4●		300 x 850 x 375	*11.81 x 33.46 x 14.76*
	With option VW3A9704	300 x 1156 x 375	*11.81 x 45.51 x 14.76*
ATV610C22N4		440 x 1196 x 379	*17.32 x 47.09 x 14.92*
	With option VW3A9707	446 x 1579 x 379	*17.56 x 62.17 x 14.92*
ATV610C25N4		440 x1196 x 379	*17.32 x 47.09 x 14.92*
	With option VW3A9707	446 x 1579 x 379	*17.56 x 62.17 x 14.92*
ATV610C31N4		595 x1196 x 379	*23.43 x 47.09 x 14.92*
	With option VW3A9708	595 x 1580 x 380	*23.43 x 62.2 x 14.96*

Variable speed drives
Altivar 610
Options: dv/dt filters and passive filters



dv/dt filters		
Overall dimensions		
Reference	**W x H x D**	
	mm	***in.***
VW3A5301	295 x 535 x 215	*11.61 x 21.06 x 8.47*
VW3A5302	295 x 535 x 215	*11.61 x 21.06 x 8.47*
VW3A5303	295 x 535 x 215	*11.61 x 21.06 x 8.47*
VW3A5304	295 x 560 x 245	*11.61 x 22.05 x 9.65*
VW3A5305	295 x 610 x 245	*11.61 x 24.02 x 9.65*
VW3A5306	380 x 235 x 350	*14.96 x 9.25 x 13.78*
VW3A5307	360 x 420 x 270	*14.17 x 16.54 x 10.63*
VW3A5106	245 x 250 x 200	*9.65 x 9.84 x 7.87*
VW3A5107	320 x 250 x 220	*12.60 x 9.84 x 8.66*

Passive filters		
Overall dimensions		
Reference	**W x H x D**	
	mm	***in.***
VW3A46098A	160 x 360 x 185	*6.3 x 14.17 x 7.28*
VW3A46099A	160 x 360 x 185	*6.3 x 14.17 x 7.28*
VW3A46100A	180 x 425 x 206	*7.09 x 16.73 x 8.11*
VW3A46101A	185 x 390 x 190	*7.28 x 15.35 x 7.48*
VW3A46102A	185 x 390 x 190	*7.28 x 15.35 x 7.48*
VW3A46103A	185 x 390 x 190	*7.28 x 15.35 x 7.48*
VW3A46104A	250 x 455 x 230	*9.84 x 17.91 x 9.06*
VW3A46105A	250 x 455 x 230	*9.84 x 17.91 x 9.06*
VW3A46106A	250 x 455 x 230	*9.84 x 17.91 x 9.06*
VW3A46107A	250 x 455 x 230	*9.84 x 17.91 x 9.06*
VW3A46108A	280 x 520 x 248	*11.02 x 20.47 x 9.76*
VW3A46109A	280 x 520 x 248	*11.02 x 20.47 x 9.76*
VW3A46110A	280 x 580 x 248	*11.02 x 22.80 x 9.76*
VW3A46111A	280 x 580 x 248	*11.02 x 22.80 x 9.76*
VW3A46112A	450 x 700 x 385	*17.72 x 27.56 x 15.16*
VW3A46113A	450 x 700 x 385	*17.72 x 27.56 x 15.16*
VW3A46114A	450 x 700 x 385	*17.72 x 27.56 x 15.16*
VW3A46115A	450 x 700 x 385	*17.72 x 27.56 x 15.16*
VW3A46116A	450 x 700 x 385	*17.72 x 27.56 x 15.16*
VW3A46118A	650 x 1,120 x 505	*25.59 x 44.09 x 19.88*
VW3A46119A	650 x 1,120 x 505	*25.59 x 44.09 x 19.88*

Variable speed drives
Altivar 610
Supply voltage 380…460 V 50/60Hz with keypad



ATV610U07N4



ATV610D18N4

IP20 three-phase 380...460 V drives with integrated category C3 EMC filter

Motor			Power supply to the power section				Altivar 610			
Nominal power indicated on rating plate *(1)*			Max. input current *(2)*		Apparent power	Max. prospective line Isc	Maximum continuous current *(1)*	Maximum transient current for 60 s	Reference	Weight
			380 V	460 V	460 V					
ND: Normal duty (3)										
HD: Heavy duty (4)										
	kW	*HP*	A	A	kVA	kA	A	A		kg/ *lb*
ND	0.75	*1*	3.1	2.6	2.1	5	2.2	2.4	**ATV610U07N4**	3.135/ *6.9*
HD	0.37	*0.5*	1.7	1.4	1.1	5	1.5	2.3		
ND	1.5	*2*	5.7	4.8	3.8	5	4	4.4	**ATV610U15N4**	3.135/ *6.9*
HD	0.75	*1*	3.1	2.6	2.1	5	2.2	3.3		
ND	2.2	*3*	7.8	6.5	5.2	5	5.6	6.2	**ATV610U22N4**	3.135/ *6.9*
HD	1.5	*2*	5.6	4.6	3.7	5	4	6		
ND	3	–	10.1	8.4	6.7	5	7.2	7.9	**ATV610U30N4**	3.135/ *6.9*
HD	2.2	*3*	7.6	6.4	5.1	5	5.6	8.4		
ND	4	*5*	8.8	7.9	6.3	5	9.3	10.2	**ATV610U40N4**	4.045/ *8.9*
HD	3	–	7.2	6.2	4.9	5	7.2	10.8		
ND	5.5	*7.5*	11.6	10.5	8.4	22	12.7	14	**ATV610U55N4**	4.575/ *10*
HD	4	*5*	8.9	7.9	6.3	22	9.3	14		
ND	7.5	*10*	14.7	12.8	10.2	22	15.8	17.4	**ATV610U75N4**	4.575/ *10*
HD	5.5	*7.5*	11.3	10.2	8.1	22	12.7	19.1		
ND	11	*15*	22	19.6	15.6	22	23.5	25.9	**ATV610D11N4**	7.73/ *17*
HD	7.5	*10*	16.4	14.6	11.6	22	16.5	24.8		
ND	15	*20*	29.4	26	20.7	22	31.7	34.9	**ATV610D15N4**	7.73/ *17*
HD	11	*15*	23	20.8	16.6	22	23.5	35.3		
ND	18.5	*25*	37.2	33.5	26.7	22	39.2	43.1	**ATV610D18N4**	13.5/ *29.8*
HD	15	*20*	31.6	28.3	22.6	22	31.7	47.6		
ND	22	*30*	41.9	36.2	28.8	22	46.3	50.9	**ATV610D22N4**	13.5/ *29.8*
HD	18.5	*25*	36	31.6	25.2	22	39.2	58.8		
ND	30	*40*	62.5	55.8	44.5	22	61.5	67.7	**ATV610D30N4**	25.5/ *56.2*
HD	22	*30*	49.7	42.5	33.8	22	46.3	69.5		
ND	37	*50*	76.6	68.3	54.4	22	74.5	82	**ATV610D37N4**	25.5/ *56.2*
HD	30	*40*	65.8	56.8	45.2	22	59.6	89.4		

*(1) These values are given for a nominal switching frequency of 4 kHz up to **ATV610D45N4**, or 2.5 kHz for **ATV610D55N4...C31N4** for use in continuous operation.*
*The switching frequency is adjustable from 2…12 kHz up to **ATV610D45N4**, or from 1…8 kHz for **ATV610D55N4...C31N4**. Above 2.5 or 4 kHz (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual).*

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) Values given for applications requiring a slight overload (up to 110% for 60 s or 120% for 20 s).

(4) Values given for applications requiring a slight overload (up to 150% for 60 s).

Variable speed drives
Altivar 610
Supply voltage 380…460 V 50/60Hz with keypad



ATV610C11N4



ATV610C22N4

IP20 three-phase 380...460 V drives with integrated category C3 EMC filter *(continued)*

Motor			Power supply to the power section				Altivar 610			
Nominal power indicated on rating plate *(1)*			Max. input current *(2)*		Apparent power	Max. prospective line Isc	Maximum continuous current *(1)*	Maximum transient current for 60 s	Reference	Weight
			380 V	460 V	460 V					
ND: Normal duty *(3)*										
HD: Heavy duty *(4)*										
	kW	*HP*	A	A	kVA	kA	A	A		kg/ *lb*
ND	45	*60*	92.9	82.7	65.9	22	88	97	**ATV610D45N4**	25.5/ *56.2*
HD	37	*50*	80.5	69.6	55.4	22	74.5	112		
ND	55	*75*	111.5	99.7	79.5	22	120	132	**ATV610D55N4**	53/ *117*
HD	45	*60*	95.9	84	66.9	22	88	132		
ND	75	*100*	147.9	130.2	103.7	22	145	160	**ATV610D75N4**	53/ *117*
HD	55	*75*	115.8	101.7	81	22	106	159		
ND	90	*125*	177.8	159.9	127.4	50	173	190	**ATV610D90N4**	53/ *117*
HD	75	*100*	155.8	138.1	110	50	145	218		
ND	110	*150*	201	175.7	140	50	211	232	**ATV610C11N4** *(5)*	85.5/ *188.5*
HD	90	*125*	170	149.1	118.8	50	173	260		
ND	132	*200*	237	203.8	162.4	50	250	275	**ATV610C13N4** *(5)*	85.5/ *188.5*
HD	110	*150*	201	174.2	138.7	50	211	317		
ND	160	*250*	284	249.5	198.8	50	302	332	**ATV610C16N4** *(5)*	85.5/ *188.5*
HD	132	*200*	237	205.9	164	50	250	375		
ND	220	*350*	403	341	272	50	427	470	**ATV610C22N4** *(5)*	173/ *381*
HD	160	*250*	301	260	207.2	50	302	453		
ND	250	*400*	454	383	305	50	481	529	**ATV610C25N4** *(5)*	173/ *381*
HD	200	*300*	369	314	250.2	50	370	555		
ND	315	*500*	571	480	382.8	50	616	678	**ATV610C31N4** *(5)*	180/ *397*
HD	250	*400*	460	391	311.4	50	481	722		

*(1) These values are given for a nominal switching frequency of 4 kHz up to **ATV610D45N4**, or 2.5 kHz for **ATV610D55N4...C31N4** for use in continuous operation.*
*The switching frequency is adjustable from 2…12 kHz up to **ATV610D45N4**, or from 1…8 kHz for **ATV610D55N4...C31N4**. Above 2.5 or 4 kHz (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual).*

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) Values given for applications requiring a slight overload (up to 110% for 60 s or 120% for 20 s).

(4) Values given for applications requiring a slight overload (up to 150% for 60 s).

(5) This drive is IP00, you can order an IP21 conformity kit as option.

Variable speed drives

Altivar 610

Supply voltage 380…460 V 50/60Hz without keypad



ATV610U07N4Z



ATV610D11N4Z



ATV610D18N4Z

IP20 three-phase 380...460 V drives with integrated category C3 EMC filter

Motor			Power supply to the power section				Altivar 610			
Nominal power indicated on rating plate *(1)*			Max. input current *(2)*		Apparent power	Max. prospective line Isc	Maximum continuous current *(1)*	Maximum transient current for 60 s	Reference	Weight
			380 V	460 V	460 V					
ND: Normal duty (3)										
HD: Heavy duty (4)										
	kW	HP	A	A	kVA	kA	A	A		kg/lb
ND	0.75	1	3.1	2.6	2.1	5	2.2	2.4	**ATV610U07N4Z●**	2.985/6.58
HD	0.37	0.5	1.7	1.4	1.1	5	1.5	2.3		
ND	1.5	2	5.7	4.8	3.8	5	4	4.4	**ATV610U15N4Z●**	2.985/6.58
HD	0.75	1	3.1	2.6	2.1	5	2.2	3.3		
ND	2.2	3	7.8	6.5	5.2	5	5.6	6.2	**ATV610U22N4Z●**	2.985/6.58
HD	1.5	2	5.6	4.6	3.7	5	4	6		
ND	3	–	10.1	8.4	6.7	5	7.2	7.9	**ATV610U30N4Z●**	2.985/6.58
HD	2.2	3	7.6	6.4	5.1	5	5.6	8.4		
ND	4	5	8.8	7.9	6.3	5	9.3	10.2	**ATV610U40N4Z●**	3.885/8.565
HD	3	–	7.2	6.2	4.9	5	7.2	10.8		
ND	5.5	7.5	11.6	10.5	8.4	22	12.7	14	**ATV610U55N4Z●**	4.415/9.73
HD	4	5	8.9	7.9	6.3	22	9.3	14		
ND	7.5	10	14.7	12.8	10.2	22	15.8	17.4	**ATV610U75N4Z●**	4.415/9.73
HD	5.5	7.5	11.3	10.2	8.1	22	12.7	19.1		
ND	11	15	22	19.6	15.6	22	23.5	25.9	**ATV610D11N4Z●**	7.540/16.62
HD	7.5	10	16.4	14.6	11.6	22	16.5	24.8		
ND	15	20	29.4	26	20.7	22	31.7	34.9	**ATV610D15N4Z●**	7.540/16.62
HD	11	15	23	20.8	16.6	22	23.5	35.3		
ND	18.5	25	37.2	33.5	26.7	22	39.2	43.1	**ATV610D18N4Z●**	13.300/29.32
HD	15	20	31.6	28.3	22.6	22	31.7	47.6		
ND	22	30	41.9	36.2	28.8	22	46.3	50.9	**ATV610D22N4Z●**	13.300/29.32
HD	18.5	25	36	31.6	25.2	22	39.2	58.8		
ND	30	40	62.5	55.8	44.5	22	61.5	67.7	**ATV610D30N4Z●**	25.295/55.77
HD	22	30	49.7	42.5	33.8	22	46.3	69.5		
ND	37	50	76.6	68.3	54.4	22	74.5	82	**ATV610D37N4Z●**	25.295/55.77
HD	30	40	65.8	56.8	45.2	22	59.6	89.4		
ND	45	60	92.9	82.7	65.9	22	88	97	**ATV610D45N4Z●**	25.295/55.77
HD	37	50	80.5	69.6	55.4	22	74.5	112		
ND	55	75	111.5	99.7	79.5	22	120	132	**ATV610D55N4Z●**	52.045/114.7
HD	45	60	95.9	84	66.9	22	88	132		
ND	75	100	147.9	130.2	103.7	22	145	160	**ATV610D75N4Z●**	52.045/114.7
HD	55	75	115.8	101.7	81	22	106	159		
ND	90	125	177.8	159.9	127.4	50	173	190	**ATV610D90N4Z●**	52.045/114.7
HD	75	100	155.8	138.1	110	50	145	218		
ND	110	150	201	175.7	140	50	211	232	**ATV610C11N4Z●** *(5)*	85.445/188.4
HD	90	125	170	149.1	118.8	50	173	260		
ND	132	200	237	203.8	162.4	50	250	275	**ATV610C13N4Z●** *(5)*	85.445/188.4
HD	110	150	201	174.2	138.7	50	211	317		
ND	160	250	284	249.5	198.8	50	302	332	**ATV610C16N4Z●** *(5)*	85.445/188.4
HD	132	200	237	205.9	164	50	250	375		

*(1) These values are given for a nominal switching frequency of 4 kHz up to **ATV610D45N4Z●**, or 2.5 kHz for **ATV610D55N4Z●...C16N4Z●** for use in continuous operation.*
*The switching frequency is adjustable from 2…12 kHz up to **ATV610D45N4Z●**, or from 1…8 kHz for **ATV610D55N4Z●...C16N4Z●**. Above 2.5 or 4 kHz (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves Installation Manual).*

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) Values given for applications requiring a slight overload (up to 110% for 60 s or 120% for 20 s).

(4) Values given for applications requiring a slight overload (up to 150% for 60 s).

(5) This drive is IP00, you can order an IP21 conformity kit as option.

