

# Control Panel Solutions Catalog

August 2022





# General contents

Harmony™ tower lights and push buttons . . . . .	<b>2</b>
TeSys™ motor control and protection solutions . . . . .	<b>15</b>
Square D™ transformers . . . . .	<b>30</b>
Altistart™ soft starters and Altivar™ variable speed drives . . . . .	<b>32</b>
Harmony™, Square D™ and SE relays . . . . .	<b>35</b>
Modicon™ power supplies . . . . .	<b>47</b>
Zelio™ smart relays . . . . .	<b>53</b>
Modicon™ M221 PLC . . . . .	<b>54</b>
Magelis™ HMI . . . . .	<b>55</b>
Ethernet switches . . . . .	<b>56</b>
Universal enclosures . . . . .	<b>57</b>



# Harmony™ XVC tower lights



## XVC Ø 40/60 mm pre-assembled and pre-cabled tower lights

Pole Mount, 17 mm, on horizontal (IP54) or vertical (IP23) surface							
Operators	Reference	Voltage	LED Color(s)	Base	Flashing	Steady	Sound
40 mm	XVC4B15S	24 V	●		■	■ (1)	Buzzer
	XVC4B3	24 V	● ● ●		–	■	–
	XVC4B35S	24 V	● ● ●	Tower	■	■ (1)	Buzzer
	XVC4B4	24 V	● ● ● ●	Pole	–	■	–
For direct base mounting on horizontal surface (IP54)							
	XVC4B1K	24 V	●		–	■	–
	XVC4B3K	24 V	● ● ●		–	■	–

Pole Mount, 22 mm, on horizontal (IP54) or vertical (IP23) surface							
Operators	Reference	Voltage	LED Color(s)	Base	Flashing	Steady	Sound
60 mm	XVC6B3	24 V	● ● ●		–	■	–
	XVC6B35S	24 V	● ● ●		■	■ (1)	Buzzer
Base Mount, on horizontal surface (IP54) 22 mm, on horizontal (IP54) or vertical (IP23) surface							
	XVC6B15SK	24 V	●		■	■ (1)	Buzzer
	XVC6B35SK	24 V	● ● ●		■	■ (1)	Buzzer
	XVC6B3K	24 V	● ● ●		–	■	–

(1) Flashing function can be simply selected/programmed by wiring

Accessories for Mounting	
Reference	Description
XVCZ02	Metal Mount Base for XVC6
XVCZ11	Metal Mount Base for XVC4
XVCZ12	Plastic Mount Base for XVC6

# Harmony™ XVU signaling solutions

## Harmony XVU components for Ø 60 modular tower lights



### 1 IP65 light modules (for association)

Voltage		24 V							
LED unit type		High brightness							Pulse signal
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow	Multi-color	Multi-color
Reference	Steady	(1)	(1)	XVUC25	XVUC26	XVUC27	XVUC28	XVUC29	-
	Blinking	(1)	XVUC44	XVUC45	XVUC46	XVUC47	XVUC48	-	-
	High flashing	(1)	(1)	(1)	(1)	(1)	(1)	-	-

### 2 IP54 audible units (for association)

Voltage		24 V		
Unit type		Buzzer	Sound	Sound with pulse signal
Color		○ Silver	● Dark gray	
Reference		XVUC9SQ	XVUC9S	XVUC9V (1)

### 3 IP65 body units with top cover (for association)

Voltage		24 VAC/VDC		100...240 VAC	
Color		○ Silver	● Dark gray		○ Silver
Type		-	-	NPN	PNP
Reference		XVUC21BQ	XVUC21B	XVUC21M	XVUC21MP

### Mounting bases for horizontal support (for association)

Base type	Fixing plates				Direct fixing plates	
	With fixed length aluminum pole			With height adjustment aluminum pole (2)		5
	100 mm/3.937 in	400 mm/15.748 in	800 mm/31.496 in			
Color		○ Silver	● Dark gray		○ Silver	● Dark gray
Reference	XVUZ02Q	XVUZ02	XVUZ400	(1)	XVUZ05 (3)	(1) XVUZ01 (4)
	-	-	-	-	-	XVUZ03 (5)
	-	-	-	-	-	XVUZ04 (6)

### 6 Mounting bases for vertical support (for association)

Base type		Fixing plates for mounting on vertical support (aluminum pole + metal bracket - IP42)			
	100 mm	250 mm	400 mm	100 mm	
Color		● Dark gray	● Dark gray	● Dark gray	● Dark gray
Reference		XVUZ100T	(1)	(1)	XVUZ100

(1) Please check with your local distributor for availability. (2) Pole height adjustable from 210 to 385 mm  
 (3) For use with DC body unit only (4) 3-pin mounting (5) 2-pin mounting (6) 4-pin mounting

## Illuminated units for incandescent bulbs or LEDs



Illuminated units with steady light signaling							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Light source (to be ordered separately)	Incandescent bulb 7 W max. or LED	XVBC33	XVBC34	XVBC35	XVBC36	XVBC37	XVBC38
Illuminated units with integral flashing light signaling							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Light source (to be ordered separately)	Incandescent bulb 7 W max., 24 V ~, 24...48 V ☰ or LED	XVBC4B3	XVBC4B4	XVBC4B5	XVBC4B6	(1)	XVBC4B8
	Incandescent bulb 7 W max., 24 V ~, 48...230 V ~ or LED	(1)	XVBC4M4	XVBC4M5	XVBC4M6	(1)	XVBC4M8

## Illuminated units with integral LED



Light source voltage 24 V ☰							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Reference	Steady	XVBC2B3	XVBC2B4	XVBC2B5	XVBC2B6	XVBC2B7	XVBC2B8
	Flashing	(1)	(1)	(1)	(1)	(1)	(1)
Light source voltage 120 V ~							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Reference	Steady	(1)	(1)	(1)	(1)	(1)	(1)
	Flashing	(1)	(1)	(1)	-	-	-

## Illuminated units with integral "flash" discharge tube



Light source voltage 24 V ☰							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Reference	5 Joule "flash" discharge tube	(1)	(1)	(1)	(1)	(1)	(1)
	10 Joule "flash" discharge tube	(1)	XVBC8B4	(1)	(1)	(1)	(1)
Light source voltage 120 V ~							
Color		● Green	● Red	● Orange	● Blue	○ White	● Yellow
Reference	5 Joule "flash" discharge tube	-	(1)	(1)	(1)	(1)	(1)
	10 Joule "flash" discharge tube	(1)	XVBC8G4	(1)	(1)	(1)	(1)

(1) Please check with your local distributor for availability.

# Harmony™ XVB signaling solutions and Harmony™ XVR3 beacon lights



## 1 Audible units

Unit type	Buzzer, 90 dB at 1 m	
Unit description	Adjustable: 70 or 90 dB, continuous or intermittent	
Voltage	12...48 V DC and AC	120...230 V ~
Reference	XVBC9B	XVBC9M

## 2 Base units (for direct or tube fixing)

Unit type	Base unit + cover with bottom or side cable entry	Base unit only with bottom or side cable entry	Base unit + cover with side cable entry	Base unit + cover with bottom entry, pre-cabled (length 1 m), and equipped with M12 end connector
Application	Use with banks without discharge tube unit (order separately)	Use with banks with discharge tube unit (order separately)	All types of banks. Can be used with AS-interface connection	
Reference	XVBC21	XVBC07	XVBC21A	(1)

## Accessories specific to XVBC indicator banks

Unit type	Cover only 3	Fixing plate for use on horizontal support	Fixing plate for use on vertical support
Material	Plastic	Plastic	Zamak
Application	XVBC2, XVBC3, XVBC4, XVBC5, and XVBC9	Ø 25 mm aluminum support tube	Base unit (direct mounting), fixing plate XVBZ01 or fixing bases XVBZ0
Reference	XVBC081	(1)	(1) 4

Unit type	Fixing bases comprising Ø 25 mm aluminum support tube glued into a black plastic fixing plate					
Color	Black aluminum	Aluminum	Black aluminum	Aluminum	Black aluminum	Aluminum
Height under base unit (mm)	80		380		780	
Reference	XVBZ02	XVBZ02A	XVBZ03	(1)	XVBZ04	(1)

Unit type	Support tube concealment cover			Adapter for side entry through base unit	
Material	ABS	ABS	ABS	ABS	
Application	Support tubes XVBZ02, XVBZ02A	Support tubes XVBZ03, XVBZ03A	Support tubes XVBZ04, XVBZ04A	13P cable gland	
Reference	(1)	(1)	XVBC040	XVBC14	

Unit type	Incandescent bulbs BA 15d base fitting					
Voltage	12 V	24 V	48 V	120 V	230 V	
Power	7 W	6.5 W	6 W	7 W	7 W	
Reference	(1)	DL1BEB	(1)	DL1BEG	(1)	

Unit type	LEDs BA 15d base fitting					
Color	● Green	● Red	● Orange	● Blue	● Yellow	
Voltage	24 V ~					
Reference	DL1BDB3	DL1BDB4	DL1BDB5	DL1BDB6	DL1BDB8	

(1) Please check with your local distributor for availability.