Variable speed drives
Altivar 610
Mounting accessories



VW3A9708

Accessories for mounting of variable speed drives

IP conformity kit

For use with variable speed drives	IP rating	Power		Reference
		kW	*HP*	
ATV610C11N4●…C16N4●	IP21	110...160	*149...216*	**VW3A9704**
ATV610C22N4...C25N4	IP21	220...250	*350...400*	**VW3A9707**
ATV610C31N4	IP21	315	*500*	**VW3A9708**

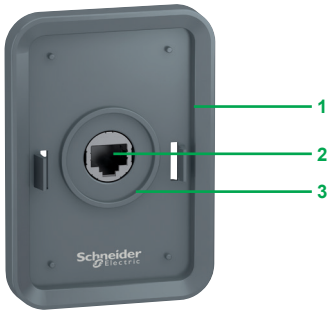


Plain text display terminal mounted on the front of an ATV610U07N4 drive

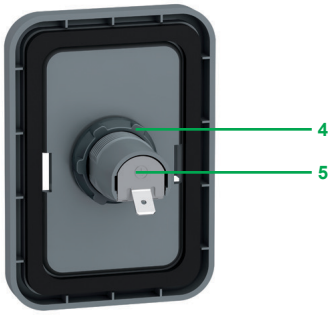
Plain text display terminal

References

Description		Reference	Weight kg/ *lb*
Plain text display terminal		**VW3A1113**	0.200/ *0.441*



Remote mounting kit for mounting plain text display terminal on enclosure door (front panel)



Remote mounting kit for mounting plain text display terminal on enclosure door (rear panel)

Door mounting kit for plain text display terminal

References

Description	Length m/ *ft*	IP degree of protection	Reference	Weight kg/ *lb*
Basic keypad door mounting kit Order with remote-mounting cordset VW3A1104R●●●	–	43	**VW3A1114**	–
Tightening tool for remote mounting kit	–	–	**ZB5AZ905**	0.016/ *0.035*
Remote-mounting cordset equipped with 2 RJ45 connectors	1/ *3.28*	–	**VW3A1104R10**	0.050/ *0.110*
	3/ *9.84*	–	**VW3A1104R30**	0.150/ *0.331*
	5/ *16.40*	–	**VW3A1104R50**	0.250/ *0.551*
	10/ *32.81*	–	**VW3A1104R100**	0.500/ *1.102*



06. Harmony Relays, measurement and control relays

Harmony Relay RXL and RSB electromechanical relays






RSL interface relays

Type		RSL relays		Sockets for RSL relays		Pre-assembled relays/sockets	
Contact		1 CO		–		1 CO	
Current		6 A - standard	6 A - low level	–		6A - Standard	
Connection		PCB pins		Screw connector	Spring terminal	Screw connector	Spring terminal
LED display		Without LED		With LED		With LED	
Control Circuit Voltage	12 VAC/VDC	**RSL1AB4JD**	**RSL1GB4JD**	**RSLZVA1**	**RSLZRA1**	**RSL1PVJU**	**RSL1PRJU**
	24 VAC/VDC	**RSL1AB4BD**	**RSL1GB4BD**	**RSLZVA1**	**RSLZRA1**	**RSL1PVBU**	**RSL1PRBU**
	48 VAC/VDC	**RSL1AB4ED**	**RSL1GB4ED**	**RSLZVA2**	**RSLZRA2**	**RSL1PVEU**	**RSL1PREU**
	60 VAC/VDC	**RSL1AB4ND**	–	**RSLZVA2**	**RSLZRA2**	–	
	110 VAC/VDC	–		**RSLZVA3**	**RSLZRA3**	**RSL1PVFU**	**RSL1PRFU**
	230 VAC/VDC	–		**RSLZVA4**	**RSLZRA4**	**RSL1PVPU**	**RSL1PRPU**





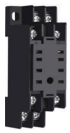

RSB interface relay

Contact		1 CO	1 CO	2 CO
Current		12 A	16 A	8 A
Connection		PCB Type		
Control Circuit Voltage	12 VDC	**RSB1A120JD**	**RSB1A160JD**	**RSB2A080JD**
	24 VDC	**RSB1A120BD**	**RSB1A160BD**	**RSB2A080BD**
	48 VDC	–	–	**RSB2A080ED**
	110 VDC	–	–	**RSB2A080FD**
	24 VAC	**RSB1A120B7**	**RSB1A160B7**	**RSB2A080B7**
	48 VAC	–	–	**RSB2A080E7**
	120 VAC	**RSB1A120F7**	**RSB1A160F7**	**RSB2A080F7**
	220 VAC	**RSB1A120M7**	**RSB1A160M7**	**RSB2A080M7**
	230 VAC	**RSB1A120P7**	**RSB1A160P7**	**RSB2A080P7**
	240 VAC	**RSB1A120U7**	–	–
Screw connector socket		**RSZE1S35M**	**RSZE1S48M**	**RSZE1S48M**
Push-in socket		**RSZE05P**	**RSZE08P**	**RSZE08P**
Pre-mounted product	12 VDC	–	–	**RSB2A080JDPV**
	24 VDC	**RSB1A120BDPV**	**RSB1A160BDPV**	**RSB2A080BDPV**
	24 VAC	**RSB1A120B7PV**	–	**RSB2A080B7PV**
	120 VAC	–	–	**RSB2A080F7PV**
	220 VAC	–	–	–
	230 VAC	**RSB1A120P7PV**	**RSB1A160P7PV**	**RSB2A080P7PV**

Note: *RSB pre-mounted version includes: Relay + Screw connector socket + Protection Module + Clamp + Label, sold in lots of 30 units.*

Harmony Relay RXMLB and RXMAB electromechanical relays






RXM●LB miniature relays

Contact		2 CO		4 CO	
Current		5 A		3 A	
Connection		Flat pins (Faston type)			
LED display		Without LED	With LED	Without LED	With LED
Control Circuit Voltage	12 VDC	**RXM2LB1JD**	**RXM2LB2JD**	**RXM4LB1JD**	**RXM4LB2JD**
	24 VDC	**RXM2LB1BD**	**RXM2LB2BD**	**RXM4LB1BD**	**RXM4LB2BD**
	36 VDC	**–**	**–**	**–**	**RXM4LB2CD**
	48 VDC	**–**	**RXM2LB2ED**	**–**	**RXM4LB2ED**
	110 VDC	**–**	**RXM2LB2FD**	**–**	**RXM4LB2FD**
	24 VAC	**RXM2LB1B7**	**RXM2LB2B7**	**RXM4LB1B7**	**RXM4LB2B7**
	120 VAC	**RXM2LB1F7**	**RXM2LB2F7**	**–**	**RXM4LB2F7**
	230 VAC	**RXM2LB1P7**	**RXM2LB2P7**	**RXM4LB1P7**	**RXM4LB2P7**
Screw connector socket *(1)*		**RXZE1M2C**		**RXZE1M4C**	

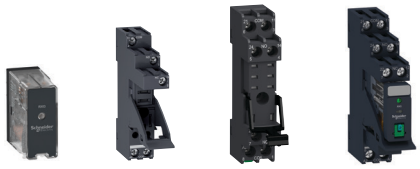


RXM●AB miniature relays

		RXM●AB relays with test button					
Contact		2 CO		3 CO		4 CO	
Current		12 A		10 A		6 A	
Connection		Flat pins (Faston type)					
LED display		Without LED	With LED	Without LED	With LED	Without LED	With LED
Control Circuit Voltage	12 VDC	**RXM2AB1JD**	**RXM2AB2JD**	**RXM3AB1JD**	**RXM3AB2JD**	**RXM4AB1JD**	**RXM4AB2JD**
	24 VDC	**RXM2AB1BD**	**RXM2AB2BD**	**RXM3AB1BD**	**RXM3AB2BD**	**RXM4AB1BD**	**RXM4AB2BD**
	48 VDC	**RXM2AB1ED**	**RXM2AB2ED**	**RXM3AB1ED**	**–**	**RXM4AB1ED**	**RXM4AB2ED**
	60 VDC	**RXM2AB1ND**					**RXM4AB2ND**
	110 VDC	**RXM2AB1FD**	**RXM2AB2FD**	**RXM3AB1FD**	**RXM3AB2FD**	**RXM4AB1FD**	**RXM4AB2FD**
	220 VDC	**–**		**–**		**RXM4AB1MD**	**–**
	24 VAC	**RXM2AB1B7**	**RXM2AB2B7**	**RXM3AB1B7**	**RXM3AB2B7**	**RXM4AB1B7**	**RXM4AB2B7**
	48 VAC	**RXM2AB1E7**	**RXM2AB2E7**	**RXM3AB1E7**	**RXM3AB2E7**	**RXM4AB1E7**	**RXM4AB2E7**
	120 VAC	**RXM2AB1F7**	**RXM2AB2F7**	**RXM3AB1F7**	**RXM3AB2F7**	**RXM4AB1F7**	**RXM4AB2F7**
	230 VAC	**RXM2AB1P7**	**RXM2AB2P7**	**RXM3AB1P7**	**RXM3AB2P7**	**RXM4AB1P7**	**RXM4AB2P7**
	240 VAC	**–**		**–**		**RXM4AB1U7**	**–**
Screw clamp socket *(1)*		**RXZE2M114**		**–**		**RXZE2M114**	
Screw connector socket *(1)*		**RXZE2M114M**		**–**		**RXZE2M114M**	
Screw connector socket *(2)*		**RXZE2S108M**		**RXZE2S111M**		**RXZE2S114M**	
Push-in socket		**RXZE14P**		**RXZE14P**		**RXZE14P**	
Pre-mounted product	24 VDC	**–**	**RXM2AB2BDPVM** *(3)*	**–**		**RXM4AB1BDPVM** *(3)*	**RXM4AB2BDPVM** *(3)*
	24 VAC	**–**	**RXM2AB2B7PVM** *(3)*	**–**		**RXM4AB1B7PVM** *(3)*	**RXM4AB2B7PVM** *(3)*
	230 VAC	**–**	**RXM2AB2P7PVM** *(3)*	**–**		**RXM4AB1P7PVM** *(3)*	**RXM4AB2P7PVM** *(3)*
	24 VDC	**–**	**RXM2AB2BDPVS** *(4)*	**–**		**RXM4AB1BDPVS** *(4)*	**RXM4AB2BDPVS** *(4)*
	24 VAC	**–**	**RXM2AB2B7PVS** *(4)*	**–**		**RXM4AB1B7PVS** *(4)*	**RXM4AB2B7PVS** *(4)*
	230 VAC	**–**	**RXM2AB2P7PVS** *(4)*	**–**		**RXM4AB1P7PVS** *(4)*	**RXM4AB2P7PVS** *(4)*
	24 VDC	**–**	**RXM2AB2BDPVP** *(5)*	**–**		**RXM4AB1BDPVP** *(5)*	**RXM4AB2BDPVP** *(5)*
	24 VAC	**–**	**RXM2AB2B7PVP** *(5)*	**–**		**RXM4AB1B7PVP** *(5)*	**RXM4AB2B7PVP** *(5)*
	230 VAC	**–**	**RXM2AB2P7PVP** *(5)*	**–**		**RXM4AB1P7PVP** *(5)*	**RXM4AB2P7PVP** *(5)*

(1) With mixed contacts.
(2) With separate contacts.
(3) RXM pre-mounted version includes: Relay + Screw connector socket (mixed) + Clamp + Label, sold in lots of 30 units.
(4) RXM pre-mounted version includes: Relay + Screw connector socket (seperate) + Clamp + Label, sold in lots of 30 units.
(5) RXM pre-mounted version includes: Relay + Push-in socket + Clamp, sold in lots of 10 units.

Harmony Relay RXG and RPM electromechanical relays



RXG interface relays

Contact		1CO					2CO				
Current		10A					5A				
Lockable Test Button		Yes	Yes	No	No	No	Yes	Yes	No	No	No
LED indicator		No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
Mechanical indicator		Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No
Relay	6 VDC	–	**RXG12RD**	–	–	–	**RXG21RD**	–	–	–	–
	12 VDC	–	**RXG12JD**	**RXG13JD**	–	–	**RXG21JD**	**RXG22JD**	–	–	–
	24 VDC	**RXG11BD**	**RXG12BD**	**RXG13BD**	**RXG16BD**[2]	**RXG18BD**[2]	**RXG21BD**	**RXG22BD**	**RXG23BD**	**RXG26BD**[2]	**RXG28BD**[2]
	48 VDC	–	**RXG12ED**	–	–	–		**RXG22ED**	–	–	–
	110 VDC	–	**RXG12FD**	–	–	–		**RXG22FD**	–	–	–
	24 VAC	**RXG11B7**	**RXG12B7**	**RXG13B7**	–	–	**RXG21B7**	**RXG22B7**	**RXG23B7**	–	–
	48 VAC	–	**RXG12E7**	–	–	–	**RXG21E7**	**RXG22E7**	**RXG23E7**	–	–
	120 VAC	**RXG11F7**	**RXG12F7**	**RXG13F7**	–	–	**RXG21F7**	**RXG22F7**	**RXG23F7**	–	–
	220 VAC	–		–	–	–		**RXG22M7**	**RXG23M7**	–	–
	230 VAC	**RXG11P7**	**RXG12P7**	**RXG13P7**	**RXG16P7**[2]	**RXG18P7**[2]	**RXG21P7**	**RXG22P7**	**RXG23P7**	**RXG26P7**[2]	**RXG28P7**[2]

RGZ sockets with built-in clamp

Screw Connector, Separate Terminal		**RGZE1S35M**					**RGZE1S48M**				
Push-in, Separate Terminal		**RGZE05P**					**RGZE08P**				
Screw Clamp, Mixed Terminal		**RGZE05E**[1]					**RGZE08E**[1]				

Pre-assembled RXG interface relays with screw connector sockets, clamp and protection module (Diode for DC coil/ Varistor for AC coil), sold in lots of 30 units

	24 VDC		**RXG12BDPV**	**RXG13BDPV**			**RXG21BDPV**	**RXG22BDPV**	**RXG23BDPV**		
	24 VAC		**RXG12B7PV**				**RXG21B7PV**	**RXG22B7PV**			
	230 VAC		**RXG12P7PV**	**RXG13P7PV**			**RXG21P7PV**	**RXG22P7PV**	**RXG23P7PV**		

Pre-assembled RXG interface relays with push-in sockets and clamp, sold in lots of 10 units

	24 VDC		**RXG12BDPVP**	**RXG13BDPVP**			**RXG21BDPVP**	**RXG22BDPVP**	**RXG23BDPVP**		
	24 VAC		**RXG12B7PVP**				**RXG21B7PVP**	**RXG22B7PVP**			
	230 VAC		**RXG12P7PVP**	**RXG13P7PVP**			**RXG21P7PVP**	**RXG22P7PVP**	**RXG23P7PVP**		

Note: *(1) Protection Module not applicable on RGZE0*E sockets*
(2) RXG•6•• and RXG•8•• relays comply to UL Recognised, CE, EAC, RoHS, China RoHS, REACH



RPM power relays (15 A)

Type		RPM relays with test button							
Contact		1 CO		2 CO		3 CO		4 CO	
Current		15 A							
Connection		Flat pins (Faston type)							
LED display		Without LED	With LED	Without LED	With LED	Without LED	With LED	Without LED	With LED
Control Circuit Voltage	12 VDC	–	**RPM12JD**	**RPM21JD**	**RPM22JD**	–	–	–	–
	24 VDC	**RPM11BD**	**RPM12BD**	**RPM21BD**	**RPM22BD**	–	**RPM32BD**	**RPM41BD**	**RPM42BD**
	48 VDC	–	–	–	**RPM22ED**	–	–	–	**RPM42ED**
	110 VDC	–	–	–	–	–	–	–	**RPM42FD**
	24 VAC	**RPM11B7**	**RPM12B7**	**RPM21B7**	**RPM22B7**	–	**RPM32B7**	–	**RPM42B7**
	48 VAC	–	–	–	–	–	–	–	–
	120 VAC	**RPM11F7**	**RPM12F7**	**RPM21F7**	**RPM22F7**	**RPM31F7**	**RPM32F7**	**RPM41F7**	**RPM42F7**
	230 VAC	–	**RPM12P7**	**RPM21P7**	**RPM22P7**	–	**RPM32P7**	**RPM41P7**	**RPM42P7**
Screw connector socket		**RPZF1**		**RPZF2**		**RPZF3**		**RPZF4**	

Harmony Relay SSP1E electromechanical relays



Panel mount SSR

Number of phases		1						
Type of mounting		Panel mounted						
Control input voltage	DC ⎓	4-32V						
Rated input voltage	DC ⎓	5-24V						
Rated Output voltage	AC ∿	24-480V						
Output voltage range	AC ∿	20-505V						
Solid state output type		TRIAC output	SCR output					
Product References		**SSP1A110BDE**	**SSP1A125BDE**	**SSP1A140BDE**	**SSP1A150BDE**	**SSP1A175BDE**	**SSP1A190BDE**	**SSP1A1125BDE**
Page		7						

Harmony Relay SSL and SSP solid state relays





SSL1 Slim Interface Solid State Relays, 1NO contact (DC switching)					
Load current		0.1 A		3.5 A	
Load voltage		1…48 VDC		3...30VDC	1…24 VDC
Type		Relays and sockets for customer assembly *(1)*	Pre-assembled with relay mounted on socket *(2)*	Relays and sockets for customer assembly *(1)*	Pre-assembled with relay mounted on socket *(2)*
Control Voltage	3…12 VDC	**SSL1D101JD**	–	**SSL1D03JD**	**SSL1D03JDPV** **SSL1D03JDPR**
	15…30 VDC	**SSL1D101BD**	**SSL1D101BDPV**	**SSL1D03BD**	**SSL1D03BDPV** **SSL1D03BDPR**

SSL1 Slim Interface Solid State Relays, 1NO contact (Random switching, Zero voltage switching)					
Load current		2 A			
Load voltage		24…280 VAC			
Switching		Random switching		Zero voltage switching	
Type		Relays and sockets for customer assembly *(1)*	Pre-assembled with relay mounted on socket *(2)*	Relays and sockets for customer assembly *(1)*	Pre-assembled with relay mounted on socket *(2)*
Control Voltage	3…12 VDC	–	– –	**SSL1A12JD**	**SSL1A12JDPV** –
	15…30 VDC	**SSL1A12BDR**	**SSL1A12BDRPV** –	**SSL1A12BD**	**SSL1A12BDPV** **SSL1A12BDPR**

SSP1 1-phase Panel Mount Solid State Relays, 1NO contact (DC switching)		
Control voltage		3.5…32 VDC
Load voltage		1…150 VDC
Load current	12 A	**SSP1D412BDT**
	25 A	**SSP1D425BDT**
	40 A	**SSP1D440BDT**

SSP1 1-phase Panel Mount Solid State Relays, 1NO contact (Zero voltage switching)					
Control voltage		3…32 VDC	4…32 VDC	90…280 VAC	
Load voltage		24…300 VAC	48…660 VAC	24…300 VAC	48…660 VAC
Load current	10 A	**SSP1A110BDT**	–	**SSP1A110M7T**	–
	25 A	**SSP1A125BDT** *(3)*	–	**SSP1A125M7T**	–
	50 A	**SSP1A150BDT** *(3)*	**SSP1A450BDT** *(3)*	**SSP1A150M7T**	–
	75 A	**SSP1A175BDT**	**SSP1A475BDT** *(3)*	–	**SSP1A475M7T**
	90 A	–	**SSP1A490BDT** *(3)*	–	**SSP1A490M7T**
	125 A	–	**SSP1A4125BDT** *(3)*	–	**SSP1A4125M7T**

SSP3 3-phase Panel Mount Solid State Relays, 3NO contact (Zero voltage switching)					
Load voltage		42…660 VAC			
Control voltage		4…32 VDC	18...36 VAC	90...140 VAC	90…280 VAC
Load current	25 A	**SSP3A225BDT**	–	–	**SSP3A225P7T**
	50 A	**SSP3A250BDT**	**SSP3A250B7T**	–	**SSP3A250P7T**

SSP3 3-phase Panel Mount Solid State Relays, 3NO contact (Random switching)					
Load voltage		42…660 VAC			
Control voltage		4…32 VDC	18...36 VAC	90...140 VAC	90…280 VAC
Load current	25 A	**SSP3A225BDRT**	–	–	–
	50 A	**SSP3A250BDRT**	–	–	**SSP3A250P7RT**

(1) To be used together with either screw connector socket (SSLZVA1) or spring terminal socket (SSLZRA1), sold in lots of 10 units.
(2) SSL●PV (relay with screw connector socket; SSL1●PR (relay with spring terminal socket), sold in lots of 30 units.
(3) Available in smart diagnostic version with built-in visual indicator and alarm output to enable quick response to unexpected results and correct monitoring of SSR operation; identified by adding S at end of reference (etc. SSP1A125BDS).

Harmony Relay SSM and SSD solid state relays



SSM modular DIN rail solid state relays (DC switching)

Contact		1 NO					
Load current		6 A				12 A	
Load voltage		1…60 VDC		1…100 VDC		1…60 VDC	1…100 VDC
		12 mm				18 mm	
Control Voltage	4...32 VDC	**SSM1D26BD**		**SSM1D36BD**		**SSM1D212BD**	**SSM1D312BD**

SSM modular DIN rail solid state relays (Random switching)

Contact		1 NO				2 NO	
Load current		6 A		12 A		6 A	
Load voltage		24…280 VAC	48…600 VAC	24…280 VAC	48…600 VAC	24…280 VAC	48…600 VAC
		12 mm		18 mm			
Control Voltage	4...32 VDC	**SSM1A16BDR**	**SSM1A36BDR**	**SSM1A112BDR**	**SSM1A312BDR**	**SSM2A16BDR**	–
	18...36 VAC	–	–	–	–	–	–
	90...140 VAC		–	–	–	–	–
	200...265 VAC		–	–	–	–	–

SSM modular DIN rail solid state relays (Zero voltage switching)

Contact		1 NO			
Load current		6 A		12 A	
Load voltage		24…280 VAC	48…600 VAC	24…280 VAC	48…600 VAC
Control Voltage	4...32 VDC	**SSM1A16BD**	**SSM1A36BD**	**SSM1A112BD**	**SSM1A312BD**
	18…36 VDC	**SSM1A16B7**	–	**SSM1A112B7**	–
	90…140 VAC	**SSM1A16F7**	–	–	–
	200…265 VAC	–	–	**SSM1A112P7**	–



SSD modular DIN rail solid state relays, 1NO contact (Zero voltage switching)

Output voltage		48…600 VAC
		22.5 mm
Load current		20 A
Control voltage		4…32 VDC
Configuration	**Relay**	**SSD1A320BDC1**
	Contactor - Screw	**SSD1A320BDC2**
	Contactor - Spring	**SSD1A320BDC3**

SSD modular DIN rail solid state relays, 1NO contact (Random switching)

Output voltage		48…600 VAC						
		22.5 mm				45 mm		
Load current		20 A		35 A		45 A		60 A	
Control voltage		4…32 VDC	90…280 VAC/DC	4…32 VDC	90…280 VAC/DC	4…32 VDC	90…280 VAC/DC	4…32 VDC	90…280 VAC/DC
Configuration	**Relay**	–	–	–	–	–	–	**SSD1A360BDRC1**	–
	Contactor - Screw	–	–	–	–	–	–	–	–
	Contactor - Spring	–	–	–	–	–	–	–	–

SSD modular DIN rail solid state relays, 1NO contact (DC switching)

Output voltage	1…200 VDC	
Control voltage	4…32 VDC	
Frontal width	22.5 mm	
Load current	20 A	30 A
Relay Configuration	**SSD1D520BDC1**	**SSD1D530BDC1**

Harmony Control and Monitoring Relays





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3-phase Monitoring Relay, 1 output

Power Supply		Self-powered *(1)*						
Monitoring functions	Phase Loss	Yes	-	Yes	Yes		Yes	Yes
	Phase loss with voltage regeneration	-	Yes	-	-		-	-
	Phase Sequence	Yes	Yes	Yes	Yes		Yes	Yes
	Asymmetry	-	-	Yes	-		Yes	-
	Overvoltage	-	-	-	-		Yes	-
	Undervoltage	-	-	-	Yes		Yes	-
	Overcurrent and Undercurrent	-	-	-	-		-	Yes
Measuring Range		208…480 VAC						
Product References		**RM17TG00**	**RM17TT00**	**RM17TA00**	**RM17TU00**		**RM17TE00**	**RM35BA10**

3-phase Monitoring Relay, 2 outputs

Power Supply		Self-powered *(1)*							24..240 VAC/DC	
Monitoring functions	Phase Loss	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Phase Sequence	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
	Asymmetry	-	Yes	-	-	Yes	Yes	-	-	-
	Overvoltage	-	-	-	Yes	Yes	Yes	Yes	-	-
	Undervoltage	-	-	Yes	Yes	Yes	Yes	Yes	-	-
	Overfrequency	-	-	-	-	-	Yes	-	-	-
	Underfrequency	-	-	-	-	-	Yes	-	-	-
	Absence of neutral	-	-	-	-	-	-	Yes	-	-
	Motor temperature via PTC probe	-	-	-	-	-	-	-	Yes	-
	Elevator Machine room temperature (Over temperature and under temperature)	-	-	-	-	-	-	-	-	Yes
Measuring Range		208…480 VAC	200…240 VAC 380…480 VAC	200…240 VAC 380…480 VAC	200…240 VAC 380…480 VAC	RM35TF30: 220...480 VAC RM35TF36: 480...690 VAC	208…480 VAC	120…277 VAC	208…480 VAC	208…480 VAC
Product References		**RM17TG20** **RM22TG20**	**RM22TA31** **RM22TA33**	**RM22TU21** **RM22TU23**	**RM22TR31** **RM22TR33**	**RM35TF30** **RM35TF36**	**RMNF22TB30** *(3)*	**RM35UB3N30**	**RM35TM50MW** **RM35TM250MW**	-

1-phase Voltage Control Relay

Power Supply		Self-powered *(1)*			24..240 VAC/DC			380…415 V AC	110…240 VAC/DC
Monitoring functions	Undervoltage	Yes	-	-	-	-	Yes	Yes	-
	Overvoltage	-	-	-	-	Yes	Yes	Yes	-
	Overvoltage or Undervoltage	-	Yes	-	Yes	-	-	-	-
	Overvoltage and Undervoltage in window mode *(4)*	-	-	Yes	-	-	Yes	Yes	Yes
Relay output		1			2				
Measuring Range		Fixed at 165 VAC	9…15 VDC 65…260 VAC/DC 20…80 VAC/DC	65…260 VAC/DC 20…80 VAC/DC	0.05…5 VAC/DC 1…100 VAC/DC 15…600 VAC/DC	0.05…5 VAC/DC 1…100 VAC/DC 15…500 VAC/DC		15…500 VAC/DC	80…300 VAC/DC
Product References		-	**RM17UAS14** **RM17UAS15** **RM17UAS16**	**RM17UBE15** **RM17UBE16**	**RM35UA11MW** **RM35UA12MW** **RM35UA13MW**	**RM22UA21MR** **RM22UA22MR** **RM22UA23MR**	**RM22UA31MR** **RM22UA32MR** **RM22UA33MR**	**RM22UA33MT**	**RM22UB34**

1-phase Current Control Relay

Power Supply		24..240 VAC/DC				380…415 VAC	220...240 VAC	
Monitoring functions	Undercurrent	-	-	-	-	-	Yes	
	Overcurrent	Yes	Yes	-	-	-	Yes	
	Overcurrent or Undercurrent	-	-	Yes	Yes	Yes	Yes	
	Overcurrent and Undercurrent in window mode *(2)*	-	-	-	Yes	Yes	Yes	
Relay output		1	2					
Measuring Range		2…20 A ∿ ⎓	4 mA...1 A ∿ ⎓	2…500 mA 0.15…15 A ∿ ⎓	4 mA...1 A 0.15…15 A ∿ ⎓	0.15…15 A ∿ ⎓	500mA...10A ∿ ⎓	
Product References		**RM17JC00MW**	**RM22JA21MR**	**RM35JA31MW** **RM35JA32MW**	**RM22JA31MR** **RM35JA32MR**	**RM35JA32MT**	**RM17JA12M7**	

Level Control Relay

Type	Resistive Probes			Discrete Sensor
Power Supply	380…415 VAC	24..240 VAC/DC		24..240 VAC/DC
Relay output	1		2	1
Measuring Range	5…100 kΩ		0.25…5 kΩ 5…100 kΩ 0.05…1 kΩ	-
Product References	**RM22LG11MT**	**RM22LG11MR**	**RM22LA32MR** **RM35LM33MW**	**RM35LV14MW**

Other Control Relays for your selection

Application	Frequency control	Speed control	Temperature control for elevator machine rooms
Product Reference	**RM35HZ21FM**	**RM35S0MW**	**RM35ATL0MW**

(1) No need for auxiliary voltage to power the control relay. Energy is obtained directly from the line that the control relay is monitoring.
(2) Temperature Control, low threshold: - 1…11°C; high threshold: 34…46°C.
(3) 3-Phase NFC (Near Field Communication) Control Relay.
(4) Relay checks that the controlled value stays between minimum and a maximum threshold.

Harmony Timer relays



1 Timing relays with screw terminals for DIN rail mounting, 1 contact

Type	1 function	2 functions	2 functions	1 function	Multifunction	Multifunction
Functions *(1)*	A	A, At	L, Li	C	A, At, B, C, H, Ht, D, Di, Ac, Bw	Ad, Ah, N, O, P, Pt, T, Tt, W
Timing range	0.1 s...100 h					
Type of output/current	1 solid state 0.7 A	1 relay output 1 CO/8 A				
Power supply	24...240 VAC/VDC	24 VDC, 24...240 VAC			12...240 VAC/VDC	24 VDC, 24...240 VAC
Frontal width	17.5 mm					
Complete product *(2)*	**RE17LAMW**	**RE17RAMU**	**RE17RLMU**	**RE17RCMU**	**RE17RMMW**	**RE17RMXMU**

2 Timing relays with screw terminals for DIN rail mounting, 2 contacts

Type	3 functions	2 functions	Multifunction
Functions *(1)*	A, At, Aw	C, Ct	A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qgw, Qt, Qtt, Qtw, W, Wt
Timing range	0.05 s...300 h		
Type of output/current	2 CO/8 A		
Power supply	24 VDC, 24...240 VAC		
Frontal width	22.5 mm		
Complete product	**RE22R1MAMR**	**RE22R2CMR**	**RE22R2MYMR**

3 Timing relays with NFC technology for DIN rail mounting,screw terminals, 2 contacts

Type	Multifunction
Functions *(1)*	A, Ac, Ad, Ah, Ak, At, B, Bw, C, D, Di, Dt, Dit, H, Ht, L, Li, Lt, Lit, N, O, P, Pt, Qt, Qtt, Tl, Tt, W
Timing range	0.1 s…999 h
Type of output/current	2 relay outputs, 8A
Power supply	24…240 VDC/VAC
Frontal width	22.5 mm
Complete product	**RENF22R2MMW**

4 Miniature plug-in timing relays for DIN rail mounting

Function *(1)*	A (Delay on energization)					
Timing range	0.1 s…100 h					
Type of output/current	2 CO/5 A			4 CO/5 A		
Power supply	24 VDC	120 VAC	230 VAC	24 VDC	120 VAC	230 VAC
Dimension	21 x 27 mm miniature plug-in					
Complete product	**REXL2TMBD**	**REXL2TMF7**	**REXL2TMP7**	**REXL4TMBD**	**REXL4TMF7**	**REXL4TMP7**
Socket	**RXZE2S108M / RXZE14P**			**RXZE2S114M / RXZE14P**		

5 48 x 48 mm analog plug-in (8-pins) timing relays for DIN rail or front panel mounting

Type	1 function	4 functions	2 functions	4 functions
Functions *(1)*	A	A1, A2, H1, H2	L, Li	A, B, C, Di
Timing range	0.02 s...300 h			
Type of output/current	1 CO/5 A	1 + 1 (instant.)/5 A	2 CO/5 A	
Power supply	24…240 VAC/VDC			
Dimension	48 x 48 mm analog panel-mounted or plug-in			
Complete product	**RE48ATM12MW**	**RE48AMH13MW**	**RE48ACV12MW**	**RE48AML12MW**
Screw connector socket *(4)*	**RUZC2M**		**RUZC3M**	

A: power on-delay relay
Ac: on-delay & off-delay relay *(5)*
Act: on-delay & off-delay relay *(5)* *(6)*
Ad: pulse delayed relay *(5)*
Ah: pulse delayed relay (single cycle) *(5)*
Ak: asymmetrical on-delay & off-delay relay *(5)*
Akt: asymmetrical on-delay & off-delay relay *(5)* *(6)*
At: power on-delay relay *(6)*
Aw: power on-delay relay with retrigger/restart control signal
A1: power on-delay relay (R1 instantaneous, R2 timed)
A2: power on-delay relay (both R1/R2 timed)
B: interval relay *(5)*
Bw: double interval relay *(5)*
C: off-delay relay *(5)*
Ct: off-delay relay *(6)*
D: symmetrical flashing relay (starting pulse-off)
Di: symmetrical flashing relay (starting pulse-on)
Dit: symmetrical flashing relay (starting pulse-on) *(6)*
Diw: symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal
Dt: symmetrical flashing relay (starting pulse-off) *(6)*
Dw: symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal
H: interval relay
He: pulse on de-energization relay
Ht: interval relay *(6)*
Hw: interval relay with retrigger/restart control signal
H1: interval relay (R1 instantaneous, R2 timed)
H2: interval relay (both R1/R2 timed)
K: delay on de-energization relay (without auxiliary supply)
L: asymmetrical flashing relay (starting pulse-off)
Li: symmetrical flashing relay (starting pulse-on)
Lt: symmetrical flashing relay *(6)*
N: safeguard relay
O: delayed safeguard relay
P: pulse delayed relay with fixed pulse length
Pt: pulse delayed relay with fixed pulse length *(6)*
Qc: star-delta timing relay, 1CO output
Qe: star-delta timing relay, 1 NC + 1 NO output & split common
Qg: star-delta timing relay, 2 CO outputs & same common
Qgt: star-delta timing relay, 2 CO outputs & same common *(6)*
Qt: star-delta timing relay, 2 CO outputs & split common
Qtt: star-delta timing relay, 2 CO outputs & split common *(6)*
Tt: retriggerable bistable relay with control signal on
W: interval relay with control signal off
Wt: interval relay with control signal off *(6)*

(1) For more details about functions, please refer to the technical descriptions and schemes on our website www.se.com.
(2) For spring terminal version, order RE17●●●S, like RE17RMMWS.
(3) With separate contacts.
(4) With mixed contacts.
(5) With control signal.
(6) With pause-summation control signal.

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Notes



07. Modicon PLC

Modicon PLC: M310M



Type		M310M motion controller (Book format)			
EtherCAT master	Max. Synchronized axes	8 axes	8 axes	16 axes	16 axes
	Synchronization time	1 ms	1 ms	2 ms	2 ms
	EtherCAT slave	Support up to 127 EtherCAT slaves (including synchronized axes)			
	PDO (Process data object)	Input: 1,486 bytes/Output: 1,486 bytes			
Embedded I/O	Inputs	8x Digital inputs: - High Speed Counters (HSC), 200 kHz (8x single-phase/4x dual-phase)			
	Inputs logic	Sink/Source			
	Outputs	8x Transistor High-speed outputs: - Pulse Width Modulation (PWM): 4x channels (200 kHz) - Frequency Generator (FG): 4x channels (200 kHz) - Pulse Train Output (PTO): 4x channels (200 kHz)			
	Outputs logic	Source	Sink	Source	Sink
	I/O Connection	Removable spring terminal blocks at intervals of 3.81 mm (0.15 in.) (Provided with the controller)			
Encoder axis		2 channels encoder axis (by 8x digital inputs), up to 200 KHz			
CPU		ARM, 2-cores, 1.7 GHz			
Execution speed (Duration for 1000 instructions)		3.6 µs (Assignment of LREAL)			
User program storage		16 Mbytes			
Data storage		20 Mbytes			
Retain Data		512 Kbytes			
Embedded communication	Ethernet	2x RJ45 10/100 Mbps (switch mode/independent mode)			
	Serial link	1x RS-485 (isolated spring terminal block)			
	EtherCAT	1x RJ45 connector, 100 Mbps			
	CANopen	(Optional)			
I/O expansion	Local and remote I/O	7x modules Modicon TM3 + 7x modules Modicon TM3 (associated Transmitter and Receiver modules)			
	Distributed I/O	EtherCAT Bus coupler Modicon TM3 EtherNet/IP Bus coupler Modicon TM3 Modbus Bus Coupler Modicon TM3			
	Optional cartridges	2x cartridge slots (Serial line, CANopen Master)			
Other interfaces	USB	USB 2.0 Type-C			
	SD card	Micro SD Card, FAT32, 32 GB			
Real Time Clock		± 60 s/month @ 25°C (need battery)			
Power supply voltage		24 Vdc (20.4... 28.8 Vdc), support short circuit and reverse connection protection			
Environmental	Ambient operating temperature	Horizontal installation: -20...+55°C *(-4...+131°F)* Vertical installation: -20...+45°C *(-4...+113°F)*			
	Humidity	5%...95%, non-condensing			
Format	Dimensions (L x W x H)	60 x 100 x 85 mm *(2.36 x 3.94 x 3.35 in.)*			
	Mounting	With Clip-on lock for 35 mm *(1.38 in.)* DIN rail			
Configuration Software		EcoStruxure Motion Expert *(1)*			
Reference		**TM310MM25ECT16T**	**TM310MM25ECT16U**	**TM310MM35ECT16T**	**TM310MM35ECT16U**

(1) EcoStruxure Motion Expert is part of EcoStruxure Machine Expert Software.