# Harmony™ XB4 metal push buttons



## 1 Push buttons with flush push, unmarked

Color	○ White	● Black	● Green	● Red	● Yellow	● Blue
Contact	NO		NC		NO	
Connection	Screw clamp terminals					
Complete product	XB4BA11	XB4BA21	XB4BA31	(1)	XB4BA51	XB4BA61
Head	ZB4BA1	ZB4BA2	ZB4BA3	ZB4BA4	ZB4BA5	ZB4BA6
Complete flush mounting head in 30.5 mm diameter hole	XB4FA11	XB4FA21	XB4FA31	XB4FA42	XB4FA51	XB4FA61
Flush mounting head in diam 30.5 mm hole	ZB4FA1	ZB4FA2	ZB4FA3	ZB4FA4	ZB4FA5	ZB4FA6
Body	ZB4BZ101		ZB4BZ102		ZB4BZ101	

## 2 Booted push buttons with flush push, unmarked

Complete product	–	XB4BP21	XB4BP31	(1)	XB4BP51	XB4BP61
Head	(1)	ZB4BP2	ZB4BP3	ZB4BP4	ZB4BP5	ZB4BP6
Body	ZB4BZ101		ZB4BZ102		ZB4BZ101	

## 3 Push buttons 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	(1)	(1)	XB4BA3311	XB4BL4325 (2)	–	–
Head	ZB4BA334	ZB4BA335	ZB4BA331	ZB4BL432 (2)	ZB4BA333	ZB4BL434
Complete flush mounting head in 30.5 mm diameter hole	(1)	(1)	(1)	(1) (2)	–	–
Flush mounting head in 30.5 mm diameter hole	(1)	(1)	ZB4FA331	ZB4FL432 (2)	ZB4FA333	ZB4FL434
Body	ZB4BZ101		ZB4BZ105		ZB4BZ101	ZB4BZ105



## 4 Ø 40 trigger action Emergency stop mushroom head push buttons

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

## 5 Ø 40 mushroom head push button, 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 (3)

Color of the illuminated ring	○ White / ● Red	● Red			
Power supply	24 VAC/VDC		110... 120 VAC	230... 240 VAC	
Complete product for standard mounting	EMERGENCY STOP	ZBY9W3B330	ZBY9W2B330	ZBY9W2G330	ZBY9W2M330

(1) Please check with your local distributor for availability.

(2) With projecting push

(3) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo ® has been added.



# Harmony™ XB4 metal push buttons



## 1 Pilot lights with integral LED

Color		○ White	● Green	● Red	● Orange	● Blue
Connection		Screw clamp terminals				
Complete product	24 VAC/DVC	XB4BVB1	XB4BVB3	XB4BVB4	XB4BVB5	XB4BVB6
	110...120 VAC	XB4BVG1	XB4BVG3	XB4BVG4	XB4BVG5	XB4BVG6
	230...240 VAC	(1)	XB4BVM3	XB4BVM4	XB4BVM5	(1)

## Illuminated push buttons with flush push and integral LED

Color		○ White	● Green	● Red	● Orange	● Blue
Contact		NO + NC				
Connection		Screw clamp terminals				
Complete product	24 VAC/DVC	XB4BW31B5	XB4BW33B5	XB4BW34B5	XB4BW35B5	XB4BW36B5
	110...120 VAC	XB4BW31G5	XB4BW33G5	XB4BW34G5	XB4BW35G5	XB4BW36G5
Complete flush mounting head in diam 30.5 mm hole	24 VAC/DVC	XB4FW31B5	XB4FW33B5	XB4FW34B5	XB4FW35B5	XB4FW36B5
	110...120 VAC	XB4FW31G5	XB4FW33G5	XB4FW34G5	XB4FW35G5	XB4FW36G5
	230...240 VAC	XB4FW31M5	XB4FW33M5	XB4FW34M5	XB4FW35M5	XB4FW36M5



## 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	(1)	XB4BD25	XB4BD33	XB4BD53
	Long black handle	XB4BJ21	–	–	XB4BJ33	XB4BJ53
	Key switch (No. 455)	XB4BG21	XB4BG61	–	XB4BG33	–
Complete flush mounting head in diam 30.5 mm hole	Black	XB4FD21	(1)	XB4FD25	XB4FD33	XB4FD53
	Long black handle	XB4FJ21	–	–	XB4FJ33	XB4FJ53
	Key switch (No. 455)	XB4FG21	XB4FG61	–	XB4FG33	–

(1) Please check with your local distributor for availability.

# Harmony™ XB5 plastic push buttons



## 1 Push buttons with flush push, unmarked

Color	○ White	● Black	● Green	● Red	● Yellow	● Blue
Contact	NO		NC		NO	
Connection	Screw clamp terminals					
Complete product for standard mounting	(1)	XB5AA21	XB5AA31	XB5AA42	XB5AA51	(1)
Standard mounting head	ZB5AA1	ZB5AA2	ZB5AA3	ZB5AA4	ZB5AA5	ZB5AA6
Complete flush mounting head in diam 30.5 mm hole	XB5FA11	XB5FA21	XB5FA31	(1)	XB5FA51	XB5FA61
Flush mounting head in diam 30.5 mm hole	ZB5FA1	ZB5FA2	ZB5FA3	ZB5FA4	ZB5FA5	ZB5FA6
Body	ZB5AZ101		ZB5AZ102		ZB5AZ101	

## 2 Booted push buttons with flush push, unmarked

Complete product for standard mounting	–	XB5AP21	XB5AP31	(1)	XB5AP51	XB5AP61
Standard mounting head	–	(1)	(1)	(1)	ZB5AP5	ZB5AP6
Body	–	ZB5AZ101		ZB5AZ102	ZB5AZ101	

## 3 Push buttons 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	(1)	(1)	XB5AA3311	XB5AL4322 (2)	–	–
Standard mounting head	ZB5AA334	ZB5AA335	ZB5AA331	ZB5AL432 (2)	ZB5AA333	ZB5AL434
Complete flush mounting head in diam 30.5 mm hole	(1)	(1)	(1)	(1) (2)	–	–
Flush mounting head in diam 30.5 mm hole	(1)	(1)	(1)	(1) (2)	(1)	(1) (2)
Body	ZB5AZ101		ZB5AZ102		ZB5AZ101	ZB5AZ102



## 4 Ø 40 trigger action Emergency stop mushroom head push buttons

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

## 5 Ø 40 mushroom head push buttons, 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	(1)	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	
Connection	Screw clamp terminals				
Complete product for standard mounting	(1)	(1)	–	–	
Standard mounting head	ZB5AS84W3B		ZB5AS84W2B	ZB5AS84W2G	ZB5AS84W2M
Body	ZB5AZ141	ZB5AZ105	ZB5AZ141	ZB5AZ105	ZB5AZ141

## 7 Illuminated ring for Emergency stop (3)

Color of the illuminated ring	○ White / ● Red	● Red			
Power supply	24 VAC/VDC		110-120 VAC	230-240 VAC	
Complete product for standard mounting	EMERGENCY STOP	ZBY9W3B330	ZBY9W2B330	ZBY9W2G330	ZBY9W2M330

(1) Please check with your local distributor for availability.

(2) With projecting push

(3) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo ® has been added.

# Harmony™ XB5 plastic push buttons



## 1 Pilot lights with integral LED

Color		○ White	● Green	● Red	● Orange	● Blue
Connection		Screw clamp terminals				
Complete product for standard mounting	24 VAC/VDC	<b>XB5AVB1</b>	<b>XB5AVB3</b>	<b>XB5AVB4</b>	<b>XB5AVB5</b>	<b>XB5AVB6</b>
	110...120 VAC	<b>XB5AVG1</b>	<b>XB5AVG3</b>	<b>XB5AVG4</b>	<b>XB5AVG5</b>	<b>XB5AVG6</b>
	230...240 VAC	<b>XB5AVM1</b>	(1)	(1)	(1)	(1)
Monolithic product for standard mounting	24 VAC/VDC	(1)	<b>XB5EVB3</b>	<b>XB5EVB4</b>	(1)	(1)
	110...120 VAC	(1)	<b>XB5EVG3</b>	<b>XB5EVG4</b>	<b>XB5EVG5</b>	<b>XB5EVG6</b>
	230...240 VAC	(1)	(1)	<b>XB5EVM4</b>	(1)	(1)
Complete flush mounting head in diam 30.5 mm hole	24 VAC/VDC	(1)	(1)	(1)	(1)	(1)
	110...120 VAC	(1)	(1)	(1)	(1)	(1)
	230...240 VAC	(1)	(1)	(1)	(1)	(1)

## 2 Illuminated push buttons with flush push, with integral LED

Color		○ White	● Green	● Red	● Orange	● Blue
Contact		NO + NC				
Connection		Screw clamp terminals				
Complete product for standard mounting	24 VAC/VDC	<b>XB5AW31B5</b>	<b>XB5AW33B5</b>	<b>XB5AW34B5</b>	<b>XB5AW35B5</b>	<b>XB5AW36B5</b>
	110...120 VAC	<b>XB5AW31G5</b>	<b>XB5AW33G5</b>	<b>XB5AW34G5</b>	<b>XB5AW35G5</b>	<b>XB5AW36G5</b>
	230...240 VAC	(1)	(1)	(1)	(1)	(1)
Complete flush mounting head in diam 30.5 mm hole	24 VAC/VDC	<b>XB5FW31B5</b>	<b>XB5FW33B5</b>	<b>XB5FW34B5</b>	<b>XB5FW35B5</b>	<b>XB5FW36B5</b>
	110...120 VAC	<b>XB5FW31G5</b>	<b>XB5FW33G5</b>	<b>XB5FW34G5</b>	<b>XB5FW35G5</b>	<b>XB5FW36G5</b>
	230...240 VAC	<b>XB5FW31M5</b>	<b>XB5FW33M5</b>	<b>XB5FW34M5</b>	<b>XB5FW35M5</b>	<b>XB5FW36M5</b>



## 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	<b>XB5AD21</b>	(1)	<b>XB5AD25</b>	<b>XB5AD33</b>	<b>XB5AD53</b>
	Long black handle	<b>XB5AJ21</b>	-	-	<b>XB5AJ33</b>	<b>XB5AJ53</b>
	Key switch (No. 455)	<b>XB5AG21</b>	(1)	-	<b>XB5AG33</b>	-
Complete flush mounting head in diam 30.5 mm hole	Black handle	<b>XB5FD21</b>	(1)	<b>XB5FD25</b>	<b>XB5FD33</b>	<b>XB5FD53</b>
	Long black handle	<b>XB5FJ21</b>	-	-	<b>XB5FJ33</b>	<b>XB5FJ53</b>
	Key switch (No. 455)	<b>XB5FG21</b>	<b>XB5FG61</b>	-	<b>XB5FG33</b>	-

## 4 Double and triple-headed push buttons

Type	1 flush 1 projecting	2 flush	1 flush 1 projecting	2 flush	2 flush + 1 red central projecting
Contact	NO + NC		NO + NC with 24V pilot light		2 NO + NC
Connection		Screw clamp terminals			
Complete product	<b>XB5AL73415</b>	-	(1)	-	(1)   -
Head	<b>ZB5AL7341</b>	(1)	<b>ZB5AW7L3741</b>	<b>ZB5AW7A1721</b>	(1)   (1)
Body	<b>ZB5AZ105</b>		<b>ZB5AZ105 + ZBVB1</b>		(1)

(1) Please check with your local distributor for availability.