Modicon PLC: M310M



Type		M310 motion controller (Brick format)		
EtherCAT master	Max. Synchronized axes	16 axes	32 axes	64 axes
	Synchronization time	0.25 ms	0.5 ms	1 ms
	EtherCAT slave	Support up to 256 EtherCAT slaves (including synchronized axes)		
	PDO (Process data object)	Input: 5,696 bytes/Output: 5,696 bytes		
Embedded I/O	Inputs	18x Digital inputs: - 4x single-phase High Speed Counters (HSC), 200 kHz - 6x touch probes - 8x fast digital inputs		
	Inputs logic	Sink/Source		
	Outputs	8x Transistor fast outputs		
	Outputs logic	Source	Source	Source
	I/O Connection	Removable terminal blocks with pitch size of 5.08 mm (0.2 in) (Provided with the controller)		
Encoder axis		1 Master encoder (Sub-D9 contact female connector), incremental,4 MHz @ 5 Vdc 2 Incremental encoders (removable screw terminal blocks), 500 kHz @ 5 V and 200 kHz @ 24 Vdc		
CPU		X86, 4-cores, 2.0 GHz		
Execution speed (Duration for 1000 instructions)		3.3 µs (Assignment of LREAL)		
User program storage		128 Mbytes		
Data storage		128 Mbytes		
Retain Data		4 Mbytes		
Embedded communication	Ethernet	2x RJ45 10/100 Mbps, Self Adaptation		
	Serial link	1x RS-232 (Sub-D9 connector) 1x RS-485 (isolated screw terminal block)		
	EtherCAT	1x RJ45 connector, 100 Mbps		
	CANopen	1x Sub-D9 connector, 1 Mbps		
I/O expansion	Local and remote I/O	–		
	Distributed I/O	EtherCAT Bus coupler Modicon TM3 EtherNet/IP Bus coupler Modicon TM3 Modbus Bus Coupler Modicon TM3 CANopen Bus Coupler Modicon TM3/TM5		
	Optional cartridges	–		
Other interfaces	USB	USB 2.0 Type-A		
	SD card	-		
Real Time Clock		±30 s/month @ 25°C		
Power supply voltage		24 Vdc (20.4... 28.8 Vdc), support short circuit and reverse connection protection		
Environmental	Ambient operating temperature	Horizontal installation: 0...+55°C *(32...+131°F)* Vertical installation: 0...+45°C *(32…+113°F)*		
	Humidity	5%... 90%, non-condensing		
Format	Dimensions (L x W x H)	210 x 114 x 70 mm *(8.27 x 4.49 x 2.75 in.)*		
	Mounting	With Clip-on lock for 35 mm *(1.38 in.)* DIN rail - Panel mounting		
Configuration Software		EcoStruxure Motion Expert *(1)*		
Reference		**TM310M35ECT26T**	**TM310M45ECT26T**	**TM310M55ECT26T**

(1) EcoStruxure Motion Expert is part of EcoStruxure Machine Expert Software.



Type		**Modicon TM3 EtherCAT Bus Coupler**
Applications		**Managing communication on EtherCAT fieldbus**
Compatibility		■ Modicon M310 motion controller
Bus or network type	Protocols	EtherCAT
	Connector type	2 isolated switched EtherCATports
	terminal type	RJ45 female port
	Data rate	100 Mbit/s
Configuration of network/bus		255 EtherCAT bus couplers max. *(1)*
Configuration of I/O		448 digital I/O max. 112 analog I/O max.
Certifications & standards		CE, EN 61131- 2, cULus, UL/CSA 61010-1, UL/CSA 61010-2-201
Supply voltage		24 V ⎓ power supply
Bus coupler module		**TM3BCECT**

(1) This depends on the specifications of the EtherCAT master.



08. Motion Control

Lexium 18P/18E servo drive and BCH18 servo motor combinations



Size 1



Size 2



Size 3

Lexium 18 servo drive and BCH18 servo motor combinations

Servo drive reference *(1)*	Servo motor reference *(2)*	Nominal Power		Flange size		Velocity		Current		Torque		Motor Inertia		Moment of inertia
						Nominal	Max.	Nominal	Max.	Nominal	Peak	Without holding brake	With holding brake	
		kW	*hp*	mm	*in*	rpm	rpm	A	A	N-m	N-m	kgcm²	kgcm²	
Single-phase supply voltage: 220Vac, 200Vac -15%...240Vac +10%														
LXM18●●U01M2X *(Size 1)*	BCH18LBA533●●5C	**0.05**	*0.06*	40	*1.57*	3000	6000	1.1	3.4	0.16	0.48	0.02	0.027	Low
	BCH18MBA533●●5C	**0.05**	*0.06*	40	*1.57*	3000	6000	1.1	3.9	0.16	0.56	0.04	0.046	Medium
	BCH18LB0133●●5C	**0.10**	*0.13*	40	*1.57*	3000	6000	1.1	3.4	0.32	0.96	0.030	0.036	Low
	BCH18MB0133●●5C	**0.10**	*0.13*	40	*1.57*	3000	6000	1.1	3.9	0.32	1.12	0.07	0.076	Medium
	BCH18MD0133●●5C	**0.10**	*0.13*	60	*2.36*	3000	6000	1.1	3.4	0.32	0.96	0.16	0.22	Medium
LXM18●●U02M2X *(Size 1)*	BCH18LD0233●●5C	**0.20**	*0.27*	60	*2.36*	3000	6000	1.6	5.1	0.64	1.92	0.15	0.21	Low
	BCH18MD0233●●5C	**0.20**	*0.27*	60	*2.36*	3000	6000	1.6	5.9	0.64	2.24	0.268	0.328	Medium
	BCH18MF0233●●5C	**0.20**	*0.27*	80	*3.15*	3000	6000	1.6	5.1	0.64	1.92	0.55	0.68	Medium
LXM18●●U04M2X *(Size 1)*	BCH18LD0433●●5C	**0.40**	*0.54*	60	*2.36*	3000	6000	2.8	8.5	1.27	3.81	0.25	0.31	Low
	BCH18MD0433●●5C	**0.40**	*0.54*	60	*2.36*	3000	6000	2.6	9.3	1.27	4.45	0.478	0.54	Medium
	BCH18MF0433●●5C	**0.40**	*0.54*	80	*3.15*	3000	6000	2.6	9.3	1.27	4.45	1.19	1.33	Medium
LXM18●●U07M2X *(Size 2)*	BCH18LF0733●●5C	**0.75**	*1.01*	80	*3.15*	3000	6000	5.1	15.6	2.39	7.17	0.78	0.93	Low
	BCH18MF0733●●5C	**0.75**	*1.02*	80	*3.15*	3000	6000	4.9	17.3	2.39	8.37	1.79	1.9	Medium
LXM18●●U10M2X *(Size 2)*	BCH18MM0813●●6C	**0.85**	*1.15*	130	*5.12*	1500	3000	7.3	22	5.39	16.17	14	14.7	Medium
	BCH18MM1023●●6C	**1.00**	*1.34*	130	*5.12*	2000	3000	6	18.3	4.77	14.31	14	14.7	Medium
	BCH18LF1033●●5C	**1.00**	*1.34*	80	*3.15*	3000	6000	6.8	21.5	3.18	9.54	0.994	1.12	Low
	BCH18MF1033●●5C	**1.00**	*1.34*	80	*3.15*	3000	6000	6.5	22.8	3.18	11.1	2.16	2.32	Medium
	BCH18LH1033●●6C	**1.00**	*1.34*	100	*3.94*	3000	6000	7.3	22	3.18	9.54	1.43	1.53	Low
LXM18●●U15M2X *(Size 2)*	BCH18MM1313●●6C	**1.30**	*1.76*	130	*5.12*	1500	3000	9.6	29.2	8.34	25	20.88	21.54	Medium
	BCH18MM1523●●6C	**1.50**	*2.01*	130	*5.12*	2000	3000	8.24	25	7.16	21.48	20.88	21.54	Medium
	BCH18LH1533●●6C	**1.50**	*2.01*	100	*3.94*	3000	6000	9.2	28.8	4.77	14.3	2.09	2.21	Low
Three-phase supply voltage: 220Vac, 200Vac -15%...240Vac +10%														
LXM18●●U20M3X *(Size 3)*	BCH18MM1813●●6C	**1.80**	*2.44*	130	*5.12*	1500	3000	14	42	11.5	32.2	27.79	28.45	Medium
	BCH18MM2023●●6C	**2.00**	*2.68*	130	*5.12*	2000	3000	11.7	36	9.55	28.65	27.79	28.45	Medium
	BCH18LH2033●●6C	**2.00**	*2.68*	100	*3.94*	3000	6000	13.2	41	6.37	19.1	2.64	2.74	Low
LXM18●●U30M3X *(Size 3)*	BCH18MR2413●●6C	**2.40**	*3.26*	180	*7.09*	1500	3000	18.6	56	15.1	45.1	46.32	51.1	Medium
	BCH18MR3013●●6C	**3.00**	*4.02*	180	*7.09*	1500	3000	18.9	54.6	19.1	55.39	46.32	51.1	Medium
	BCH18LM3033●●6C	**3.00**	*4.02*	130	*5.12*	3000	6000	18.6	56	9.8	29.4	7.63	8.3	Low

Lexium 18P/18E servo drives

To order a Lexium 18 servo drive, make up the reference as follows

Lexium 18 AC servo drive			LXM18	●	●	●●●	●●	●
Product Line	Pulse train input			**P**				
	EtherCAT			**E**				
Communication interface	I/O interface with PTI only				**C**			
	I/O interface with PTI, analog and Modbus RTU				**D**			
	EtherCAT with Digital I/O interface				**N**			
	EtherCAT with Digital I/O interface, and STO function				**S**			
Power	Size 1	0.1 kW/*0.13 hp*				**U01**		
		0.2 kW/*0.27 hp*				**U02**		
		0.4 kW/*0.54 hp*				**U04**		
	Size 2	0.75 kW/*1.01 hp*				**U07**		
		1 kW/*1.34 hp*				**U10**		
		1.5 kW/*2.01 hp*				**U15**		
	Size 3	2.0 kW/*2.68 hp*				**U20**		
		3.0 kW/*4.02 hp*				**U30**		
Power Supply Voltage	Single phase, 220Vac						**M2**	
	Three phases, 220Vac						**M3**	
Special function	No built-in EMC filter							**X**



Dimensions, Weight

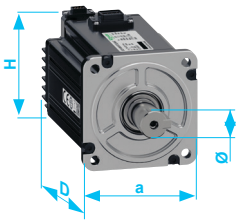
Servo drive reference	Housing	Dimensions						Weight	
		H (height)		W (width)		D (depth)		kg	*lb*
		mm	*in*	mm	*in*	mm	*in*		
LXM18●●U01M2X **LXM18●●U02M2X** **LXM18●●U04M2X**	Size 1	155.5	*6.12*	48	*1.89*	166.5	*6.55*	1.19	*2.62*
LXM18●●U07M2X **LXM18●●U10M2X** **LXM18●●U15M2X**	Size 2	155.5	*6.12*	78	*3.07*	166.5	*6.55*	1.79	*3.95*
LXM18●●U20M3X **LXM18●●U30M3X**	Size 3	208	*8.19*	93	*3.66*	191.8	*7.55*	2.89	*6.37*

BCH18 servo motors

To order a BCH18 servo motor, make up the reference as follows:

BCH18		●	●	●●	●	●	●	●	●	C
Inertia	Low inertia	**L**								
	Medium inertia	**M**								
Flange size	40 mm *(1.57 in)* – Shaft diameter 8 mm *(0.31 in)*		**B**							
	60 mm *(2.36 in)* – Shaft diameter 8 mm *(0.31 in)* or 14 mm *(0.55 in)*		**D**							
	80 mm *(3.15 in)* – Shaft diameter 14 mm *(0.55 in)* or 19 mm *(0.75 in)*		**F**							
	100 mm *(3.94 in)* – Shaft diameter 22 mm *(0.87 in)*		**H**							
	130 mm *(5.12 in)* – Shaft diameter 22 mm *(0.87 in)*, 24 mm *(0.94 in)* or 28 mm *(1.102 in)*		**M**							
	180 mm *(7.09 in)* – Shaft diameter 35 mm (1.38 in)		**R**							
Nominal power	50 W *(0.06 hp)*			**A5**						
	100 W *(0.13 hp)*			**01**						
	200 W *(0.16 hp)*			**02**						
	400 W *(0.53 hp)*			**04**						
	750 W *(1.00 hp)*			**07**						
	850 W *(1.13 hp)*			**08**						
	1 kW *(1.34 hp)*			**10**						
	1.3 kW *(1.74 hp)*			**13**						
	1.5 kW *(2.01 hp)*			**15**						
	1.8 kW *(2.41 hp)*			**18**						
	2.0 kW *(2.68 hp)*			**20**						
	2.4 kW *(3.22 hp)*			**24**						
	3.0 kW *(4.02 hp)*			**30**						
Winding type (Power supply 220Vac)	Optimized in terms of torque (1500 rpm)				**1**					
	Optimized in terms of torque and speed of rotation (2000 rpm)				**2**					
	Optimized in terms of speed of rotation (3000 rpm)				**3**					
Shaft end	Parallel keyed shaft (shaft & housing IP 67)					**3**				
Encoder	23-bit optic incremental encoder						**2**			
	23-bit optic multi-turn absolute encoder						**C**			
Holding brake	Without holding brake							**A**		
	With holding brake							**F**		
Connections	Micro plastic connectors								**5**	
	Military connectors								**6**	
Voltage	220 Vac									**C**

BCH18 servo motors



Servo motor *(1)*	Continuous power		Dimensions (overall) Ø (shaft)		a (flange)		H (heigth)		D (depth) Without brake		D (depth) With brake		Weight Without brake		Weight With brake	
	W	*hp*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	kg	*lb*	kg	*lb*
BCH18LBA533●●5C	50	*0.06*	8	*0.31*	40	*1.57*	50.75	*2.00*	74.90	*2.95*	118.90	*4.68*	0.35	*0.77*	0.60	*1.32*
BCH18MBA533●●5C	50	*0.06*	8	*0.31*	40	*1.57*	50.75	*2.00*	75.20	*2.96*	118.90	*4.68*	0.26	*0.57*	0.52	*0.57*
BCH18LB0133●●5C	100	*0.13*	8	*0.31*	40	*1.57*	50.75	*2.00*	83.80	*3.30*	127.80	*5.03*	0.41	*0.90*	0.65	*1.43*
BCH18MB0133●●5C	100	*0.13*	8	*0.31*	40	*1.57*	50.75	*2.00*	89.10	*3.51*	132.80	*5.23*	0.40	*0.88*	0.69	*1.52*
BCH18MD0133●●5C	100	*0.13*	8	*0.31*	60	*2.36*	68.60	*2.70*	69.20	*2.72*	108.70	*4.28*	0.65	*1.43*	1.05	*2.31*
BCH18LD0233●●5C	200	*0.27*	14	*0.55*	60	*2.36*	68.60	*2.70*	76.70	*3.02*	116.20	*4.57*	0.85	*1.87*	1.20	*2.65*
BCH18MD0233●●5C	200	*0.27*	14	*0.55*	60	*2.36*	68.60	*2.70*	77.90	*3.07*	117.40	*4.62*	0.85	*1.87*	1.25	*2.76*
BCH18MF0233●●5C	200	*0.27*	14	*0.55*	80	*3.15*	88.60	*3.49*	80.20	*3.16*	119.00	*4.69*	1.35	*2.98*	2.10	*4.63*
BCH18LD0433●●5C	400	*0.53*	14	*0.55*	60	*2.36*	68.60	*2.70*	92.80	*3.65*	132.30	*5.21*	1.15	*2.54*	1.55	*3.42*
BCH18MD0433●●5C	400	*0.53*	14	*0.55*	60	*2.36*	68.60	*2.70*	96.10	*3.78*	135.60	*5.34*	1.15	*2.54*	1.60	*3.53*
BCH18MF0433●●5C	400	*0.53*	14	*0.55*	80	*3.15*	88.60	*3.49*	98.00	*3.86*	136.80	*5.39*	1.95	*4.30*	2.70	*5.95*
BCH18LF0733●●5C	750	*1.01*	19	*0.75*	80	*3.15*	88.60	*3.49*	105.30	*4.15*	144.10	*5.67*	2.30	*5.07*	3.10	*6.83*
BCH18MF0733●●5C	750	*1.01*	19	*0.75*	80	*3.15*	88.60	*3.49*	113.70	*4.48*	152.50	*6.00*	2.50	*5.51*	3.25	*7.17*
BCH18MM0813●●6C	850	*1.13*	22	*0.87*	130	*5.12*	182.40	*7.18*	145.50	*5.73*	188.50	*7.42*	6.85	*5.10*	8.35	*18.41*
BCH18MM1023●●6C	1000	*1.34*	22	*0.87*	130	*5.12*	182.40	*7.18*	145.90	*5.74*	188.50	*7.42*	6.85	*5.10*	8.35	*18.41*
BCH18LH1033●●6C	1000	*1.34*	22	*0.87*	100	*3.94*	152.20	*5.99*	140.00	*5.51*	180.50	*7.11*	3.60	*7.94*	4.50	*9.92*
BCH18LF1033●●5C	1000	*1.34*	19	*0.75*	80	*3.15*	88.60	*3.49*	118.50	*4.67*	157.30	*6.19*	2.80	*6.17*	3.55	*7.83*
BCH18MF1033●●5C	1000	*1.34*	19	*0.75*	80	*3.15*	88.60	*3.49*	128.70	*5.07*	167.50	*6.59*	3.00	*6.61*	3.75	*8.27*
BCH18MM1313●●6C	1300	*1.74*	22	*0.87*	130	*5.12*	182.40	*7.18*	170.90	*6.73*	213.50	*8.41*	9.00	*19.84*	10.60	*23.37*
BCH18MM1523●●6C	1500	*2.01*	22	*0.87*	130	*5.12*	182.40	*7.18*	170.90	*6.73*	213.50	*8.41*	9.00	*19.84*	10.60	*23.37*
BCH18LH1533●●6C	1500	*2.01*	22	*0.87*	100	*3.94*	152.20	*5.99*	159.00	*6.26*	199.50	*7.85*	4.50	*9.92*	5.40	*11.90*
BCH18MM1813●●6C	1800	*2.41*	24	*0.94*	130	*5.12*	182.40	*7.18*	195.90	*7.71*	238.50	*9.39*	11.20	*24.69*	12.70	*28.00*
BCH18MM2023●●6C	2000	*2.68*	22	*0.87*	130	*5.12*	182.40	*7.18*	195.90	*7.71*	238.50	*9.39*	11.20	*24.69*	12.70	*28.00*
BCH18LH2033●●6C	2000	*2.68*	22	*0.87*	100	*3.94*	152.20	*5.99*	174.00	*6.85*	214.50	*8.44*	5.30	*11.68*	6.20	*13.67*
BCH18MR2413●●6C	2400	*3.22*	35	*1.38*	180	*7.09*	231.20	*9.10*	193.00	*7.60*	245.20	*9.65*	18.00	*39.68*	22.45	*49.49*
BCH18MR3013●●6C	3000	*4.02*	35	*1.38*	180	*7.09*	231.20	*9.10*	193.00	*7.60*	245.20	*9.65*	18.00	*39.68*	22.45	*49.49*
BCH18LM3033●●6C	3000	*4.02*	28	*110*	130	*5.12*	182.40	*7.18*	208.90	*8.22*	251.50	*9.90*	10.30	*22.71*	11.80	*26.01*

*(1) ●● Depending on Encoder - replace first ● with **2** or **C**, and on the Holding brake - replace second ● with **A** or **F**, See Type code above.*

BCH servo motors and Lexium 28 servo drives combinations



BCH2 servo motors and Lexium 28 servo drives combinations

Available power output		Nominal speed of rotation	Nominal torque		Maximum peak torque		Servo motor reference	Inertia (without holding brake)	Motor inertia type	Servo drive reference		
										Fielbus interface		
kW	*hp*	rpm	Nm	*ft lbf*	Nm	*ft lbf*		kgcm²		CANopen	Ethercat	Sercos 3
Single-phase supply voltage: 200/240 VAC												
0.05	*0.067*	3,000	0.16	*0.11*	0.48	*0.35*	**BCH2MBA53●●●5C**	0.054	Medium	**LXM28AUA5M3X**	**LXM28EUA5M3X**	**LXM28SUA5M3X**
0.1	*0.13*	3,000	0.32	*0.23*	0.96	*0.70*	**BCH2MB013●●●5C**	0.075	Medium	**LXM28AU01M3X**	**LXM28EU01M3X**	**LXM28SU01M3X**
0.2	*0.26*	3,000	0.64	*0.47*	1.92	*1.41*	**BCH2LD023●●●5C**	0.16	Low	**LXM28AU02M3X**	**LXM28EU02M3X**	**LXM28SU02M3X**
0.3	*0.41*	1,000	2.86	*2.10*	8.59	*6.33*	**BCH2MM031●●●6C**	6.63	Medium			
0.4	*0.53*	3,000	1.27	*0.93*	3.81	*2.81*	**BCH2LD043●●●5C**	0.27	Low	**LXM28AU04M3X**	**LXM28EU04M3X**	**LXM28SU04M3X**
0.4	*0.53*	3,000	1.27	*0.93*	3.81	*2.81*	**BCH2LF043●●●5C**	0.67	Low			
0.5	*0.67*	2,000	2.39	*1.76*	7.16	*5.28*	**BCH2MM052●●●6C**	6.63	Medium			
0.6	*0.80*	1,000	5.73	*4.22*	17.19	*12.67*	**BCH2MM061●●●6C**	6.63	Medium			
0.75	*1.00*	3,000	2.39	*1.76*	7.16	*5.28*	**BCH2HF073●●●5C**	1.54	High	**LXM28AU07M3X**	**LXM28EU07M3X**	**LXM28SU07M3X**
0.75	*1.00*	3,000	2.39	*1.76*	7.16	*5.28*	**BCH2LF073●●●5C**	1.19	Low			
0.85	*1.13*	1,500	5.39	*3.97*	13.8	*10.17*	**BCH2MM081●●●6C**	13.5	Medium			
0.9	*1.21*	1,000	8.59	*6.33*	25.77	*19.01*	**BCH2MM091●●●6C**	9.7	Medium			
1	*1.34*	3,000	3.18	*2.34*	9.54	*7.03*	**BCH2LH103●●●6C**	2.4	Low	**LXM28AU10M3X**	**LXM28EU10M3X**	**LXM28SU10M3X**
1	*1.34*	2,000	4.77	*3.51*	14.3	*10.54*	**BCH2MM102●●●6C**	6.63	Medium			
1	*1.34*	2,000	4.77	*3.51*	14.3	*10.54*	**BCH2HM102●●●6C**	8.53	High			
1.5	*2.01*	2,000	7.16	*5.28*	21.48	*15.84*	**BCH2MM152●●●6C**	9.7	Medium	**LXM28AU15M3X**	**LXM28EU15M3X**	**LXM28SU15M3X**
3 phase supply voltage: 200/240 VAC												
0.05	*0.067*	3,000	0.16	*0.11*	0.48	*0.35*	**BCH2MBA53●●●5C**	0.054	Medium	**LXM28AUA5M3X**	**LXM28EUA5M3X**	**LXM28SUA5M3X**
0.1	*0.13*	3,000	0.32	*0.23*	0.96	*0.70*	**BCH2MB013●●●5C**	0.075	Medium	**LXM28AU01M3X**	**LXM28EU01M3X**	**LXM28SU01M3X**
0.2	*0.26*	3,000	0.64	*0.47*	1.92	*1.41*	**BCH2LD023●●●5C**	0.16	Low	**LXM28AU02M3X**	**LXM28EU02M3X**	**LXM28SU02M3X**
0.3	*0.41*	1,000	2.86	*2.10*	8.59	*6.33*	**BCH2MM031●●●6C**	6.63	Medium			
0.4	*0.53*	3,000	1.27	*0.93*	3.81	*2.81*	**BCH2LD043●●●5C**	0.27	Low	**LXM28AU04M3X**	**LXM28EU04M3X**	**LXM28SU04M3X**
0.4	*0.53*	3,000	1.27	*0.93*	3.81	*2.81*	**BCH2LF043●●●5C**	0.67	Low			
0.5	*0.67*	2,000	2.39	*1.76*	7.16	*5.28*	**BCH2MM052●●●6C**	6.63	Medium			
0.6	*0.80*	1,000	5.73	*4.22*	17.19	*12.67*	**BCH2MM061●●●6C**	6.63	Medium			
0.75	*1.00*	3,000	2.39	*1.76*	7.16	*5.28*	**BCH2HF073●●●5C**	1.54	High	**LXM28AU07M3X**	**LXM28EU07M3X**	**LXM28SU07M3X**
0.75	*1.00*	3,000	2.39	*1.76*	7.16	*5.28*	**BCH2LF073●●●5C**	1.19	Low			
0.85	*1.13*	1,500	5.39	*3.97*	13.8	*10.17*	**BCH2MM081●●●6C**	13.5	Medium			
0.9	*1.21*	1,000	8.59	*6.33*	25.77	*19.01*	**BCH2MM091●●●6C**	9.7	Medium			
1	*1.34*	3,000	3.18	*2.34*	9.54	*7.03*	**BCH2LH103●●●6C**	2.4	Low	**LXM28AU10M3X**	**LXM28EU10M3X**	**LXM28SU10M3X**
1	*1.34*	2,000	4.77	*3.51*	14.3	*10.54*	**BCH2MM102●●●6C**	6.63	Medium			
1	*1.34*	2,000	4.77	*3.51*	14.3	*10.54*	**BCH2HM102●●●6C**	1.54	High			
1.5	*2.01*	2,000	7.16	*5.28*	21.48	*15.84*	**BCH2MM152●●●6C**	9.7	Medium	**LXM28AU15M3X**	**LXM28EU15M3X**	**LXM28SU15M3X**
2.0	*2.68*	3,000	6.37	*4.69*	19.1	*14.08*	**BCH2LH203●●●6C**	4.28	Low			
2.0	*2.68*	2,000	9.55	*7.04*	28.65	*21.13*	**BCH2MM202●●●6C**	13.5	Medium	**LXM28AU20M3X**	**LXM28EU20M3X**	**LXM28SU20M3X**
2.0	*2.68*	2,000	9.55	*7.04*	28.65	*21.13*	**BCH2MR202●●●6C**	26.5	Medium			
2.0	*2.68*	2,000	9.55	*7.04*	28.65	*21.13*	**BCH2HR202●●●6C**	34.67	High			
3.0	*4.02*	1,500	19.1	*14.08*	57.29	*42.25*	**BCH2MR301●●●6C**	53.56	Medium	**LXM28AU30M3X**	**LXM28EU30M3X**	**LXM28SU30M3X**
3.0	*4.02*	2,000	14.32	*10.56*	42.97	*31.69*	**BCH2MR302●●●6C**	53.56	Medium			
3.5	*4.69*	2,000	16.7	*12.31*	50.3	*37.09*	**BCH2MR352●●●6C**	53.56	Medium	**LXM28AU45M3X**	**LXM28EU45M3X**	**LXM28SU45M3X**
4.5	*6.03*	1,500	28.65	*21.13*	71.62	*52.82*	**BCH2MR451●●●6C**	73.32	Medium			

Lexium 28 servo drives

To order a Lexium 28 servo drive, make up the reference as follows:

Example		*L*	*X*	*M*	*2*	*8*	*A*	*U*	*A*	*5*	*M*	*3*	*X*
Lexium 28 AC servo drive		**L**	**X**	**M**	**2**	**8**							
Interface	CANopen and CANmotion fieldbus						**A**						
	EtherCAT fieldbus						**E**						
	Sercos III fieldbus						**S**						
Power	50 W *(0.067 hp)*							**U**	**A**	**5**			
	100 W *(0.13 hp)*							**U**	**0**	**1**			
	200 W *(0.26 hp)*							**U**	**0**	**2**			
	400 W *(0.53 hp)*							**U**	**0**	**4**			
	750 W *(1.00 hp)*							**U**	**0**	**7**			
	1 kW *(1.34 hp)*							**U**	**1**	**0**			
	1.5 kW *(2.01 hp)*							**U**	**1**	**5**			
	2 kW *(2.68 hp)*							**U**	**2**	**0**			
	3 kW *(4.02 hp)*							**U**	**3**	**0**			
	4.5 kW *(6.03 hp)*							**U**	**4**	**5**			
Supply voltage	200…240 VAC *(1)*										**M**	**3**	**X**

(1) Lexium 28 servo drives are delivered without EMC filter

Dimensions and weight

Servo drive reference	Housing size	Dimensions (overall)		Weight
		Width x Height x Depth (W x H x D)		kg/ *lb*
		mm	*in.*	
Single-phase or 3 phase supply voltage: 200/240 VAC				
LXM28AUA5M3X **LXM28EUA5M3X** **LXM28SUA5M3X** **LXM28AU01M3X** **LXM28EU01M3X** **LXM28SU01M3X** **LXM28AU02M3X** **LXM28EU02M3X** **LXM28SU02M3X** **LXM28AU04M3X** **LXM28EU04M3X** **LXM28SU04M3X** **LXM28AU07M3X** **LXM28EU07M3X** **LXM28SU07M3X**	Size 1	55 x 150 x 146	*2.17 x 5.91 x 5.75*	1.000 / *2.190*
LXM28AU10M3X **LXM28EU10M3X** **LXM28SU10M3X** **LXM28AU15M3X** **LXM28EU15M3X** **LXM28SU15M3X**	Size 2	55 x 150 x 170	*2.17 x 5.91 x 6.69*	1.200/ *2.630*
LXM28AU20M3X **LXM28EU20M3X** **LXM28SU20M3X**	Size 3	62 x 170 x 184	*2.44 x 6.69 x 7.24*	1.700/ *3.720*
LXM28AU30M3X **LXM28EU30M3X** **LXM28SU30M3X** **LXM28AU45M3X** **LXM28EU45M3X** **LXM28SU45M3X**	Size 4	116 x 234 x 186	*4.56 x 9.21 x 7.32*	3.200/ *7.010*

BCH servo motors





BCH2 servo motors

To order a BCH2 servo motor, make up the reference as follows:

Brushless servo motor	B	C	H	2	●	●	●●	●	●	●	●	●	C
Inertia	Low inertia				**L**								
	Medium inertia				**M**								
	High inertia				**H**								
Flange size	40 mm (*1.58 in.*)					**B**							
	60 mm (*2.36 in.*)					**D**							
	80 mm (*3.15 in.*)					**F**							
	100 mm (*3.94 in.*)					**H**							
	130 mm (*5.12 in.*)					**M**							
	180 mm (*7.08 in.*)					**R**							
Rated output	50 W *(0.067 hp)*						**A5**						
	100 W *(0.13 hp)*						**01**						
	200 W *(0.26 hp)*						**02**						
	300 W *(0.41 hp)*						**03**						
	400 W *(0.53 hp)*						**04**						
	500 W *(0.67 hp)*						**05**						
	600 W *(0.80 hp)*						**06**						
	750 W *(1.00 hp)*						**07**						
	850 W *(1.13 hp)*						**08**						
	1 kW *(1.34 hp)*						**10**						
	1.5 kW *(2.01 hp)*						**15**						
	2 kW *(2.68 hp)*						**20**						
	3 kW *(4.02 hp)*						**30**						
	3.5 kW *(4.69 hp)*						**35**						
	4.5 kW *(6.03 hp)*						**45**						
Nominal speed	1000/1500 rpm							**1**					
	2000 rpm							**2**					
	3000 rpm							**3**					
Shaft end	Smooth shaft (shaft IP 54; housing IP 65) *(1)*								**0**				
	Keyed shaft (shaft IP 54; housing IP 65) *(1)*								**1**				
	Smooth shaft (shaft & housing IP 65)								**2**				
	Keyed shaft (shaft & housing IP 65)								**3**				
Encoder	High resolution single-turn absolute encoder, 20-bit resolution									**C**			
Holding brake	Without brake										**A**		
	With brake (option)										**F**		
Connections	Free leads with connectors (BCH2●B/●D/●F motors only)											**5**	
	MIL connectors (BCH2●H/●M/●R motors only)											**6**	
Mechanical motor design	Motor compatible with Asian style mounting standards												**C**

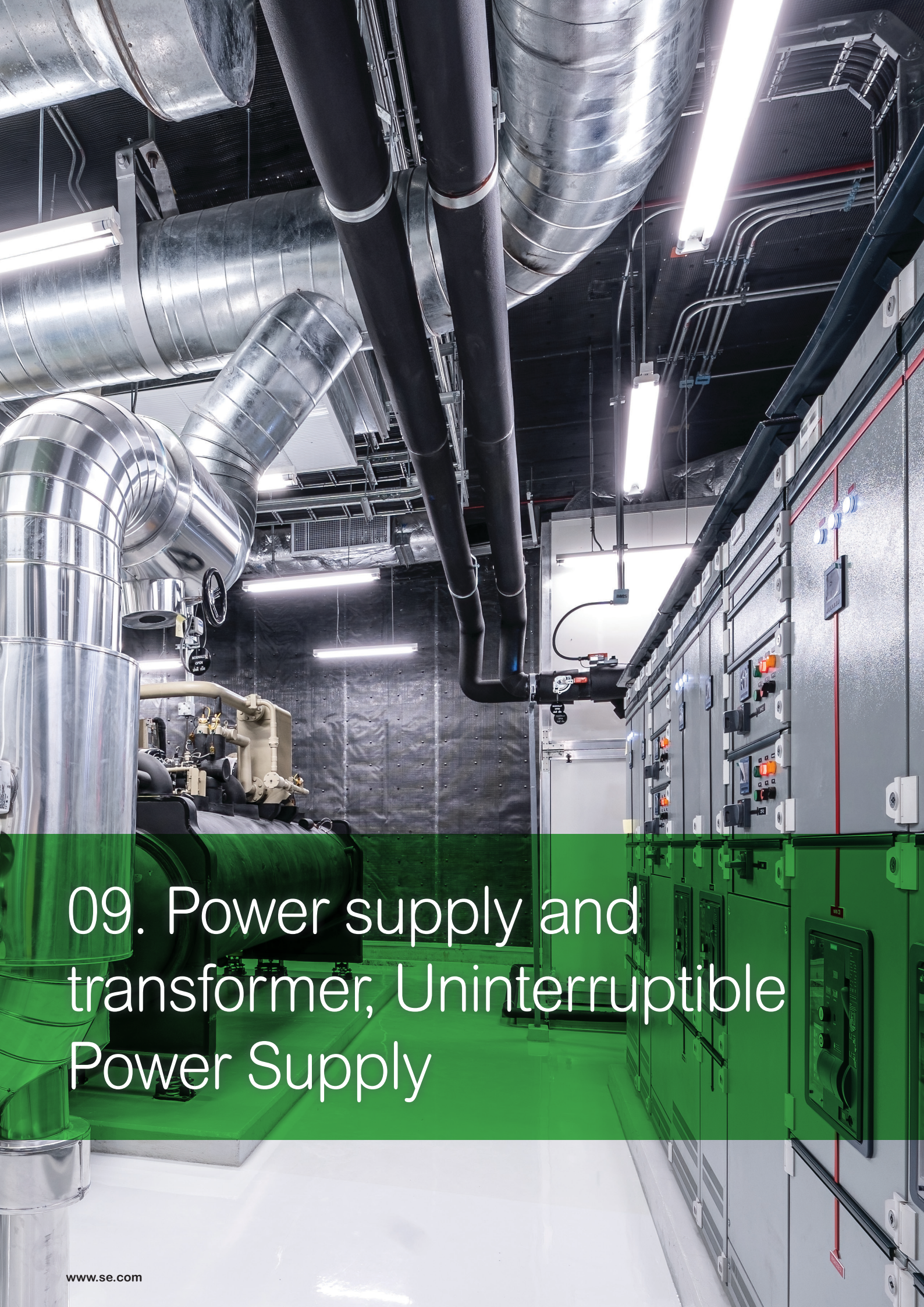
Connection components for BCH2 motors

Cables and connectors to be ordered separately, for connection to Lexium 28 servo drives.
Schneider Electric has taken particular care over the compatibility of BCH2 servo motors and Lexium 28 servo drives.