# Harmony™ XB4 and XB5 push buttons: other functions



1 Buzzer					
Color	Black		Red illumination	Yellow illumination	
Wiring connector	Screw clamp terminals				
Monolithic product	24 VAC/VDC	<b>XB5KSB</b>	<b>XB5KS2B4</b>	<b>XB5KS2B8</b>	
	110...120 VAC/VDC	<b>XB5KSG</b>	<b>XB5KS2G4</b>	<b>XB5KS2G8</b>	
	230...240 VAC	(1)	(1)	(1)	
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	<b>IP20</b>	<b>IP20</b>	<b>IP65/IP67</b>	<b>IP65/IP67</b>	<b>IP65/IP67/IP69K</b>
Reference	<b>XB5PUSB3</b>	<b>XB5PRJ45</b>	<b>ZBSP1</b>	<b>ZBSP2</b>	(1)



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	<b>XB4BD912R1K</b>	<b>XB4BD912R4K7</b>	<b>XB4BD912R10K</b>
Resistance (in kΩ)	47	100	470
Reference	<b>XB4BD912R47K</b>	<b>XB4BD912R100K</b>	<b>XB4BD912R470K</b>
6 XB5 complete potentiometers			
Description	Panel-mounted complete potentiometers in 22.5 mm hole		
Connection	Screw terminals		
Resistance (in kΩ)	1	4.7	10
Reference	<b>XB5AD912R1K</b>	<b>XB5AD912R4K7</b>	<b>XB5AD912R10K</b>
Resistance (in kΩ)	47	100	470
Reference	<b>XB5AD912R47K</b>	<b>XB5AD912R100K</b>	<b>XB5AD912R470K</b>

(1) Please check with your local distributor for availability.

# Harmony™ XB7 Ø 22 monolithic push buttons



Flush mounting spring return push buttons, unmarked						
Color	White	Black	Green	Red	Yellow	Blue
Contact	NO			NO + NC		
Connection	Screw clamp terminals					
Complete product	(1)	XB7NA21	XB7NA31	(1)	(1)	(1)



Flush mounting spring return push buttons, 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	(1)	(1)	(1)	(1)	XB7NA3133	XB7NA4234



Ø 40 trigger action Emergency stop mushroom head push buttons			
Color	Red		
Contact	NO + NC Push-pull	NO + NC Turn to release	2 NC Key release
Connection	Screw clamp terminals		
Complete product	XB7NT845	XB7NS8445	(1)



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	(1)	(1)	(1)	(1)	(1)



Flush mounting illuminated push buttons with integral LED							
Color	Green	Red	Orange	Blue	Clear	Yellow	
Contact	NO + NC						
Connection	Screw clamp terminals						
Complete product	24 VAC/VDC	XB7NW33B1	XB7NW34B1	(1)	XB7NW36B1	(1)	(1)
	120 VAC	(1)	XB7NW34G1	-	(1)	(1)	(1)
	230 VAC	(1)	(1)	(1)	-	(1)	(1)



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	(1)	(1)

(1) Please check with your local distributor for availability.

# Harmony™ XB4, XB5, and XB7 Ø 22 mm metal, plastic, and monolithic control devices and accessories

Components and accessories for Ø 22 mm control devices		
	Description	Reference
Mounting collars	Metal mounting collar (for XB4 units)	ZB4BZ009
	Plastic mounting collar (for XB5 units)	ZB5AZ009
Contact blocks	N.O. Contact block	ZBE101
	N.C. Contact block	ZBE102
Light modules	24 VAC/DC Red LED light module	ZBVB4
	24 VAC/DC Green LED light module	ZBVB3
	24 VAC/DC Orange LED light module	ZBVB5
	24 VAC/DC White LED light module	ZBVB1
	120 VAC/DC Red LED light module	ZBVG4
	120 VAC/DC Green LED light module	ZBVG3
	120 VAC/DC Orange LED light module	ZBVG5
	120 VAC/DC White LED light module	ZBVG1
Legend plates	"Emergency Stop" yellow legend plate	ZBY9320
	"HAND OFF AUTO" legend plate	ZBY2387
	"START" black legend plate	ZBY2303
	"STOP" black legend plate	ZBY2304
	Blank black legend plate	ZBY2101
	"Off/On" black legend plate	ZBY2367
Boots and guards	Estop yellow metal guard	ZBZ1605
	Estop yellow round guard	ZB4BZ1905
	Black push button padlock	ZB4BZ62
	Plastic blanking plug	ZB5SZ3
	Metal blanking plug	ZB4SZ3
	Selector switch black boot, standard knob	ZBDD2
	Push button clear boot for flush head	ZBPA
	Push button clear boot extended head	ZBP0
Data port covers	Black plastic cover for data ports	ZBSP1
	Transparent plastic cover for data ports	ZBSP2

# Harmony™ 9001K and 9001SK Ø 30 mm metal and plastic control devices



	Assembled units			Complete unit = operator + contact block(s) + light modules (illuminated units only) (See page 7 for contact blocks.)		
	Description	Metal (9001K)	Plastic (9001SK)	Description	Metal (9001K)	Plastic (9001SK)
<b>Non-illuminated push button</b>	Black, 1 N.O. + 1 N.C. contact block	9001KR1BH13	9001SKR1BH13	Black push button head, (operator only)	9001KR1B	9001SKR1B
	Green, 1 N.O. + 1 N.C. contact block	9001KR1GH13	9001SKR1GH13	Green push button head, (operator only)	9001KR1G	9001SKR1G
	Red, 1 N.O. + 1 N.C. contact block	9001KR1RH13	9001SKR1RH13	Red push button head, (operator only)	9001KR1R	9001SKR1R
	Universal (Red/green/black), 1 N.O. + 1 N.C. contact block	9001KR1UH13	9001SKR1UH13	Universal (Red/green/black) (operator only)	9001KR1U	9001SKR1U
<b>Illuminated (LED) push button</b>	Red, Clear guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Red LED light module, 24 VAC/DC	9001KM35LR	9001KM35LR
				Red push button lens	9001R7	9001R7
	Green, Clear guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Green LED light module, 24 VAC/DC	9001KM35LG	9001KM35LG
				Green push button lens	9001G7	9001G7
	Yellow, Clear guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Yellow LED light module, 24 VAC/DC	9001KM35LY	9001KM35LY
				Yellow push button lens	9001Y7	9001Y7
	Red, Clear guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Red LED light module, 120 VAC/DC	9001KM38LR	9001KM38LR
				Red push button lens	9001R7	9001R7
	Green, Clear guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Green LED light module, 120 VAC/DC	9001KM38LG	9001KM38LG
				Green push button lens	9001G7	9001G7
	Yellow, Clear guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, clear guard (operator only)	9001K1L	9001SK1L
				Yellow LED light module, 120 VAC/DC	9001KM38LY	9001KM38LY
				Yellow push button lens	9001Y7	9001Y7
	Red, No guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L
				Red LED light module, 24 VAC/DC	9001KM35LR	9001KM35LR
				Red push button lens	9001R7	9001R7
	Green, No guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L
				Green LED light module, 24 VAC/DC	9001KM35LG	9001KM35LG
				Green push button lens	9001G7	9001G7
Yellow, No guard, 24 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L	
			Yellow LED light module, 24 VAC/DC	9001KM35LY	9001KM35LY	
			Yellow push button lens	9001Y7	9001Y7	
Red, No guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L	
			Red LED light module, 120 VAC/DC	9001KM38LR	9001KM38LR	
			Red push button lens	9001R7	9001R7	
Green, No guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L	
			Green LED light module, 120 VAC/DC	9001KM38LG	9001KM38LG	
			Green push button lens	9001G7	9001G7	
Yellow, No guard, 120 VAC/DC, N.O. + N.C. contact block	(1)	(1)	Illuminated push button body, no guard (operator only)	9001K2L	9001SK2L	
			Yellow LED light module, 120 VAC/DC	9001KM38LY	9001KM38LY	
			Yellow push button lens	9001Y7	9001Y7	
<b>Emergency stops</b>	Turn-to-Release mushroom button, 2 N.O. + 2 N.C. contact blocks	9001KR16H2	9001SKR16H2	Turn-to-Release mushroom button (operator only)	9001KR16	–
<b>Mushroom head push buttons</b>	Red, push-pull, 1 N.O. + 1 N.C. contact block	9001KR9RH13	9001SKR9RH13	Red, push-pull mushroom body	9001KR9	9001SKR9
				Red, mushroom button	9001R22	9001R22
	Black, push-pull, 1 N.O. + 1 N.C. contact block	9001KR9BH13	9001SKR9BH13	Black, push-pull mushroom body	9001KR9	9001SKR9
				Black, mushroom button	9001B23	9001B23

(1) Please check with your local distributor for availability.