BCH2 servo motors

Dimensions and weight

				Dimensions (overall)				Weight			
Servo motor	Pn	Flange		Servo motor without brake		Servo motor with brake		without brake		with brake	
				Width x Height x Depth (W x H x D)		Width x Height x Depth (W x H x D)					
	W	mm	*in.*	mm	*in.*	mm	*in.*	kg	*lb*	kg	*lb*
BCH2MBA53●●●5C	50	40	*1.57*	40 x 58.5 x 82	*1.57 x 2.30 x 3.23*	40 x 58.5 x 112	*1.57 x 2.30 x 4.41*	0.400	*0.88*	0.600	*1.32*
BCH2MB013●●●5C	100	40	*1.57*	40 x 58.5 x 100	*1.57 x 2.30 x 3.94*	40 x 58.5 x 130	*1.57 x 2.30 x 5.12*	0.560	*1.23*	0.770	*1.70*
BCH2LD023●●●5C	200	60	*2.36*	60 x 78.5 x 104	*2.36 x 3.09 x 4.09*	60 x 78.5 x 140	*2.36 x 3.09 x 5.51*	1.020	*2.25*	1.500	*3.31*
BCH2LD043●●●5C	400	60	*2.36*	60 x 78.5 x 129	*2.36 x 3.09 x 5.08*	60 x 78.5 x 165	*2.36 x 3.09 x 6.50*	1.450	*3.20*	2.000	*4.41*
BCH2LF043●●●5C	400	80	*3.15*	80 x 98.5 x 112	*3.15 x 3.88 x 4.41*	80 x 98.5 x 152	*3.15 x 3.88 x 4.41*	2.000	*4.41*	2.800	*6.17*
BCH2HF073●●●5C	750	80	*3.15*	80 x 98.5 x 138	*3.15 x 3.88 x 5.43*	80 x 98.5 x 178	*3.15 x 3.88 x 7.01*	2.900	*6.39*	3.700	*8.16*
BCH2LF073●●●5C	750	80	*3.15*	80 x 98.5 x 138	*3.15 x 3.88 x 5.43*	80 x 98.5 x 178	*3.15 x 3.88 x 7.01*	2.800	*6.17*	3.600	*7.94*
BCH2LH103●●●6C	1000	100	*3.94*	100 x 145.6 x 153.5	*3.94 x 5.73 x 6.04*	100 x 145.6 x 180.5	*3.94 x 5.73 x 7.11*	4.600	*10.14*	5.100	*11.24*
BCH2LH203●●●6C	2000	100	*3.94*	100 x 145.6 x 198.5	*3.94 x 5.73 x 7.81*	100 x 145.6 x 225.5	*3.94 x 5.73 x 8.88*	6.700	*14.77*	7.200	*15.87*
BCH2MM031●●●6C	300	130	*5.12*	130 x 176 x 147	*5.12 x 6.92 x 5.79*	130 x 176 x 183	*5.12 x 6.92 x 7.20*	7.000	*15.43*	8.200	*18.08*
BCH2MM052●●●6C	500	130	*5.12*	130 x 176 x 147	*5.12 x 6.92 x 5.79*	130 x 176 x 183	*5.12 x 6.92 x 7.20*	7.000	*15.43*	8.200	*18.08*
BCH2MM061●●●6C	600	130	*5.12*	130 x 176 x 147	*5.12 x 6.92 x 5.79*	130 x 176 x 183	*5.12 x 6.92 x 7.20*	7.000	*15.43*	8.200	*18.08*
BCH2MM081●●●6C	850	130	*5.12*	130 x 176 x 187	*5.12 x 6.92 x 7.36*	130 x 176 x 216	*5.12 x 6.92 x 8.50*	9.600	*21.16*	10.900	*24.03*
BCH2MM091●●●6C	900	130	*5.12*	130 x 176 x 163	*5.12 x 6.92 x 6.42*	130 x 176 x 198	*5.12 x 6.92 x 7.80*	7.600	*16.76*	8.800	*19.40*
BCH2MM102●●●6C	1000	130	*5.12*	130 x 176 x 147	*5.12 x 6.92 x 5.79*	130 x 176 x 183	*5.12 x 6.92 x 7.20*	7.000	*15.43*	8.200	*18.08*
BCH2HM102●●●6C	1000	130	*5.12*	130 x 176 x 147	*5.12 x 6.92 x 5.79*	130 x 176 x **176**	*5.12 x 6.92 x 6.92*	7.000	*15.43*	8.200	*18.08*
BCH2MM152●●●6C	1500	130	*5.12*	130 x 176 x 167	*5.12 x 6.92 x 6.57*	130 x 176 x 202	*5.12 x 6.92 x 7.95*	7.600	*16.76*	8.800	*19.40*
BCH2MM202●●●6C	2000	130	*5.12*	130 x 176 x 187	*5.12 x 6.92 x 7.36*	130 x 176 x 216	*5.12 x 6.92 x 8.50*	9.700	*21.38*	11.000	*24.25*
BCH2MR202●●●6C	2000	180	*7.09*	180 x 245 x 169	*7.09 x 9.65 x 6.65*	180 x 245 x 203	*7.09 x 9.65 x 7.99*	13.000	*28.66*	18.000	*39.68*
BCH2HR202●●●6C	2000	180	*7.09*	180 x 245 x 168	*7.09 x 9.65 x 6.61*	180 x 245 x 203	*7.09 x 9.65 x 7.99*	13.000	*28.66*	18.000	*39.68*
BCH2MR301●●●6C	3000	180	*7.09*	180 x 245 x 202	*7.09 x 9.65 x 7.95*	180 x 245 x 235	*7.09 x 9.65 x 9.25*	18.500	*40.79*	23.000	*50.71*
BCH2MR302●●●6C	3000	180	*7.09*	180 x 245 x 202	*7.09 x 9.65 x 7.95*	180 x 245 x 235	*7.09 x 9.65 x 9.25*	18.500	*40.79*	23.000	*50.71*
BCH2MR352●●●6C	3500	180	*7.09*	180 x 245 x 202	*7.09 x 9.65 x 7.95*	180 x 245 x 235	*7.09 x 9.65 x 9.25*	18.500	*40.79*	23.000	*50.71*
BCH2MR451●●●6C	4500	180	*7.09*	180 x 245 x 235	*7.09 x 9.65 x 9.25*	180 x 245 x 279	*7.09 x 9.65 x 10.98*	23.640	*52.12*	28.000	*61.73*



09. Power supply and transformer, Uninterruptible Power Supply

Modicon power supplies and transformers



Regulated switch mode power supplies 10 to 480 W for mounting on rail

Power		10 to 60 W			50 to 480 W		
Input voltage		100…240 V ∿			100…240 V ∿ and 140…340 V ⎓ *(2)*		
Certifications *(1)*		CE marking, CB Scheme, cULus listed, cULus recognized, RCM, EAC, NEC class 2 *(3)*					
Housing		Modular			Book		
Output voltage		5 V ⎓	12 V ⎓	24 V ⎓	12 V ⎓	24 V ⎓	48 V ⎓
Reference (according to output current)	0.4 A	–	–	**ABLM1A24004**	–	–	–
	0.6 A	–	–	**ABLM1A24006**	–	–	–
	1 A	–	**ABLM1A12010**	–	–	–	–
	1.2 A	–	–	**ABLM1A24012**	–	–	–
	2.1 A	–	**ABLM1A12021**	–	–	–	–
	2.1 A	–	–	–	–	**ABLS1A24021**	–
	2.5 A	–	–	**ABLM1A24025**	–	–	**ABLS1A48025**
	3.1 A	–	–	–	–	**ABLS1A24031**	–
	3.6 A	**ABLM1A05036**	–	–	–	–	–
	3.8 A	–	–	–	–	**ABLS1A24038**	–
	4.2 A	–	**ABLM1A12042**	–	–	–	–
	5 A	–	–	–	–	**ABLS1A24050**	–
	6.2 A	–	–	–	**ABLS1A12062**	–	–
	10 A	–	–	–	**ABLS1A12100**	**ABLS1A24100**	–
	20 A	–	–	–	–	**ABLS1A24200**	–



Regulated switch mode power supplies 72 to 960 W for mounting on rail (wide input voltage range)

Input voltage		100…120 V ∿ and 200…500 V ∿ *(4)*	380…500 V ∿
Certifications *(1)*		CE marking, UL (508), CSA (60950-1), CB Scheme, EAC, RCM, KC	
Compatibility	With function modules	Yes with all Modicon power supply function modules *(5)*	
Output voltage		24 V ⎓	
Reference (according to output current)	3 A	**ABL8RPS24030**	–
	5 A	**ABL8RPS24050**	–
	10 A	**ABL8RPS24100**	–
	20 A	**ABL8RPM24200**	**ABL8WPS24200**
	40 A	–	**ABL8WPS24400**

Regulated switch mode power supplies 100 to 240 W for mounting on panel *(6)*

Input voltage		100…240 V ∿	
Certifications *(1)*		CE marking, CB Scheme, cULus listed, cULus recognized, RCM, EAC	
Output voltage		12 V ⎓	24 V ⎓
Reference (according to output current)	4.5 A	–	**ABLP1A24045**
	6.2 A	–	**ABLP1A24062**
	8.5 A	**ABLP1A12085**	–
	10 A	–	**ABLP1A24100**

(1) Please consult detail on certifications for each reference in the individual datasheet available on our website www.se.com.
(2) Depending on product reference, consult our product datasheet on www.se.com.
(3) NEC class 2 for book only for ABLM●●, ABLS1A24021, ABLS1A24031, and ABLS1A24038.
(4) Except ABL8RPM24200: 100…240 V and 200…240 V ∿.
(5) Compatible modules: buffer module, batteries and battery control modules, redundancy module, and discriminating downstream protection module.
(6) Mounting on DIN rail possible with additional accessories; ABLP1A01 for all references except ABLP1A24100, ABLP1A02 for ABLP1A24100.
For more information, see the Modicon power supply catalog on our website www.se.com.

Modicon power supplies and transformers





Function modules for continuity of service (only compatible with ABL8RP/ABL8WP power supplies)

Type of function		Battery modules *(3) (4)*	Solutions to microbreaks and power outages *(4)*	Redundancy module
Input voltage		24 V ⎓		
Certifications *(2)*		CE marking, UL (508), CSA (60950-1), EAC, RCM		
Compatibility	With power supplies	Yes, but only with ABL8RP/ABL8WP Modicon power supply		
Output voltage		24 V ⎓		
Reference (according to output current)	3 Ah	**ABL8BPK24A03**	–	–
	7 Ah	**ABL8BPK24A07**	–	–
	12 Ah	**ABL8BPK24A12**	–	–
	20 A	–	**ABL8BBU24200** *(1)*	–
	40 A	–	**ABL8BBU24400** *(1)*	**ABL8RED24400**

(1) Similar offer also available, see Schneider Electric DC UPS (see page below).
(2) Please consult detail on certifications for each reference in the individual datasheet available on our website www.se.com.
(3) Supplied with 20 or 30 A fuse, depending on the model.
(4) Holding time depending on the load. Please refer to the table of compatibility of battery module with holding time in the Modicon power supply catalog on our website www.se.com.

Modicon ABL2

Regulated switch mode power supplies

Mounting type	**ABL2REM●●●●●K** **Panel mounting**	**ABLS●●●●E** **DIN rail mounting**
		
Input voltage range	100…240 VAC (universal)	100…240 VAC (+ DC compatible)
Output voltage	24 VDC	12 / 24 / 48 VDC
Power range	35…350 W	75…960 W
Cooling	Natural convection or internal fan	Passive convection
Efficiency (typ.)	> 88%	High efficiency
MTBF	> 600,000 h	Industrial-grade
Voltage selection	Automatic or manual (model-dependent)	Automatic
Protection	Overload, short-circuit, hiccup restart	Constant-current or shutdown mode
Installation density	Compact	High power density
Typical applications	OEM machines, export, packaging, material handling	Control cabinets, infrastructure, high-load systems

Uninterruptible Power Supply (UPS)







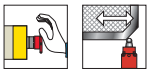
1 24V DC DIN Rail Industrial					
Power Capacity	240 W	480 W			
Input/Output	Hardwire/24 V ⎓				
Input voltage range	21.6 to 28.6 V ⎓				
Mounting type	DIN rail mount				
Runtime	10 mins @ 10 A	5 mins @ 20 A			
Communication	I/O Relay, LEDs				
Number of batteries in parallel	4				
Safety Certifications	UL,TUV, CE and UKCA listed				
2 Line interactive					
Series	1 Ph BVS Series		1 Ph SMV Series		
Nominal Input Voltage | Input Frequency	230 V 50/60 Hz (Auto sensing)				
Nominal Output Voltage | Output Frequency	230 V ∿ 50 Hz or 60 Hz +/- 1 Hz				
Power Capacity	300 W/500 VA to 600 W/1,000 VA		525 W/750 VA to 2,100 W/3,000 VA		
Topology	Line interactive				
Battery type	Maintenance-free sealed lead-acid battery				
3 On-line					
Model	SRV 1,000 VA	SRV 2,000 VA	SRV 3,000 VA	SRV 6,000 VA	SRV 10,000 VA
Nominal Input Voltage | Input Frequency	230 V ∿ 50/60 Hz				
Output Voltage | Frequency	220/230/240 V ∿ | 50/60 Hz +/-0.5%			220/230/240 V ∿ | 50/60 Hz +/-0.1%	
Output Power Capacity (Watts/VA)	800 W/1,000 VA	1,600 W/2,000 VA	2,400 W/3,000 VA	6,000 W/6,000 VA	10,000 W/10,000 VA
Topology	Online				
Mounting type	Rack & Tower				
Battery type	Maintenance-free sealed lead-acid battery				

Note: For more information depending on product reference, consult our product datasheet on www.se.com.



10. Harmony safety modules

Harmony safety modules

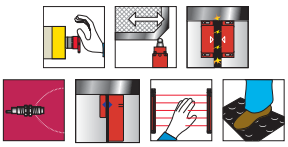






Function: Emergency stop, guard switch

Harmony safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0			
Terminal type		Captive screw clamp terminal	
Connections		Integrated in module	Removable from module
Number of instantaneous safety output contacts		3 NO	3 NO
Number of additional output contacts		1 solid state	1 solid state
Reference	24 VAC/VDC	**XPSBAC14AP**	**XPSBAC14AC**
	48...240 VAC/DC	**XPSBAC34AP**	**XPSBAC34AC**





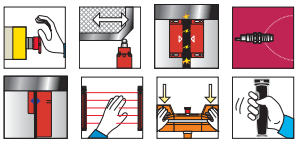






Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety mats/edges, safety light curtain or RFID switch monitoring

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0 (for XPSUAK) and STOP category 1 (for XPSUAT)						
Terminal type			Captive screw clamp terminal		Spring clamp terminal	
Connections			Removable from module			
Number of instantaneous safety circuits			3 NO	2 NO + 1 NC	3 NO	2 NO + 1 NC
Number of delayed or immediate contacts			3 NO + 1 NC	–	3 NO + 1 NC	–
Number of additional outputs			1 solid state + 1 pulsed diagnostic output	1 pulsed diagnostic output	1 solid state + 1 pulsed diagnostic output	1 pulsed diagnostic output
Reference	24 VAC/VDC	–	–	**XPSUAK12AP**	–	**XPSUAK12AC**
		0…15 min	**XPSUAT13A3AP**	–	**XPSUAT13A3AC**	–
	48...240 VAC/VDC	–	–	**XPSUAK32AP**	–	**XPSUAK32AC**
		0…15 min	**XPSUAT33A3AP**	–	**XPSUAT33A3AC**	–





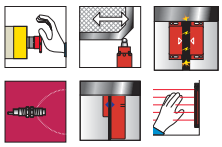


Function: Emergency stop, protective guard, enabling switch or two-hand control monitoring, coded magnetic switch, SIL2 proximity switches, safety light curtain or RFID switch monitoring *(1) (2)*

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0			
Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Type conforming to standard EN5074		IIIA or IIIC	IIIA or IIIC
Number of instantaneous safety circuits		2 NO	2 NO
Maximum number of two-hand control or enabling switch monitoring (Cat. 4, PL e, SIL3)		1	1
Maximum number of safety light curtain or RFID switch monitoring (Cat. 4, PL e, SIL3)		2	2
Maximum number of safety coded magnetic switches or other safety devices (Cat. 4, PL e, SIL3)		2	2
Number of additional outputs		1 pulsed diagnostic output	1 pulsed diagnostic output
Reference	24 VAC/VDC	**XPSUS12AP**	**XPSUS12AC**
	48...240 VAC/VDC	**XPSUS32AP**	**XPSUS32AC**

(1) Enabling switch and two-hand control with automatic start only.
(2) Can also be used with XY2SB71 or XY2SB714 two-hand control stations.

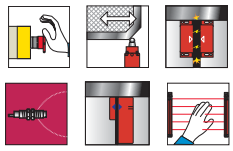
Harmony safety modules







Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety light curtain or RFID switch monitoring			
Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0			
Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Number of instantaneous safety circuits		3 NO	3 NO
Number of additional outputs		1 pulsed diagnostic output	1 pulsed diagnostic output
Reference	24 VAC/VDC	**XPSUAF13AP**	**XPSUAF13AC**
	48...240 VAC/VDC	**XPSUAF33AP**	**XPSUAF33AC**

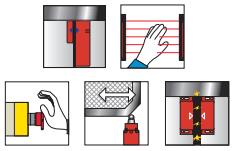






Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety light curtain or RFID switch monitoring			
Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0			
Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Number of instantaneous safety circuits		3 NO + 1 NC	3 NO + 1 NC
Maximum number of safety functions for Cat. 4, PL e, SIL3		6	6
Number of additional outputs		1 pulsed diagnostic output	1 pulsed diagnostic output
Reference	24 VAC/VDC	**XPSUDN13AP**	**XPSUDN13AC**
	48...240 VAC/VDC	**XPSUDN33AP**	**XPSUDN33AC**

Harmony safety modules

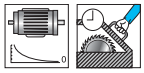






Function: Emergency stop, switch monitoring and protective guard applications

Harmony safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 1				
Terminal type			Captive screw clamp terminal	Spring clamp terminal
Connections			Removable from module	
Number of instantaneous safety output contacts			2 NO	
Number of delayed or immediate output contacts			1 NO	
Number of additional outputs			1 solid-state	
Reference	24 VAC/DC	0…15 min	**XPSBAT12A1AP**	**XPSBAT12A1AC**







Function: Zero speed monitoring with delayed access to dangerous area

Harmony safety modules conforming to Cat. 3, PL e, SIL3, and STOP category 1			
Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Number of safety delayed output contact		1 NO *(1)*	
Number of additional outputs		1 Solid-state + 1 pulsed diagnostic output	
Voltage threshold selection		50…500 mV	
Time delay selection		0.5…60 s	
Reference	24 VAC/DC	**XPSUVN11AP**	**XPSUVN11AC**
	48…240 VAC/DC	**XPSUVN31AP**	**XPSUVN31AC**







Function: Increasing the number of safety contacts *(2)*

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0			
Terminal type		Captive screw clamp terminal	Spring clamp terminal
Connections		Removable from module	
Number of instantaneous safety circuits		4 NO	4 NO
Number of additional outputs		2 NC	2 NC
Reference	24 VAC/VDC	**XPSUEP14AP**	**XPSUEP14AC**
	48...240 VAC/VDC	**XPSUEP34AP**	**XPSUEP34AC**

(1) To increase the number of safety delayed output contacts, please consider to add the appropriate XPSUEP range extension outputs.
(2) This module can be used with just XPSU safety modules and is mounted via a side expansion connection included with the product, expect for XPSUAB.

Modicon MCM modular safety controllers



Safety controllers CPU

Safety controllers conforming to Cat. 4, PL e, SIL3

Description		Safety controller CPU	CPU + backplane connector	Safety controller CPU	CPU + backplane connector	
Connections		Removable from controller				
Number and type of inputs		8 digital inputs + 2 for Start/Restart interlock		8 digital inputs + 4 for Start/Restart interlock		
Number and type of outputs		2 OSSD pairs + 4 test outputs + 2 status outputs		4 OSSD + 4 test outputs + 4 status outputs		
Terminal type		Screw *(1)*				
Reference	24 VDC	**XPSMCMCP0802**	**XPSMCMCP0802BC**	**XPSMCMC10804**	**XPSMCMC10804B**	



Safe expansion modules

Safe expansion I/O modules

Description		Safe mixed I/O expansion modules		Safe input expansion modules			
Number and type of inputs		8 digital inputs + 2 for Start/Restart interlock	8 digital inputs + 4 for Start/Restart interlock	8 digital inputs	16 digital inputs	12 digital inputs	4-channel analogic inputs 0...20 mA/0…10 V
Number and type of outputs		2 OSSD pairs + 4 test outputs + 2 status outputs	4 single OSSD + 4 test outputs + 4 status outputs	4 test outputs	4 test outputs	8 test outputs for 4-wire safety mats	–
Resolution		–					16 bits
Terminal type		Screw *(1)*					
Reference	24 VDC	**XPSMCMMX0802**	**XPSMCMMX0804** *(2)*	**XPSMCMDI0800**	**XPSMCMDI1600**	**XPSMCMDI1200MT**	**XPSMCMAI0400** *(2)*



Safe output expansion modules

Description		Safe digital expansion modules		Safe relay output modules (without expansion bus connection, wired externally)		Safe relay output modules (with expansion bus connection)	
Number and type of inputs		2 for Start/Restart interlock	4 for Start/Restart interlock	1 for Start/Restart interlock	2 for Start/Restart interlock	4 for Start/Restart interlock	
Number and type of outputs		2 OSSD pairs + 2 status outputs	4 OSSD pairs + 4 status outputs	2 relays for 1 output (2 NO +1 NC)	4 relays for 2 independent outputs (4 NO + 2 NC)	4 relays	4 relays with 8 status outputs
Terminal type		Screw *(1)*					
Reference	24 VDC	**XPSMCMDO0002**	**XPSMCMDO0004**	**XPSMCMER0002**	**XPSMCMER0004**	**XPSMCMRO0004**	**XPSMCMRO0004D**



Safe speed monitoring modules

Description	Safe speed monitoring modules					
Number and type of inputs	- 1 Sin/Cos encoder and 2 proximity sensor inputs	- 2 Sin/Cos encoders and 2 proximity sensor inputs	- 1 TTL encoder and 2 proximity sensor inputs	- 2 TTL encoders and 2 proximity sensor inputs	- 1 HTL encoder and 2 proximity sensor inputs	- 2 HTL encoders and 2 proximity sensor inputs
Connector type	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks	- 1x RJ 45 (ENC1) - Proximity sensor connection via terminal blocks	- 2x RJ 45 (ENC1/ENC2) - Proximity sensor connection via terminal blocks
Terminal type	Screw *(1)*					
Reference	**XPSMCMEN0100SC**	**XPSMCMEN0200SC** *(3)*	**XPSMCMEN0100TT**	**XPSMCMEN0200TT**	**XPSMCMEN0100HT**	**XPSMCMEN0200HT**

(1) References are given for products with a screw connector. For equivalent references with a spring clamp connector, add a "G" at the end of the reference. For example, XPSMCMMX0802 becomes XPSMCMMX0802G.
(2) Modules can be used with just the CPU XPSMCMC10804 or XPSMCMC10804BC CPU (screw or spring terminal type).
(3) When monitoring of only 2 proximity sensors is required, order an XPSMCMEN0200.

Modicon MCM modular safety controllers




Safe expansion modules *(continued)*

Safe communication expansion modules		
Description	Safe RS 485 bus expansion module for remote extension	
Characteristics	1 connection interface: single channel transmitter/receiver network connection	2 connections interface: dual channel transmitter/receiver network connection
Terminal type	Screw *(1)*	
Reference	**XPSMCMCO0000S1**	**XPSMCMCO0000S2**





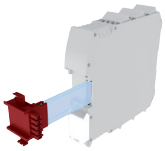



Non-Safe communication modules

Description	Non-Safe communication modules					
Fieldbus/network type	CANopen	Ethernet IP	EtherCAT	Modbus Serial (RTU)	Modbus TCP	Profibus DP
Fieldbus connector type	SUB-D 9-way (female)	1x RJ 45 (in/out)	2x RJ 45 (in/out)	1x RJ 45	1x RJ 45 (in/out)	SUB-D 9-way (male)
Terminal type	Screw *(1)*					
Reference	**XPSMCMCO0000CO**	**XPSMCMCO0000EI**	**XPSMCMCO0000EC**	**XPSMCMCO0000MB**	**XPSMCMCO0000EM**	**XPSMCMCO0000PB**

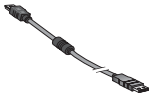
Software

Description	SoSafe configurable software
Application	To configure a logic connection between the inputs and outputs of the XPSMCMCP0802 and XPSMCMC10804 safety controller CPU *(4)* and the components of the application being developed
PC hardware requirements	RAM: 256 MB, Hard disk ≥ 300 MB of free space USB connector: 1.1 or 2.0, CD-ROM drive
PC software requirements	Windows XP with Service Pack 3 installed or Windows Vista, 32-bit, or Windows 7 or 8.1, 32-bit and 64-bit Microsoft Framework 3.5 installed on the PC
Reference	**Free software available to download from www.se.com**




Accessories

Description	Backplane expansion connector *(2)*	Memory card
Application	To connect the various expansion modules to the safety controller CPU	To save configuration data for subsequent transfer to a new device without using a PC
Reference	**XPSMCMCN0000SG**	**XPSMCMME0000**





Description	Configuration cable	RS 485 shielded cables			Encoder splitter cables
Use	For software configuration, between a PC, the safety controller CPU, and the fieldbus communication modules. Equipped with 2x USB connectors: USB A and USB mini B	Between two Safe communication expansion modules			Between SIN/COS safe speed monitoring modules and Lexium 62 (PacDrive 3), Lexium 32 servo drives and the associated servo motors
Reference	**TCSXCNAMUM3P**	**TSXSCMCN010**	**TSXSCMCN025**	**TSXSCMCN050**	**TSXESPP3001** *(3)*

(1) References are given for products with a screw terminal. For equivalent references with a spring clamp connector, add a "G" at the end of the reference. For example, XPSMCMCO0000S1 becomes XPSMCMCO0000S1G.
(2) This connector only needs to be ordered for the XPSMCMCP0802 or XPSMCMC10804 safety controller when it is connected to expansion modules.
(3) With 1 m cable. For other cable lengths, replace the last number of the reference with 3 for a 3 m cable or 5 for a 5 m cable.
(4) Consider all CPUs with screw and spring clamp terminals.



11. Universal enclosures

PanelSeT SDB, SBM, and SBX steel industrial boxes



PanelSeT SDB - Derivation Boxes

				Metallic junction boxes IP55 - IK07 - RAL 7035		Plain mounting plate
	External dimensions (mm)			Models without knock-outs	Models with knock-outs	
	H	W	D	References	References	
Low cover	85	85	49	NSYDBN88	NSYDB88M	-
	105	105	49	NSYDBN1010	NSYDB1010M	-
	155	105	61	NSYDBN1510	NSYDB1510M	NSYPMD1510
	206	156	83	NSYDBN2015	NSYDB2015M	NSYPMD2015
	256	206	93	NSYDBN2520	-	NSYPMD2520
	307	257	116	NSYDBN3025	-	NSYPMD3025







PanelSeT SBM - Industrial Boxes

			Steel industrial boxes RAL 7035	Mounting Plate			DIN Rail
External dimensions (mm)			PanelSeT SBM - Flat box IP66 - IK10				
H	W	D	References	H	W	References	
150	150	80	NSYSBM15158	125	135	NSYMM11SB	NSYAMRD15357SB
150	150	120	NSYSBM151512	125	135	NSYMM11SB	NSYAMRD15357SB
150	200	80	NSYSBM15208	125	185	NSYMM12SB	NSYAMRD20357SB
150	200	120	NSYSBM152012	125	185	NSYMM12SB	NSYAMRD20357SB
150	300	80	NSYSBM15308	125	285	NSYMM13SB	NSYAMRD30357SB
150	300	120	NSYSBM153012	125	285	NSYMM13SB	NSYAMRD30357SB
150	400	80	NSYSBM15408	125	385	NSYMM14SB	NSYAMRD40357SB
150	400	120	NSYSBM154012	125	385	NSYMM14SB	NSYAMRD40357SB
200	200	80	NSYSBM20208	175	185	NSYMM22SB	NSYAMRD20357SB
200	200	120	NSYSBM202012	175	185	NSYMM22SB	NSYAMRD20357SB
200	300	80	NSYSBM20308	175	285	NSYMM23SB	NSYAMRD30357SB
200	300	120	NSYSBM203012	175	285	NSYMM23SB	NSYAMRD30357SB
200	400	80	NSYSBM20408	175	385	NSYMM24SB	NSYAMRD40357SB
200	400	120	NSYSBM204012	175	385	NSYMM24SB	NSYAMRD40357SB
200	500	80	NSYSBM20508	175	485	NSYMM25SB	NSYAMRD50357SB
200	500	120	NSYSBM205012	175	485	NSYMM25SB	NSYAMRD50357SB
200	600	80	NSYSBM20608	175	585	NSYMM26SB	NSYAMRD60357SB
200	600	120	NSYSBM206012	175	585	NSYMM26SB	NSYAMRD60357SB
200	800	120	NSYSBM208012	175	785	NSYMM28SB	NSYAMRD80357SB
300	300	120	NSYSBM303012	275	285	NSYMM33SB	NSYAMRD30357SB
300	400	120	NSYSBM304012	275	385	NSYMM34SB	NSYAMRD40357SB
300	500	120	NSYSBM305012	275	485	NSYMM35SB	NSYAMRD50357SB
300	600	120	NSYSBM306012	275	585	NSYMM36SB	NSYAMRD60357SB
300	800	120	NSYSBM308012	275	785	NSYMM38SB	NSYAMRD80357SB
400	400	120	NSYSBM404012	375	385	NSYMM44SB	NSYAMRD40357SB
400	500	120	NSYSBM405012	375	485	NSYMM45SB	NSYAMRD50357SB
400	600	120	NSYSBM406012	375	585	NSYMM46SB	NSYAMRD60357SB
400	800	120	NSYSBM408012	375	785	NSYMM48SB	NSYAMRD80357SB









PanelSeT SBX - Industrial Boxes

			PanelSeT SBX IP66 - IK10	Mounting plate	DIN rail	Fixing lugs	Sealing kit
External dimensions (mm)			Stainless-steel Industrial Boxes				
H	W	D					
150	150	80	NSYSBX15158	NSYMM11SB	NSYAMRD15357SB	NSYAEFPFSBX*	NSYPPSB*
150	300	80	NSYSBX15308	NSYMM13SB	NSYAMRD30357SB	NSYAEFPFSBX*	NSYPPSB*
200	200	80	NSYSBX20208	NSYMM22SB	NSYAMRD20357SB	NSYAEFPFSBX*	NSYPPSB*
200	300	80	NSYSBX20308	NSYMM23SB	NSYAMRD30357SB	NSYAEFPFSBX*	NSYPPSB*
200	400	120	NSYSBX204012	NSYMM24SB	NSYAMRD40357SB	NSYAEFPFSBX*	NSYPPSB*
300	300	120	NSYSBX303012	NSYMM33SB	NSYAMRD30357SB	NSYAEFPFSBX*	NSYPPSB*

*Same reference for all dimensions.

PanelSeT CRN and S3D steel wall-mounting enclosures





PanelSeT CRN and S3D *(1)* multi-purpose steel wall-mounting enclosures

Degree of protection: IP66 (single door), IP55 (double door). Mechanical protection: IK10. Finish: painted with textured epoxy-polyester resin in RAL7035 light grey