# Harmony™ 9001K and 9001SK Ø 30 mm metal and plastic control devices and accessories



		Assembled units		Complete unit = operator + contact block(s) + light modules (illuminated units only) (See page 7 for contact blocks.)		
	Description	Metal (9001K)	Plastic (9001SK)	Description	Metal (9001K)	Plastic (9001SK)
Pilot lights (LED)	Red, 24 VAC/DC	9001KP35LRR9	9001SKP35LRR9	Red pilot light (operator only)	9001KP	9001SKP
				Red pilot light lens	9001R9	9001R9
				Red LED light module, 24 VAC/DC	9001KM35LR	9001KM35LR
	Green, 24 VAC/DC	(1)	(1)	Green pilot light (operator only)	9001KP	9001SKP
				Green pilot light lens	9001G9	9001G9
				Green LED light module, 24 VAC/DC	9001KM35LG	9001KM35LG
	Yellow, 24 VAC/DC	9001KP35LYY9	9001SKP35LYY9	Yellow pilot light (operator only)	9001KP	9001SKP
				Yellow pilot light lens	9001Y9	9001Y9
				Yellow LED light module, 24 VAC/DC	9001KM35LY	9001KM35LY
	Red, 120 VAC/DC	9001KP38LRR9	9001SKP38LRR9	Red pilot light (operator only)	9001KP	9001SKP
				Red pilot light lens	9001R9	9001R9
				Red LED light module, 120 VAC/DC	9001KM38LR	9001KM38LR
Green, 120 VAC/DC	9001KP38LGG9	9001SKP38LGG9	Green pilot light (operator only)	9001KP	9001SKP	
			Green pilot light lens	9001G9	9001G9	
			Green LED light module, 120 VAC/DC	9001KM38LG	9001KM38LG	
Yellow, 120 VAC/DC	(1)	(1)	Yellow pilot light (operator only)	9001KP	9001SKP	
			Yellow pilot light lens	9001Y9	9001Y9	
			Yellow LED light module, 120 VAC/DC	9001KM38LY	9001KM38LY	
Selector switches	2-Position, maintained, 1 N.O. + 1 N.C. contact block	9001KS11BH13	9001SKS11BH13	2-Position, maintained (operator only)	9001KS11B	9001SKS11B
	2-Position, spring return, 1 N.O. + 1 N.C. contact block	(1)	(1)	2-Position, spring return (operator only)	9001KS34B	9001SKS34B
	3-Position, maintained, 1 N.O. + 1 N.C. contact block	9001KS43BH13	9001SKS43BH13	3-Position, maintained (operator only)	9001KS43B	9001SKS43B
	3-Position, spring return, 1 N.O. + 1 N.C. contact block	(1)	(1)	3-Position, spring return (operator only)	9001KS53B	9001SKS53B

(1) Please check with your local distributor for availability.


## Components and accessories for Ø 30 mm control devices

	Description	Reference
<b>Contact blocks</b>	1 N.O. + 1 N.C. contact block	9001KA1
<b>Legend plates</b>	Blank standard black legend plate for metal operators	9001KN200
	Blank large black legend plate for metal operators	9001KN300
	"Emergency Stop" yellow legend plate for metal operators	9001KN9330
	"Stop" red legend plate for metal operators	9001KN202
	"START" black legend plate for metal operators	9001KN201
	"HAND OFF AUTO" black legend plate for metal operators	9001KN260
	"OFF ON" black legend plate for metal operators	9001KN244
	1 3/4" Blank black legend plate for plastic operators	9001KN200BP
	2 1/4" Blank black legend plate for plastic operators	9001KN100BP
	"Emergency Stop" yellow legend plate for plastic operators	9001KN9330
	"Stop" red legend plate for plastic operators	9001KN202RP
	"START" black legend plate for plastic operators	9001KN201BP
	"HAND OFF AUTO" black legend plate for plastic operators	9001KN260BP
"OFF ON" black legend plate for plastic operators	9001KN244BP	
<b>Boots and guards</b>	Gloved hand selector switch knob–black	9001B25
	Standard push button boot–black	9001KU1
	Standard push button boot–red	9001KU2
	Standard push button boot–green	9001KU5
	Standard push button boot–clear	9001KU7
	Selector switch boot–clear	9001KU17

(1) Please check with your local distributor for availability.



# TeSys™ motor control and protection solutions

	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Two-component Type F combination motor controller

Motor HP 460 V	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10	15	20	25	30	40
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A	14 A	21 A	27 A	34 A	40 A	52 A
SCCR 480 Y/277 V	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	50 kA (2)	50 kA (2)	50 kA (2)	65 kA	65 kA	65 kA	65 kA
Manual motor protector (1)	GV2P06	GV2P07	GV2P07	GV2P08	GV2P08	GV2P10	GV2P14	GV2P16	GV2P20	GV2P21	GV3P32	GV3P40	GV3P50	GV3P65
Overload range	1-1.6 A	1.6-2.5 A	1.6-2.5 A	2.5-4 A	2.5-4 A	4-6.3 A	6-10 A	9-14 A	13-18 A	17-23 A	23-32 A	30-40 A	37-50 A	48-65 A
Contactor (3)	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D12	LC1D18	LC1D25	LC1D25	LC1D40A	LC1D40A	LC1D50A	LC1D65A

Notes: (1) Type F combination requires use of GV1G09 line spacer for GV2 or GV3G66 line spacer for GV3. Permissible to use GV2G busbars with GV1G09 for the GV2 to reduce wiring installation efforts. (2) Type F combination SCCR is 42 kA 480Y / 277V when using GVG2 busbars with GV1G09 on GV2P16 to GV2P21. (3) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example, LC1D09G7 includes a 120 VAC coil.

## Two-component motor protective circuit breaker + contactor

Motor HP 460 V	50	60	75	100	125	150	200	250	300	400	500
Full load current (NEC Table 430.250)	65 A	77 A	96 A	124 A	156 A	180 A	240 A	302 A	361 A	477 A	590 A
SCCR 480 Y/277 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Motor protective circuit breaker	GV4PB115S	GV4PB115S	GV5PB150S	GV5PB250S	GV5PB250S	GV5PB250S	GV6PB400S	GV6PB400S	GV6PB600S	GV6PB600S	GV6PB600S
Overload range	65-115 A	65-115 A	58-130 A	114-217 A	114-217 A	114-217 A	190-348 A	190-348 A	312-520 A	312-520 A	312-520 A
Contactor (3)	LC1D80	LC1D80	LC1D115	LC1D150	LC1G185	LC1G225	LC1G265	LC1G330	LC1G400	LC1G500	LC1G630

Notes: (3) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example, LC1D09G7 includes a 120 VAC coil.

**TABLE A:**  
Voltage coil codes for TeSys LC1 Contactors

LC1 Contactor	24 V AC	24 V DC	120 V AC	100-250 V AC/DC
D09 – D32	B7	BL	G7	KUE
D40A – D65A	B7	BBE	G7	KUE
D80 – D150	B7	BD	G7	
G115 – G800	BEEA	BEEA		KUEN

Consult the Schneider Electric Digest for more product selection options and information.

## Type E combination motor controller



Motor HP 460 V	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10	15	20
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A	14 A	21 A	27 A
Base (1)	LUB12	LUB12	LUB12	LUB12	LUB12	LUB12	LUB12	LUB32	LUB32	LUB32	LUB32
Trip unit (2)	LUCA1X	LUCA05	LUCA05	LUCA05	LUCA12	LUCA12	LUCA12	LUCA18	LUCA32	LUCA32	LUCA32
Overload range	0.3–1.4 A	1.25–5 A	1.25–5 A	1.25–5 A	3–12 A	3–12 A	3–12 A	4.5–18 A	8–32 A	8–32 A	8–32 A
SCCR 480 Y/277 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA

Notes: (1) Type E combination requires use of LU9SP0 line spacer or GV1G09 line spacer. Permissible to use GV2G busbars with GV1G09 to reduce wiring installation efforts. (2) Complete the contactor part number by adding the coil voltage suffix from TABLE B. For example, LUCA12FU includes a 120 VAC coil.

**TABLE B:**  
Voltage coil codes for TeSys Ultra Starters

	24 V	24 V	120–240 V
	AC	DC	AC/DC
LUC Trip units	B	BL	FU

# TeSys™ motor control and protection solutions

## Accessories for TeSys™ Deca contactors (9 to 150 amps)



Auxiliary contacts for LC1 D09–D150	4 NC top mount	LADN04
	2 NO 2 NC top mount	LADN22
	3 NO 1 NC top mount	LADN31
	4 NO top mount	LADN40
	1 NO 1 NC side mount	LAD8N11
	2 NO side mount	LAD8N20
RC coil suppressor (1)	For LC1 D09–D32 110–240 VAC	LAD4RCU
Reversing kits for LC1 D09–D32	Without electrical interlock	LAD9R1
	With electrical interlock	LAD9R1V
Reversing kits for LC1 D40A–D65A	Without electrical interlock	LAD9R3
Pneumatic time delay for LC1 D09–D150	On-delay timer 0.1 to 30 s	LADT2

Note: (1) Built-in on DC and dual coil (AC/DC) versions.