Range					PanelSeT CRN		PanelSeT S3D		Mounting plate
Composition					With plain mounting plate	Without mounting plate	With plain mounting plate	Without mounting plate	Plain mounting plate
Reference according to dimensions (H x W x D) in mm, and number of doors	200	200	150	1	–	**NSYCRN22150**	–	–	**NSYMM22**
	200	300	150	1	–	**NSYCRN23150**	–	–	**NSYMM32**
	250	200	150	1	**NSYCRN252150P**	**NSYCRN252150**	–	–	**NSYMM2520**
	300	200	150	1	–	–	**NSYS3D3215P**	**NSYS3D3215**	**NSYMM32**
	300	250	150	1	**NSYCRN325150P**	**NSYCRN325150**	**NSYS3D32515P**	**NSYS3D32515**	**NSYMM3025**
	300	250	200	1	**NSYCRN325200P**	**NSYCRN325200**	–	–	**NSYMM3025**
	300	300	150	1	**NSYCRN33150P**	**NSYCRN33150**	**NSYS3D3315P**	**NSYS3D3315**	**NSYMM33**
	300	300	200	1	**NSYCRN33200P**	**NSYCRN33200**	**NSYS3D3320P**	**NSYS3D3320**	**NSYMM33**
	300	400	150	1	–	–	**NSYS3D3415P**	**NSYS3D3415**	**NSYMM43**
	300	400	200	1	–	**NSYCRN34200**	**NSYS3D3420P**	**NSYS3D3420**	**NSYMM43**
	300	450	150	1	–	**NSYCRN345150**	–	–	**NSYMM3045**
	400	300	150	1	**NSYCRN43150P**	**NSYCRN43150**	**NSYS3D4315P**	**NSYS3D4315**	**NSYMM43**
	400	300	200	1	**NSYCRN43200P**	**NSYCRN43200**	**NSYS3D4320P**	**NSYS3D4320**	**NSYMM43**
	400	400	200	1	**NSYCRN44200P**	**NSYCRN44200**	**NSYS3D4420P**	**NSYS3D4420**	**NSYMM44**
	400	600	200	1	–	–	**NSYS3D4620P**	**NSYS3D4620**	**NSYMM64**
	400	600	250	1	**NSYCRN46250P**	**NSYCRN46250**	**NSYS3D4625P**	**NSYS3D4625**	**NSYMM64**
	400	600	300	1	–	**NSYCRN46300**	–	–	**NSYMM64**
	500	300	200	1	–	–	**NSYS3D5320P**	**NSYS3D5320**	**NSYMM53**
	500	400	150	1	**NSYCRN54150P**	**NSYCRN54150**	–	–	**NSYMM54**
	500	400	200	1	**NSYCRN54200P**	**NSYCRN54200**	**NSYS3D5420P**	**NSYS3D5420**	**NSYMM54**
	500	400	250	1	**NSYCRN54250P**	**NSYCRN54250**	**NSYS3D5425P**	**NSYS3D5425**	**NSYMM54**
	500	500	200	1	–	–	**NSYS3D5520P**	**NSYS3D5520**	**NSYMM55**
	500	500	250	1	**NSYCRN55250P**	**NSYCRN55250**	**NSYS3D5525P**	**NSYS3D5525**	**NSYMM55**
	600	400	150	1	**NSYCRN64150P**	**NSYCRN64150**	–	–	**NSYMM64**
	600	400	200	1	**NSYCRN64200P**	**NSYCRN64200**	**NSYS3D6420P**	**NSYS3D6420**	**NSYMM64**
	600	400	250	1	**NSYCRN64250P**	**NSYCRN64250**	**NSYS3D6425P**	**NSYS3D6425**	**NSYMM64**
	600	500	150	1	**NSYCRN65150P**	**NSYCRN65150**	–	–	**NSYMM65**
	600	500	200	1	**NSYCRN65200P**	**NSYCRN65200**	–	–	**NSYMM65**
	600	500	250	1	**NSYCRN65250P**	**NSYCRN65250**	**NSYS3D6525P**	**NSYS3D6525**	**NSYMM65**
	600	600	200	1	**NSYCRN66200P**	**NSYCRN66200**	**NSYS3D6620P**	**NSYS3D6620**	**NSYMM66**
	600	600	250	1	**NSYCRN66250P**	**NSYCRN66250**	**NSYS3D6625P**	**NSYS3D6625**	**NSYMM66**
	600	600	300	1	**NSYCRN66300P**	**NSYCRN66300**	**NSYS3D6630P**	**NSYS3D6630**	**NSYMM66**
	600	600	400	1	–	–	**NSYS3D6640P**	**NSYS3D6640**	**NSYMM66**
	600	800	300	1	–	**NSYCRN68300**	**NSYS3D6830P**	**NSYS3D6830**	**NSYMM86**
	700	500	200	1	**NSYCRN75200P**	**NSYCRN75200**	–	–	**NSYMM75**
	700	500	250	1	**NSYCRN75250P**	**NSYCRN75250**	**NSYS3D7525P**	**NSYS3D7525**	**NSYMM75**
	800	600	200	1	**NSYCRN86200P**	**NSYCRN86200**	**NSYS3D8620P**	**NSYS3D8620**	**NSYMM86**
	800	600	250	1	**NSYCRN86250P**	**NSYCRN86250**	**NSYS3D8625P**	**NSYS3D8625**	**NSYMM86**
	800	600	300	1	**NSYCRN86300P**	**NSYCRN86300**	**NSYS3D8630P**	**NSYS3D8630**	**NSYMM86**
	800	600	400	1	–	**NSYCRN86400**	**NSYS3D8640P**	**NSYS3D8640**	**NSYMM86**
	800	800	200	1	**NSYCRN88200P**	**NSYCRN88200**	–	–	**NSYMM88**
	800	800	250	1	–	–	**NSYS3D8825P**	**NSYS3D8825**	**NSYMM88**
	800	800	300	1	**NSYCRN88300P**	**NSYCRN88300**	**NSYS3D8830P**	**NSYS3D8830**	**NSYMM88**
	800	1000	300	1	–	–	**NSYS3D81030P**	**NSYS3D81030**	**NSYMM108**
	800	1000	300	2	–	**NSYCRN810300D**	–	–	**NSYMM108**
	800	1200	300	2	–	**NSYCRN812300D**	**NSYS3D81230DP**	**NSYS3D81230D**	**NSYMM128**
	1000	600	250	1	**NSYCRN106250P**	**NSYCRN106250**	**NSYS3D10625P**	**NSYS3D10625**	**NSYMM106**
	1000	600	300	1	**NSYCRN106300P**	**NSYCRN106300**	**NSYS3D10630P**	**NSYS3D10630**	**NSYMM106**
	1000	600	400	1	–	**NSYCRN106400**	**NSYS3D10640P**	**NSYS3D10640**	**NSYMM106**
	1000	800	250	1	**NSYCRN108250P**	**NSYCRN108250**	**NSYS3D10825P**	**NSYS3D10825**	**NSYMM108**
	1000	800	300	1	**NSYCRN108300P**	**NSYCRN108300**	**NSYS3D10830P**	**NSYS3D10830**	**NSYMM108**
	1000	800	400	1	–	**NSYCRN108400**	**NSYS3D10840P**	**NSYS3D10840**	**NSYMM108**
	1000	1000	300	1	–	–	**NSYS3D101030P**	**NSYS3D101030**	**NSYMM1010**
	1000	1000	300	2	–	**NSYCRN1010300D**	–	–	**NSYMM1010**
	1000	1200	300	2	–	**NSYCRN1012300D**	**NSYS3D101230DP**	**NSYS3D101230D**	**NSYMM1210**
	1000	1200	400	2	–	**NSYCRN1012400D**	**NSYS3D101240DP**	**NSYS3D101240D**	**NSYMM1210**
	1200	600	300	1	–	**NSYCRN126300**	**NSYS3D12630P**	**NSYS3D12630**	**NSYMM126**
	1200	600	400	1	–	**NSYCRN126400**	**NSYS3D12640P**	**NSYS3D12640**	**NSYMM126**
	1200	800	300	1	–	**NSYCRN128300**	**NSYS3D12830P**	**NSYS3D12830**	**NSYMM128**
	1200	800	400	1	–	**NSYCRN128400**	**NSYS3D12840P**	**NSYS3D12840**	**NSYMM128**
	1200	1000	300	1	–	–	**NSYS3D121030P**	**NSYS3D121030**	**NSYMM1210**
	1200	1000	300	2	–	**NSYCRN1210300D**	–	–	**NSYMM1210**
	1200	1000	400	2	–	**NSYCRN1210400D**	**NSYS3D121040DP**	**NSYS3D121040D**	**NSYMM1210**
	1200	1200	300	2	–	**NSYCRN1212300D**	**NSYS3D121230DP**	**NSYS3D121230D**	**NSYMM1212**
	1200	1200	400	2	–	**NSYCRN1212400D**	**NSYS3D121240DP**	**NSYS3D121240D**	**NSYMM1212**
	1400	1000	300	2	–	**NSYCRN1410300D**	**NSYS3D141030DP**	**NSYS3D141030D**	**NSYMM1410**

(1) Multi-purpose enclosures are empty enclosures meeting the majority of application requirements. The PanelSeT S3D offer also comprises enclosures for specific applications, including electromagnetic compatibility (EMC), Voice/Data/Image (VDI), human-machine interface (HMI), modular distribution, outdoor installation, and hazardous environments (ATEX, seismic, or nuclear). In order to check the availability of this range in your country, please contact your local Schneider Electric representative.

(2) In order to check the availability of this range in your country, please contact your local Schneider Electric representative.

PanelSeT insulating industrial boxes and wall-mounting enclosures



PanelSeT TBS, TBP Industrial Boxes

										PanelSeT TBS IP66 - IK07 - RAL 7035		PanelSeT TBP IP66 - IK08 - RAL 7035	
Overall external dimensions (mm)			Overall internal dimensions (mm)			Body (mm)	Cover (mm)	Minor pack.	Cover screw	ABS boxe covers		PC-UL boxe covers	
H	W	D	H	W	D					Opaque	Transparent	Opaque	Transparent
74	74	54	65	65	47	37	10	5	Metal	NSYTBS775	-	NSYTBP775	-
89	89	54	80	80	47	37	10	5	Metal	NSYTBS885	-	NSYTBP885	-
116	74	62	105	65	55	45	10	5	Metal	NSYTBS1176	-	NSYTBP1176	-
116	116	62	105	105	55	45	10	5	Plastic	NSYTBS11116	-	NSYTBP11116	-
138	93	72	125	80	65	45	20	2	Plastic	NSYTBS1397	NSYTBS1397T	NSYTBP1397	NSYTBP1397T
164	121	87	150	105	80	60	20	2	Plastic	NSYTBS16128	NSYTBS16128T	NSYTBP16128	NSYTBP16128T
192	121	87	175	105	80	60	20	2	Plastic	NSYTBS19128	NSYTBS19128T	NSYTBP19128	NSYTBP19128T
192	164	87	175	150	80	60	20	1	Plastic	NSYTBS19168	NSYTBS19168T	NSYTBP19168	NSYTBP19168T
241	194	87	225	175	80	60	20	1	Plastic	NSYTBS24198	NSYTBS24198T	NSYTBP24198	NSYTBP24198T
241	194	107	225	175	100	80	20	1	Plastic	NSYTBS241910	NSYTBS241910T	NSYTBP241910	NSYTBP241910T
291	241	88	275	225	80	60	20	1	Plastic	NSYTBS29248	NSYTBS29248T	NSYTBP29248	NSYTBP29248T
291	241	128	275	225	120	100	20	1	Plastic	NSYTBS292412	NSYTBS292412T	NSYTBP292412	NSYTBP292412T
341	291	128	325	275	120	100	20	1	Plastic	NSYTBS342912	NSYTBS342912T	NSYTBP342912	NSYTBP342912T



PanelSeT PLS - Modular boxes

			PanelSeT PLS IP66 - IK09 - RAL 7035		
Dimensions (mm)			Complete box		
H	W	D	Transparent cover	Opaque cover	Polyester cover
180	270	180	NSYPLS1827G	NSYPLSC1827G	NSYPLSP1827G
270	270	180	NSYPLS2727G	NSYPLSC2727G	NSYPLSP2727G
270	270	230	NSYPLS2727AG	NSYPLSC2727AG	-
270	360	180	NSYPLS2736G	NSYPLSC2736G	NSYPLSP2736G
270	360	230	NSYPLS2736AG	NSYPLSC2736AG	-
270	540	180	NSYPLS2754G	NSYPLSC2754G	NSYPLSP2754G
270	540	230	NSYPLS2754AG	NSYPLSC2754AG	-
360	360	180	NSYPLS3636G	NSYPLSC3636G	NSYPLSP3636G
360	540	180	NSYPLS3654G	NSYPLSC3654G	NSYPLSP3654G
360	540	230	NSYPLS3654AG	NSYPLSC3654AG	-
360	720	230	NSYPLS3672AG	NSYPLSC3672AG	-
540	540	180	NSYPLS5454G	NSYPLSC5454G	NSYPLSP5454G
540	540	230	NSYPLS5454AG	NSYPLSC5454AG	-
540	720	230	NSYPLS5472AG	NSYPLSC5472AG	-



Glassfiber Reinforced Polyester

			PanelSeT PLM IP66 - IK10 (1) - RAL 7035					
External dimensions (mm)			ABS/PC wall-mounting enclosures		Polyester wall-mounting enclosures			
H	W	D	Plain door	Transp. door	Plain door	Transp. door	Plain door 3-point closure	Transp. door 3-point closure
310	215	160	NSYPLM32G	NSYPLM32TG	-	-	-	-
308	255	160	-	-	NSYPLM3025G	NSYPLM3025TG	-	-
430	330	200	-	-	NSYPLM43G	NSYPLM43TG	NSYPLM43VG	NSYPLM43TVG
530	430	200	-	-	NSYPLM54G	NSYPLM54TG	NSYPLM54VG	NSYPLM54TVG
647	436	250	-	-	NSYPLM64G	NSYPLM64TG	NSYPLM64VG	NSYPLM64TVG
747	536	300	-	-	NSYPLM75G	NSYPLM75TG	NSYPLM75VG	NSYPLM75TVG
847	636	300	-	-	NSYPLM86G	NSYPLM86TG	NSYPLM86VG	NSYPLM86TVG
1056	852	350	-	-	NSYPLM108G	NSYPLM108TG	-	-

(1) Transparent doors: IK08.

Lighting accessories and ClimaSys ventilation systems





LED lamps

Type of lamp	Cost-effective LED lamps				Portable LED lamps
Voltage (V)	120/230 AC			24/48 DC	120/230 AC
Frequency (Hz)	50 - 60			–	50 - 60
Power (W)	5	10		5	10
Power factor	0.8	0.9		1	0.5
Lumens (lm)	500	1100		470	1100
Reference	**NSYLAMT5LD1**	**NSYLAMT5LD2**		**NSYLAMT5LD1VDC**	**NSYLAMPORTLD**



Type of lamp		Multi-fixing LED lamps and power cables					
Voltage (V)		120/230 AC			120 AC	24/48 DC	230 AC
Frequency (Hz)		50 - 60					
Power (W)		10					
Lumens (lm)		640					
Standards		IEC			UL	IEC/UL	
Type of socket		SCHUKO	UTE	BRITISH	USA	Without socket	
Reference	LED lamps	**NSYLAMLDS**	**NSYLAMLDF**	**NSYLAMLDB**	**NSYLAMLDU**	**NSYLAMLD**	**NSYLAMLDVDC**	**NSYLAMLDD** with presence detector
	Power cables IEC	**NSYLAM3M** *(1)*			–	**NSYLAM3M** *(1)*	**NSYLAM3MDC**	**NSYLAM3M** *(1)*
	Power cables UL	–			**NSYLAM3MUL** *(1)*	**NSYLAM3MUL** *(1)*	**NSYLAM3MDCUL**	**NSYLAM3MUL** *(1)*
	Inter-connexion cables IEC	**NSYLAM1M** *(1)*			–	**NSYLAM1M** *(1)*	–	**NSYLAM1M** *(1)*

(1) For orange cables, add N to the end of the reference (example: NSYLAM3MN).









ClimaSys CV ventilation systems

Degree of protection: IP54

Color: RAL 7035 light gray

Fan flow (m³/h) *(2)*	Voltage (V)	Fan reference	Outlet grid reference
38	115	**NSYCVF38M115PF**	**NSYCAG92LPF**
	230	**NSYCVF38M230PF**	**NSYCAG92LPF**
85	115	**NSYCVF85M115PF**	**NSYCAG125LPF**
	230	**NSYCVF85M230PF**	**NSYCAG125LPF**
165	115	**NSYCVF165M115PF**	**NSYCAG223LPF**
	230	**NSYCVF165M230PF**	**NSYCAG223LPF**
300	115	**NSYCVF300M115PF**	**NSYCAG223LPF**
	230	**NSYCVF300M230PF**	**NSYCAG223LPF**
560	115	**NSYCVF560M115PF**	**NSYCAG291LPF**
	230	**NSYCVF560M230PF**	**NSYCAG291LPF**
850	115	**NSYCVF850M115PF**	**NSYCAG291LPF**
	230	**NSYCVF850M230PF**	**NSYCAG291LPF**
	400	**NSYCVF850M400PF**	**NSYCAG291LPF**

ClimaSys CV smart ventilation systems *(1)*

Degree of protection: IP54

Color: RAL 9005 semi-transparent black

Fan flow (m³/h) *(2)*	Voltage (V)	Smart fan reference *(3)*	Smart grid reference *(4)*
34	115	–	**NSYCAG92DG**
34	230	**NSYCVF38M230DG**	**NSYCAG92DG**
74	115	–	**NSYCAG125DG**
68	230	**NSYCVF85M230DG**	**NSYCAG125DG**
142	115	–	**NSYCAG223DG**
151	230	**NSYCVF165M230DG**	**NSYCAG223DG**
259	115	–	**NSYCAG223DG**
259	230	**NSYCVF300M230DG**	**NSYCAG223DG**
502	115	–	**NSYCAG291DG**
522	230	**NSYCVF560M230DG**	**NSYCAG291DG**
638	115	–	**NSYCAG291DG**
783	230	**NSYCVF850M230DG**	**NSYCAG291DG**
731	400	**NSYCVF850M400DG**	**NSYCAG291DG**

(1) Smart fan has to be connected to a controller to relay information and alarms (see table below).
(2) Free flow rate at 50 Hz.
*(3) Supply of **NSYCV●●●DG** fan includes: 1 fan sensor (rpm&Tor measurement), 1 dirt filter sensor.*
*(4) Supply of **NSYCAG●●●DG** grid includes: 1 dirt filter sensor.*





ClimaSys smart ventilation controllers

Voltage (V)	Filterstat controller reference	Thermal hub reference
30 VAC/VDC	**NSYCCOFST30V**	**NSYCCOFSEM8U1**
90-250 VAC	**NSYCCOFST90250V**	**NSYCCOFSEM8U2**
No. of ports	4	8

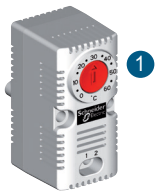


Filterstat communication cable

Black unshielded cable with 2 connectors at each end (material: PVC)

Length (mm)	Cable references
500	–
1000	**NSYCCA100MFST**
1500	–
2000	**NSYCCA200MFST**
3000	**NSYCCA300MFST**
4000	**NSYCCA400MFST**
5000	**NSYCCA500MFST**

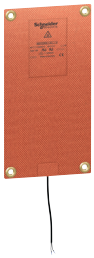
ClimaSys thermal management systems


1


2


3


4


5

1 ClimaSys CC mechanical thermostats				
Type of control	Control of a resistance hearter or alarm		Control of a fan or alarm	
Setting range	0…+60 °C	+32…+140 °F	0…+60 °C	+32…+140 °F
Reference	**NSYCCOTHC**	**NSYCCOTHCF**	**NSYCCOTHO**	**NSYCCOTHOF**
2 ClimaSys CC electronic thermostats, hygrotherm and hygrostat with LED display				
Type of control	Electronic temperature controller	Electronic temperature and humidity controller	Electronic humidity controller	
Setting range	-40 °C…+80 °C			
Reference	**NSYCCOTH30VID** **NSYCCOTH120VID** **NSYCCOTH230VID**	**NSYCCOHYT30VID** **NSYCCOHYT120VID** **NSYCCOHYT230VID**	**NSYCCOHY230VID**	
3 ClimaSys CR insulated resistance heaters, 2 poles				
Power (W)	10		20	
Voltage (V)	110-250 AC	12-24 DC	110-250 AC	12-24 DC
Reference	**NSYCR10WU2C**	**NSYCR10WU1C**	**NSYCR20WU2C**	**NSYCR20WU1C**
4 ClimaSys CR aluminum resistance heaters				
Power (W)	10		20	
Voltage (V)	12-24 DC	110-250 AC	12-24 DC	110-250 AC
Reference	**NSYCR10WU1**	**NSYCR10WU2**	**NSYCR20WU1**	**NSYCR20WU2**
Power (W)	20	55	55	55
Voltage (V)	270-420 AC	12-24 DC	110-250 AC	270-420 AC
Reference	**NSYCR20WU3**	**NSYCR55WU1**	**NSYCR55WU2**	**NSYCR55WU3**

5 ClimaSys CRS ultra-thin resistance heaters						
Power (W)	10		25		50	
Voltage (V)	120 AC	240 AC	120 AC	240 AC	120 AC	240 AC
Inrush current (A)	0.08	0.04	0.21	0.10	0.42	0.21
Height (mm)	130	130	130	130	200	200
Width (mm)	250	250	250	250	320	320
Depth (mm)	1.6	1.6	1.6	1.6	1.6	1.6
Reference	–	**NSYCRS10W240V**	–	**NSYCRS25W240V**	–	**NSYCRS50W240V**

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1884 Boulevard de la Défense
92000 Nanterre
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