## Accessories for TeSys Deca GV manual motor protectors




Connection accessories	Line Spacer for GV2	GV1G09
	Busbars for feeding 3 GV2 starters	GV2G345
	Busbars for feeding 4 GV2 starters (54 mm spacing)	GV2G454
	Connection block for GV2 and LC1 D09–D32	GV2AF3
Auxiliary contacts	1 NO 1 NC front mount for GV2 or 3	GVAE11
	1 NO 1 NC side mount for GV2 or 3	GVAN11
Enclosures	NEMA® 1 surface mount (CSA listed)	GV2MC01
	NEMA 12/4 surface mount (CSA listed)	GV2MC02

## Accessories for TeSys Ultra motor starters



Auxiliary contacts	Ready/fault contact status	LUA1C20
	1 NO 1 NC contact	LUFN11
	2 NO contact	LUFN20
	Line spacer	LU9SP0
	Line spacer for use with GV2G busbars	GV1G09
	Busbars for feeding 3 GV2 starters	GV2G345

# TeSys™ motor control and protection solutions

	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Circuit breaker + contactor + overload relay

Motor HP 460 V	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A	14 A
Circuit breaker (1)	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36025	BJL36030
Interrupting rating 480 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Ampacity	15 A	15 A	15 A	15 A	15 A	15 A	15 A	25 A	30 A
Contactor (2)	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D12	LC1D18
SCCR with breaker	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA
Thermal overload class 10	LRD06	LRD07	LRD07	LRD08	LRD08	LRD10	LRD12	LRD16	LRD21
Overload range	1–1.6 A	1.6–2.5 A	1.6–2.5 A	2.5–4 A	2.5–4 A	4–6 A	5.5–8 A	9–13 A	12–18 A
SCCR with breaker	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Electronic overload	LR9D02	LR9D02	LR9D08	LR9D08	LR9D08	LR9D08	LR9D32	LR9D32	LR9D32
Overload range	0.4–2 A	0.4–2 A	1.6–8 A	1.6–8 A	1.6–8 A	1.6–8 A	6.4–32 A	6.4–32 A	6.4–32 A
SCCR with breaker	5 kA	5 kA	10 kA	10 kA	10 kA	10 kA	65 kA	65 kA	65 kA

Notes: (1) For alternate interrupting ratings at 480Y/277V, replace the “J” in the part number with “D” for 18 kA, or “G” for 35 kA. (2) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example, LC1D09G7 includes a 120 VAC coil.

**TABLE A:**  
Voltage coil codes for TeSys LC1 Contactors

	24 V	24 V	120 V	100–250 V
LC1 Contactor	AC	DC	AC	AC/DC
D09 – D32	B7	BL	G7	KUE
D40A – D65A	B7	BBE	G7	KUE
D80 – D150	B7	BD	G7	
G115 – G800	BEEA	BEEA		KUEN

Consult the Schneider Electric Digest for more product selection options and information.

# TeSys™ motor control and protection solutions

## Circuit breaker + contactor + overload relay



Motor HP 460 V	15	20	25	30	40	50	60	75	100
Full load current (NEC Table 430.250)	21 A	27 A	34 A	40 A	52 A	65 A	77 A	96 A	124 A
Circuit breaker (1)	BJL36045	BJL36060	BJL36070	BJL36080	BJL36110	BJL36125	HJL36150	JJL36200	JJL36250
Interrupting rating 480 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Ampacity	45 A	60 A	70 A	80 A	110 A	125 A	150 A	200 A	250 A
Contactor (2)	LC1D25	LC1D32	LC1D40A	LC1D40A	LC1D50A	LC1D80	LC1D80	LC1D115	LC1D150
SCCR with breaker	85 kA	85 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Thermal overload class 10	LRD22	LRD32	LRD340	LRD350	LRD365	LRD3361	LRD3363	LRD4365	LRD4369
Overload range	16–24 A	23–32 A	30–40 A	37–50 A	48–65 A	55–70 A	63–80 A	80–104 A	110–140 A
SCCR with breaker	65 kA	65 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA

Notes: (1) 65 kA interrupt rating shown. For alternate interrupting ratings at 480Y/277V, replace the “J” in the part number with “D” for 18 kA (B, J and J frame only), or “G” for 35 kA. See Digest for accessories, alternate interrupt ratings and options. (2) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example, LC1D09G7 includes a 120 VAC coil.

## Circuit breaker + contactor + overload relay



Motor HP 460 V	100	125	150	200	250	300	400	500
Full load current (NEC Table 430.250)	124 A	156 A	180 A	240 A	302 A	361 A	477 A	590 A
Circuit breaker (1)	JJL36250	LJL36300	LJL36400	LJL36500	LJL36600	MJL36800	PJL36100	PJL36100
Interrupting rating 480 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Ampacity	250 A	300 A	400 A	500 A	600 A	800 A	1000 A	1000 A
Contactor	LC1G150	LC1G185	LC1G225	LC1G265	LC1G330	LC1G630	LC1G630	LC1G630
SCCR with breaker	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Electronic overload	LR9G225	LR9G225	LR9G225	LR9G500	LR9G500	LR9G630	LR9G630	LR9G630
Overload range	57–225 A	57–225 A	57–225 A	125–500 A	125–500 A	160–630 A	160–630 A	160–630 A
SCCR with breaker	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA

Notes: (1) 65 kA interrupt rating shown. For alternate interrupting ratings at 480Y/277V, replace the “J” in the part number with “D” for 18 kA (B, J and J frame only), or “G” for 35 kA. See Digest for accessories, alternate interrupt ratings and options. (2) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example, LC1D09G7 includes a 120 VAC coil.


## Accessories for TeSys Deca contactors and overload relays



Auxiliary contacts for LC1 D09–D150	4 NC top mount	LADN04
	2 NO 2 NC top mount	LADN22
	3 NO 1 NC top mount	LADN31
	4 NO top mount	LADN40
	1 NO 1 NC side mount	LAD8N11
	2 NO side mount	LAD8N20
	Surge suppressor (1)	For LC1 D09–D32 110–240 VAC
Reversing kits for LC1 D09–D32	Without electrical interlock	LAD9R1
	With electrical interlock	LAD9R1V
Reversing kits for LC1 D40A–D65A	Without electrical interlock	LAD9R3
Pneumatic time delay for LC1 D09–D150	On-delay timer 0.1 to 30 s	LADT2
Separate mount adapter for overload relay	For LRD01–35 and LR3D01-35	LAD7B10
	For LRD3, LR3D3 and LR2D35	LA7D3064






Note: (1) Built-in on the DC and dual coil (AC/DC) versions.

# TeSys™ motor control and protection solutions

	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Disconnect/fuses + contactor + overload relay

	Motor HP 460 V	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10
Full load current (NEC Table 430.250)		1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A	14 A
 Fused disconnect (UL 98)	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS1DU3
Fuse class/ampacity	CC 3 A	CC 4.5 A	CC 6 A	CC 9 A	CC 10 A	CC 15 A	CC 20 A	CC 30 A	CC 30 A	J 25 A
SCCR	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
 Non-fused disconnect (UL 98)	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P063R2
Ampacity	60 A	60 A	60 A	60 A	60 A	60 A	60 A	60 A	60 A	60 A
SCCR (max fuse/class)	50 kA (60 A J)	50kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)
 Fuse holder	DFCC3	DFCC3	DFCC3	DFCC3	DFCC3	DFCC3	DFCC3	DFCC3	DFCC3	9080FB3611J
Fuse class/ampacity	CC 3 A	CC 4.5 A	CC 6 A	CC 9 A	CC 10 A	CC 15 A	CC 20 A	CC 30 A	CC 30 A	J 25 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
 Contactor (2)	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D09	LC1D12	LC1D18
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Thermal overload class 10	LRD06	LRD07	LRD07	LRD08	LRD08	LRD10	LRD12	LRD16	LRD16	LRD21
Overload range	1–1.6 A	1.6–2.5 A	1.6–2.5 A	2.5–4 A	2.5–4 A	4–6 A	5.5–8 A	9–13 A	9–13 A	12–18 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
 Electronic overload	LR9D02	LR9D02	LR9D08	LR9D08	LR9D08	LR9D08	LR9D08	LR9D32	LR9D32	LR9D32
Overload range	0.4–2 A	0.4–2 A	1.6–8 A	1.6–8 A	1.6–8 A	1.6–8 A	1.6–8 A	6.4–32 A	6.4–32 A	6.4–32 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA

Notes: (2) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example LC1D09G7 includes a 120 VAC coil.

**TABLE A:**  
Voltage coil codes for TeSys LC1 Contactors

	24 V	24 V	120 V	100–250 V
LC1 Contactor	AC	DC	AC	AC/DC
D09 – D32	B7	BL	G7	KUE
D40A – D65A	B7	BBE	G7	KUE
D80 – D150	B7	BD	G7	
G115 – G800	BEEA	BEEA		KUEN

Consult the Schneider Electric Digest for more product selection options and information.

# TeSys™ motor control and protection solutions

## Disconnect/fuses + contactor + overload relay

Motor HP 460 V	15	20	25	30	40	50	60	75	100
Full load current (NEC Table 430.250)	21 A	27 A	34 A	40 A	52 A	65 A	77 A	96 A	124 A
Fused disconnect (UL 98)	GS2JU3N	GS2JU3N	GS2JU3N	GS2JU3N	GS2JU3N	GS2MU3N	GS2MU3N	GS2MU3N	GS2QU3N
Fuse class/ampacity	J 35 A	J 45 A	J 60 A	J 70 A	J 90 A	J 110 A	J 150 A	J 175 A	J 225 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Non-fused disconnect (UL 98)	VLS3P063R2	VLS3P063R2	VLS3P063R2	VLS3P080R2	VLS3P100R2	LK4JU3CN	LK4MU3CN	LK4MU3CN	LK4MU3CN
Ampacity	60 A	60 A	60 A	80 A	100 A	100 A	200 A	200 A	200 A
SCCR (max fuse/class)	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	200 kA (100 A J)	200 kA (100 A J)	200 kA (100 A J)	200 kA (200 A J)	200 kA (200 A J)	200 kA (200 A J)
Fuse holder	9080FB3621J	9080FB3621J	9080FB3621J						
Fuse class/ampacity	J 35 A	J 45 A	J 60 A	J 70 A	J 90 A	J 110 A	J 150 A	J 175 A	J 225 A
SCCR	200 kA	200 kA	200 kA						
Contactor (2)	LC1D25	LC1D32	LC1D40A	LC1D40A	LC1D50A	LC1D80	LC1D80	LC1D115	LC1D150
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Thermal overload class 10	LRD22	LRD32	LRD340	LRD350	LRD365	LRD3361	LRD3363	LRD4365	LRD4369
Overload range	16–24 A	23–32 A	30–40 A	37–50 A	48–65 A	55–70 A	63–80 A	80–104 A	110–140 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	10 kA
Electronic overload	LR9D32	LR9D32							
Overload range	6.4–32 A	6.4–32 A							
SCCR with fuse shown	100 kA	100 kA							

Notes: (2) Complete the contactor part number by adding the coil voltage suffix from TABLE A. For example LC1D09G7 includes a 120 VAC coil.

## Accessories for disconnects: GS



GS handle	NEMA 4/4X black handle for 30-400 A GS2 or 100-400 A LK4	GS2AH430
	NEMA 4/4X red/yellow handle for 30-400 A GS2 or 100-400 A LK4	GS2AH440
GS shaft	12.6-inch shaft for 30-400 A GS2 or 100-400 A LK4	GS2AE2

## Accessories for disconnects: VLS

See page 22


## Accessories for TeSys Deca contactors

See page 17

## Accessories for TeSys Deca overload relays




See page 19

# TeSys™ motor control and protection solutions



	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Motor disconnects

Motor HP 460 V	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A	14 A
 Open disconnect	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1	VLS3P016R1
Ampacity	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
SCCR	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA
 Open disconnect—door mount	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1	VLS3P016D1
Ampacity	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
SCCR	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA
 Enclosed 4X disconnect	MD3304X	MD3304X	MD3304X	MD3304X	MD3304X	MD3304X	MD3304X	MD3304X	MD3304X
Ampacity	30 A	30 A	30 A	30 A	30 A	30 A	30 A	30 A	30 A
SCCR (max fuse class/size)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)	65 kA (J 30 A)

## Accessories for disconnects: VLS




	VLS handle	Recessed red/yellow selector handle	VLSH1S5R
		Protruding red/yellow selector handle	VLSH2S5R
		Protruding red/yellow selector handle for 16–40 A door mount	VLSH2H5R
		Defeatable protruding red/yellow selector handle for 16–40 A door mount	VLSH2H5RD
		Recessed black selector handle	VLSH1S5B
		Protruding black selector handle	VLSH2S5B
		Defeatable protruding black selector handle for 16-40 A door mount	VLSH2H5BD
VLS shaft	11.8-inch shaft	VLSS3005	
	19.7-inch shaft	VLSS5005	
	VLS contact accessories	Add-on fourth pole for VLS3P016R1 to 040R1	VLS1P040R1S
		Add-on fourth pole for VLS3P063R1	VLS1P063R1S
		Add-on fourth pole for VLS3P063D1	VLS1P063D2S
		Early-make add-on fourth pole for VLS3P016R1 to 040R1	VLS1P040R1E
		1 NO 1 NC side mount contact for VLS3P...R1	VLSA11RS
		1 NO 1 NC side mount contact for VLS3P...D1	VLSA11DS
VLS fuse holder	Add-on class CC fuse holder for VLS3p016R1 to 032R1	VLSFH1UL	

Consult the Schneider Electric Digest for more product selection options and information.



# TeSys™ motor control and protection solutions


## Motor disconnects

	Motor HP 460 V	15	20	25	30	40	50	60
	Full load current (NEC Table 430.250)	21 A	27 A	34 A	40 A	52 A	65 A	77 A
	Open disconnect	VLS3P025R1	VLS3P032R1	VLS3P063R1	VLS3P063R1	VLS3P063R2	VLS3P100R2	VLS3P125R2
	Ampacity	25 A	32 A	60 A	60 A	60 A	100 A	100 A
	SCCR	5 kA	5 kA	5 kA	5 kA	50 kA (60 A J)	50 kA (100 A J)	50 kA (100 A J)
	Open disconnect—door mount	VLS3P025D1	VLS3P032D1	VLS3P063D2	VLS3P063D2	VLS3P063D2	VLS3P100D2	VLS3P125D2
	Ampacity	25 A	32 A	60 A	60 A	60 A	100 A	100 A
	SCCR	5 kA	5 kA	50 kA (60 A J)	50 kA (60 A J)	50 kA (60 A J)	50 kA (100 A J)	50 kA (100 A J)
	Enclosed 4X disconnect	MD3304X	MD3304X	MD3604X	MD3604X	MD3604X		
	Ampacity	30 A	30 A	60 A	60 A	60 A		
	SCCR (max fuse class/size)	65 kA (J 30 A)	65 kA (J 30 A)	50 kA (J 100 A)	50 kA (J 100 A)	50 kA (J 100 A)		

Accessories for disconnects: VLS

See page 22

# NEMA and definite purpose motor control

	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Circuit breaker + contactor + overload relay

	1/2	3/4	1	1-1/2	2	3	5	7-1/2
Motor HP 460 V	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Circuit breaker (1)	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36015	BJL36025
Interrupting rating 480 V	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Ampacity	15 A	15 A	15 A	15 A	15 A	15 A	15 A	25 A
Contactor (2)	T02AN13	T02AN13	T02AN13	T02AN13	T02AN13	T02BN13	T02BN13	T02CN13
NEMA size	00	00	00	00	00	0	0	1
SCCR with breaker	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA	85 kA
Thermal overload class 20	LRD06L	LRD07L	LRD07L	LRD08L	LRD08L	LRD10L	LRD12L	LRD16L
Overload range	1–1.6 A	1.6–2.5 A	1.6–2.5 A	2.5–4 A	2.5–4 A	4–6 A	5.5–8 A	9–13 A
SCCR with breaker	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA	65 kA
Electronic overload	LR9D02	LR9D02	LR9D08	LR9D08	LR9D08	LR9D08	LR9D32	LR9D32
Overload range	0.4–2 A	0.4–2 A	1.6–8 A	1.6–8 A	1.6–8 A	1.6–8 A	6.4–32 A	6.4–32 A
SCCR with breaker	5 kA	5 kA	10 kA	10 kA	10 kA	10 kA	65 kA	65 kA

Notes: (1) For alternate interrupting ratings at 480Y/277 V, replace the “J” in the part number with “D” for 18 kA, or “G” for 35 kA. (2) Complete the contactor part number by adding the coil voltage suffix from TABLE C. For example, T02CN13G7 includes a 120 VAC coil.

## Fuse holder + definite purpose (DP) contactor

	1/6	1/4	1/3	1/2	3/4	1	1-1/2	2
Motor HP 230 V 1-phase	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Full load current (NEC Table 430.248)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Fuse holder 2-pole	9080FB2611J	9080FB2611J	9080FB2611J	9080FB2611J	9080FB2611J	9080FB2611J	9080FB2611J	9080FB2611J
Fuse class/ampacity	J 4 A	J 5 A	J 6 A	J 8 A	J 12 A	J 15 A	J 17.5 A	J 25 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Contactor 2-pole (1)	8910DP12	8910DP12	8910DP12	8910DP12	8910DP12	8910DP12	8910DP12	8910DP12
Full load amp rating	20 A	20 A	20 A	20 A	20 A	20 A	20 A	20 A
Resistive load amp rating	30 A	30 A	30 A	30 A	30 A	30 A	30 A	30 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Motor HP 460 V 3-phase	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Full load current (NEC Table 430.250)	1.1 A	1.6 A	2.1 A	3 A	3.4 A	4.8 A	7.6 A	11 A
Fuse holder 3-pole	9080FB3611J	9080FB3611J	9080FB3611J	9080FB3611J	9080FB3611J	9080FB3611J	9080FB3611J	9080FB3611J
Fuse class/ampacity	J 2 A	J 3 A	J 3.5 A	J 5 A	J 6 A	J 8 A	J 12 A	J 20 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Contactor 3-pole (1)	8910DPA13	8910DPA13	8910DPA13	8910DPA13	8910DPA13	8910DPA13	8910DPA13	8910DPA13
Full load amp rating	20 A	20 A	20 A	20 A	20 A	20 A	20 A	20 A
Resistive load amp rating	30 A	30 A	30 A	30 A	30 A	30 A	30 A	30 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA

Notes: (1) Complete the contactor part number by adding the coil voltage suffix from TABLE D (see page 17). For example, 8910DPA33V02 includes a 120 VAC coil. Consult the Schneider Electric Digest for more product selection options and information.

# NEMA and definite purpose motor control

## Circuit breaker + contactor + overload relay

Motor HP 460 V	10	15	20	25
Full load current (NEC Table 430.250)	14 A	21 A	27 A	34 A
Circuit breaker (1)	BJL36030	BJL36045	BJL36060	BJL36070
Interrupting rating 480 V	65 kA	65 kA	65 kA	65 kA
Ampacity	30 A	45 A	60 A	70 A
Contactor (2)	T02CN13	T02DN13	T02DN13	T02DN13
NEMA size	1	2	2	2
SCCR with breaker	85 kA	100 kA	100 kA	100 kA
Thermal overload class 20	LRD21L	LRD22L	LRD32L	LRD340L
Overload range	12–18 A	16–24 A	23–32 A	30–40 A
SCCR with breaker	65 kA	65 kA	65 kA	100 kA
Electronic overload	LR9D32			
Overload range	6.4–32 A			
SCCR with breaker	65 kA			

Notes: (1) For alternate Interrupting ratings at 480Y/277 V, replace the “J” in the part number with “D” for 18 kA, or “G” for 35 kA.  
 (2) Complete the contactor part number by adding the coil voltage suffix from TABLE C. For example, T02CN13G7 includes a 120 VAC coil.

**TABLE C:**  
Voltage coil codes for TeSys N NEMA Contactors

NEMA size	24 V	24 V	120 V
	AC	DC	AC
00	B7	BD	G7
0	B7	BD	G7
1	B7	BD	G7
2	B7	BD	G7

## Fuse holder + definite purpose (DP) contactor

Motor HP 230 V 1-phase	3	5	7-1/2
Full load current (NEC Table 430.248)	14 A	21 A	27 A
Fuse holder 2-pole	9080FB2621J	9080FB2621J	
Fuse class/ampacity	J 30A	J 50 A	J 70 A
SCCR	200 kA	200 kA	
Contactor 2-pole (1)	8910DP12	8910DP32	8910DP42
Full load amp rating	20 A	30 A	40 A
Resistive load amp rating	30 A	40 A	50 A
SCCR with fuse shown	100 kA	100 kA	100 kA


Motor HP 460 V 3-phase	10	15	20	25
Full load current (NEC Table 430.250)	14 A	21 A	27 A	34 A
Fuse holder 3-pole	9080FB3611J	9080FB3621J	9080FB3621J	9080FB3621J
Fuse class/ampacity	J 25 A	J 35 A	J 45 A	J 60 A
SCCR	200 kA	200 kA	200 kA	200 kA
Contactor 3-pole (1)	8910DPA13	8910DPA23	8910DPA33	8910DPA43
Full load amp rating	20 A	25 A	30 A	40 A
Resistive load amp rating	30 A	35 A	40 A	50 A
SCCR with fuse shown	100 kA	100 kA	100 kA	100 kA

Notes: (1) Complete the contactor part number by adding the coil voltage suffix from TABLE D. For example, 8910DPA33V02 includes a 120 VAC coil.

**TABLE D:**  
Voltage coil codes for definite purpose contactors


8910 contactor	24 V	120 V	208–240 V
	AC	AC	AC
	V14	V02	V09

# Circuit protection


	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Circuit breakers

Current ampacity	0.5–15 A	20 A	25 A	30 A	35 A	40 A	45 A	50 A	60 A	70 A	80 A
 Circuit breaker (1)	BDL36015	BDL36020	BDL36025	BDL36030	BDL36035	BDL36040	BDL36045	BDL36050	BDL36060	BDL36070	BDL36080
Interrupting rating 480 V	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA
3R/12 rotary handle kit, 6 inch shaft	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1	9421LB1
	90 A	100 A	110 A	125 A	150 A	175 A	200 A	225 A	250 A	400 A	
	BDL36090	BDL36100	BDL36110	BDL36125	HDL36150	JDL36175	JDL36200	JDL36225	JDL36250	LDL36400U31X	
	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	18 kA	
	9421LB1	9421LB1	9421LB1	9421LB1	9421LH6	9421LH6	9421LH6	9421LH6	9421LH6	9421LH6	

Notes: (1) For alternate Interrupting ratings at 480Y/277 V, replace the "D" in the part number with "G" for 35 kA, or "J" for 65 kA.

Current ampacity	0.5 A	1 A	2 A	3 A	4 A	5 A	6 A	8 A
 Mini circuit breaker 1-pole	M9F42170	M9F42101	M9F42102	M9F42103	M9F42104	M9F42105	M9F42106	M9F42108
Interrupting rating 120 V	14 kA	14 kA	14 kA	14 kA	14 kA	14 kA	14 kA	14 kA
		10 A	15 A	20 A	25 A	30 A	35 A	40 A
		M9F42110	M9F42115	M9F42120	M9F42125	M9F42130	M9F42135	M9F42140
		14 kA	14 kA	14 kA	14 kA	14 kA	14 kA	10 kA
Current ampacity		1 A	2 A	3 A	4 A	5 A	6 A	8 A
Mini circuit breaker 2-pole		M9F42201	M9F42202	M9F42203	M9F42204	M9F42205	M9F42206	M9F42208
Interrupting rating 240 V		14 kA	14 kA	14 kA	14 kA	14 kA	14 kA	14 kA
		10 A	15 A	20 A	25 A	30 A	35 A	40 A
		M9F42210	M9F42215	M9F42220	M9F42225	M9F42230	M9F42235	M9F42240
		14 kA	14 kA	14 kA	14 kA	14 kA	14 kA	10 kA
Current ampacity		1 A	2 A	3 A	4 A	5 A	6 A	8 A
Mini circuit breaker 3-pole		M9F42301	M9F42302	M9F42303	M9F42304	M9F42305	M9F42306	M9F42308
Interrupting rating 408 Y/277V		10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA
		10 A	15 A	20 A	25 A	30 A	35 A	40 A
		M9F42310	M9F42315	M9F42320	M9F42325	M9F42330	M9F42335	M9F42340
		10 kA	10 kA	10 kA	10 kA	10 kA	10 kA (240 V)	10 kA (240 V)

Consult the Schneider Electric Digest for more product selection options and information.

# Circuit protection


## Fusible disconnects



Current ampacity	0.5 A	1 A	2 A	3 A	4–30 A	35–60 A	70–100 A	110–200 A	225–400 A	600 A	800 A
Fused disconnect (UL 98)	GS1DDU3	GS1DDU3	GS1DDU3	GS1DDU3	GS2EEU3	GS2GU3N	GS2JU3N	GS2MU3N	GS2QU3N	GS2SU3N	GS2ST3N
Fuse class/ampacity	CC 3 A	CC 4.5 A	CC 6 A	CC 9 A	CC 30 A	J 60 A	J 100 A	J 200 A	J 400 A	J 600 A	L 800 A
SCCR	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Black 4/4X rotary handle	GS2 AH410	GS2 AH410	GS2 AH410	GS2 AH410	GS2 AH430	GS2 AH430	GS2 AH430	GS2 AH430	GS2 AH430	GS2 AH150	GS2 AH150
12-inch shaft	GS2 AE8 [1]	GS2 AE8 [1]	GS2 AE8 [1]	GS2 AE8 [1]	GS2 AE2	GS2 AE2	GS2 AE2	GS2 AE2	GS2 AE2	GS2 AE5	GS2 AE5

[1] Use GS2AH100TO200 when using GS1 type disconnects with GS2 handle/shaft.

# Circuit protection

	Circuit breakers	Motor circuit protectors	Fusible disconnects	Non-fused disconnects	Fuse holders	Manual motor protectors	Contactors	Overload relays	Motor starters	Combination motor controllers
Range name	PPB, Multi 9	TeSys BV4	TeSys GS	TeSys VLS, MD	TeSys DF	TeSys Deca/Giga	TeSys Deca/Giga	TeSys Deca/Giga	TeSys H	TeSys Ultra
Product reference prefix	B, M9	BV4	GS	VLS, MD	DF	GV	LC	LR	LZ	LU
Motor starter structure - 4 functions:										
 Disconnect	■	■	■	■	—	■	—	—	—	■
Short-circuit protection	■	■ (1)	■	—	■	■ (2)	—	—	—	■ (2)
Motor controller	—	—	—	—	—	—	■	—	■	■
Overload protection	—	—	—	—	—	■	—	■	■	■

Notes: (1) When used as a Type D combination motor controller. (2) When used as a Type E or F combination motor controller.

## Non-fused disconnects

Current ampacity	0.5–30 A	35–60 A	70–80 A	90–100 A	110–200 A	225–400 A
Non-fused disconnect (UL 98)	VLS3P063R2	VLS3P063R2	VLS3P080R2	VLS3P100R2	LK4MU3CN	LK4QU3CN
Ampacity	60 A	60 A	80 A	100 A	200 A	400 A
SCCR (max fuse/class)	50 kA (60 A J)	50 kA (60 A J)	200 kA (100 A J)	200 kA (100 A J)	200 kA (200 A J)	200 kA (400 A J)
Door-mount disconnect (UL 98)	VLS3P063D2	VLS3P063D2	VLS3P080D2	VLS3P100D2		
Ampacity	60 A	60 A	80 A	100 A		
SCCR (max fuse/class)	50 kA (60 A J)	50 kA (60 A J)	200 kA (100 A J)	200 kA (100 A J)		

## Fuse holders

Current ampacity	0.5–30 A	35 A	40 A	45 A	50 A	60 A
Fuse holder 1-pole	DFCC1					
Fuse class/ampacity	CC 30 A					
SCCR	200 kA					
Fuse holder 2-pole	DFCC2	9080FB2621J	9080FB2621J	9080FB2621J	9080FB2621J	9080FB2621J
Fuse class/ampacity	CC 30 A	J 60 A	J 60 A	J 60 A	J 60 A	J 60 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Fuse holder 3-pole	DFCC3	9080FB3621J	9080FB3621J	9080FB3621J	9080FB3621J	9080FB3621J
Fuse class/ampacity	CC 30 A	J 60 A	J 60 A	J 60 A	J 60 A	J 60 A
SCCR	200 kA	200 kA	200 kA	200 kA	200 kA	200 kA
Fuse holder compact 3-pole	LS1D30					
Fuse class/ampacity	CC 30 A					
SCCR	200 kA					



Consult the Schneider Electric Digest for more product selection options and information.

# Circuit protection

## Non-fused disconnects

Current ampacity	600 A	800 A	1000 A	1200 A
Non-fused disconnect (UL 98)	LK4SU3CN	LK4TU3CN	LK4UU3CN	LK4WU3CN
Ampacity	600 A	800 A	1000 A	1200 A
SCCR (max fuse/class)	200 kA(600AJ)	100 kA(800AL)	100 kA(1000AL)	100 kA(1200AL)

## Accessories for disconnects: VLS

	VLS handle	Recessed red/yellow selector handle	VLSH1S5R
		Protruding red/yellow selector handle	VLSH2S5R
		Protruding red/yellow selector handle for 16–40 A door mount	VLSH2H5R
		Defeatable protruding red/yellow selector handle for 16–40 A door mount	VLSH2H5RD
		Recessed black selector handle	VLSH1S5B
		Protruding black selector handle	VLSH2S5B
		Defeatable protruding black selector handle for 16-40 A door mount	VLSH2H5BD
	VLS shaft	11.8 inch shaft	VLSS3005
		19.7 inch shaft	VLSS5005
	VLS contact accessories	Add-on fourth pole for VLS3P016R1 to 040R1	VLS1P040R1S
		Add-on fourth pole for VLS3P063R1	VLS1P063R1S
		Add-on fourth pole for VLS3P063D1	VLS1P063D2S
		Early-make add-on fourth pole for VLS3P016R1 to 040R1	VLS1P040R1E
		1 NO 1 NC side mount contact for VLS3P...R1	VLSA11RS
		1 NO 1 NC side mount contact for VLS3P...D1	VLSA11DS
	VLS fuse holder	Add-on class CC fuse holder for VLS3p016R1 to 032R1	VLSFH1UL

# Square D™ transformers



Type T Control Transformer with Primary & Secondary Protection (Supplementary Protectors)									
Size VA	480 V Primary: 120 V Secondary			240 V Primary: 120 V Secondary			208 V Primary: 120 V Secondary		
	Transformer	Primary Side 2-Pole Supplementary Protector	Secondary Side 1-Pole Supplementary Protector	Transformer	Primary Side 2-Pole Supplementary Protector	Secondary Side 1-Pole Supplementary Protector	Transformer	Primary Side 2-Pole Supplementary Protector	Secondary Side 1-Pole Supplementary Protector
50	9070T50D1	M9F23201	M9F23101	9070T50D1	M9F23201	M9F23101	9070T50D3	M9F23201	M9F23101
100	9070T100D1	M9F23201	M9F23101	9070T100D1	M9F23202	M9F23101	9070T100D3	M9F23202	M9F23101
200	9070T200D1	M9F23202	M9F23103	9070T200D1	M9F23204	M9F23103	9070T200D3	M9F23205	M9F23103
300	9070T300D1	M9F23203	M9F23104	9070T300D1	M9F23206	M9F23104	9070T300D3	M9F23208	M9F23104
500	9070T500D1	M9F23205	M9F23108	9070T500D1	M9F23205	M9F23108	9070T500D3	M9F23206	M9F23108
1000	9070T1000D1	M9F23205	M9F23113	9070T1000D1	M9F23210	M9F23113	9070T1000D3	M9F23213	M9F23113



Type TF Control Transformer with Fuse Block for Primary & Secondary Protection (Fuses)									
Size VA	480 V Primary: 120 V Secondary			240 V Primary: 120 V Secondary			208 V Primary: 120 V Secondary		
	Transformer	Primary Class CC Fuse Size (A)	Secondary Midget Fuse Size (A)	Transformer	Primary Class CC Fuse Size (A)	Secondary Midget Fuse Size (A)	Transformer	Primary Class CC Fuse Size (A)	Secondary Midget Fuse Size (A)
50	9070TF50D1	0.5	0.8	9070TF50D1	1	0.8	9070TF50D3	1	0.8
100	9070TF100D1	1	1.25	9070TF100D1	2	1.25	9070TF100D3	2.5	1.25
200	9070TF200D1	2	3	9070TF200D1	4	3	9070TF200D3	5	3
300	9070TF300D1	3	4	9070TF300D1	6	4	9070TF300D3	7	4
500	9070TF500D1	5	7	9070TF500D1	5	7	9070TF500D3	6	7
1000	9070TF1000D1	5	14	9070TF1000D1	10	14	9070TF1000D3	12	14

Consult the Schneider Electric Digest for more product selection options and information.



# Square D™ transformers



Type T Control Transformer with Primary Only Protection (Supplementary Protectors)									
Size VA	480 V Primary: 120 V Secondary			240 V Primary: 120 V Secondary			208 V Primary: 120 V Secondary		
	Transformer	Primary Side Supplementary Protector		Transformer	Primary Side 2-Pole Supplementary Protector		Transformer	Primary Side 2-Pole Supplementary Protector	
50	9070T50D1	M9F23201		9070T50D1	M9F23201		9070T50D3	M9F23201	
100	9070T100D1	M9F23201		9070T100D1	M9F23202		9070T100D3	M9F23202	
200	9070T200D1	M9F23202		9070T200D1	M9F23204		9070T200D3	M9F23205	
300	9070T300D1	M9F23203		9070T300D1	M9F23206		9070T300D3	M9F23208	
500	9070T500D1	M9F23205		9070T500D1	M9F23204		9070T500D3	M9F23204	
1000	9070T1000D1	M9F23204		9070T1000D1	M9F23208		9070T1000D3	M9F23208	

# Altistart™ 01 soft starters for 0.37 to 15 kW / 0.5 to 20 HP motors



## Altistart™ 01 soft starters 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	
	Under 110 V (HP)	–		0.5		–		1	
	Under 230 V (kW)	0.37	0.55	0.75	1.1	1.5	2.2		
	Under 230 V (HP)	0.5	–	1	1.5	2	3		
	Under 400 V (kW)	1.1	–	2.2	3	4	5.5		
Power for 3-phase motor (2)	Under 460 V (HP)	0.5	1.5	2	3	5	7.5		

Nominal current I <sub>cL</sub> (A) (3)	3	6	9	12
Dimensions: W x D x H (mm)	22.5 x 100.4 x 100			45 x 130.7 x 124
Reference	ATS01N103FT	ATS01N106FT	ATS01N109FT	ATS01N112FT

## Altistart 01 soft start/soft stop units for 0.75 to 15 kW motors (4) and 3-phase supply voltage 220...240 V 50/60 Hz (5)

Power for 3-phase motor 220...240 V 50/60 Hz (kW) (2)	0.75/1.1	4/5.5	7.5
Power in HP (2)	1/1.5	5/7.5	10
Nominal current I <sub>cL</sub> (A) (3)	6	22	32
Dimensions: W x D x H (mm)	45 x 130.7 x 124	45 x 130.7 x 154	
Reference	ATS01N206LU	ATS01N222LU	ATS01N232LU

## Altistart 01 start/soft stop units for 0.75 to 15 kW motors (4) and 3-phase supply voltage 440...480 V 50/60 Hz (5)

Power for 3-phase motor 440...480 V 50/60 Hz (kW) (2)	–	–	–	–	–
Power in HP (2)	2/3	5	7.5	10/15	20
Nominal current I <sub>cL</sub> (A) (3)	6	9	12	22	32
Dimensions: W x D x H (mm)	45 x 130.7 x 124			45 x 130.7 x 154	
Reference	ATS01N206RT	ATS01N209RT	ATS01N212RT	ATS01N222RT	ATS01N232RT

(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) I<sub>cL</sub> corresponds to the starter rating. (4) Control power supply built into the starter.

(5) Number of possible start-stops/hour: 100 for starting time of 1 s maximum, 20 for starting time of 5 s maximum, 10 for starting time of 10 s maximum.

# Altistart 22 soft starters for 3 to 500 HP motors



## Altistart 22 soft start/soft stop units for 3-phase power supply voltage 208...600 V and 110 V control power supply—Connection in the motor power supply line

Motor power in HP	208 V	3	7.5	–	15	20	25	30	40
	230 V	5	10	15	20	25	30	40	50
	460 V	10	10	30	40	50	60	75	100
	575 V	15	25	40	50	60	75	100	125
Nominal current I <sub>cL</sub> (A) (1)	17	32	47	62	75	88	110	140	
Number of starts/hour	Without fan	6	6	6	6	6	6	4	4
	With fan (2)	10	10	10	10	10	10	10	10
Dimensions: W x D x H (mm)	130 x 265 x 169				145 x 295 x 207			150 x 356 x 229	
Reference	ATS22D17S6U	ATS22D32S6U	ATS22D47S6U	ATS22D62S6U	ATS22D75S6U	ATS22D88S6U	ATS22C11S6U	ATS22C14S6U	

Note: All values given for Altistart 22 starters are defined for 3.5 x I<sub>n</sub> and 20s starting time, with motors with thermal protection class 10. These values are for an ambient temperature of 40 °C.

(1) I<sub>cL</sub> corresponds to the starter rating. (2) All soft starters from motor power 75 HP to 200 HP (ATS22C21.. to ATS22C59..) are equipped with a fan as standard.

# Altivar™ 12 ultra-compact variable speed drives for commercial equipment



## Altivar™ 12 drives with heatsink

Supply voltage: 100...120 V 50/60 Hz (1) (2)						
Phase		Single-phase				
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		ATV12 H018F1 (4)	ATV12 H037F1	ATV12 H075F1		
Supply voltage: 200...240 V 50/60 Hz (1) (2)						
Phase		Single-phase				Three-phase
Motor	Power indicated on plate in kW (3)	0.18	0.75	1.5	2.2	0.75
	Power indicated on plate in HP (3)	0.25	1	2	3	1
Altivar 12	Max. continuous output current (3)	1.4	4.2	7.5	10	4.2
	Dimensions: W x H x D (mm) (4)	72 x 143 x 102	72 x 143 x 131	105 x 142 x 156		72 x 143 x 131
Reference		ATV12 H018M2 (4)	ATV12 H075M2 (5)	ATV12 HU15M2	ATV12 HU22M2	ATV12 H075M3

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.schneider-electric.com](http://www.schneider-electric.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 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 the baseplate version of this drive, replace "H" with "P" in the part number. The depth of ATV12P075M2 is 102.2 mm.

## Accessories for Altivar 12 drives

Reference	Description
VW3A1006	Remote keypad display for ATV12 (IP54)
VW3A1104R30	Cable for remote mounting: 3 meters
TCSMCNAM3M002P	USB/RJ45 Connection cable

# Altivar™ machine ATV320 variable speed drives for simple and advanced machines



## ATV320 drives with compact control block

Supply voltage: 200...240 V 50/60 Hz (1) (2)

Phase		Single-phase			Three-phase								
Motor	Power indicated on plate in kW	0.75	1.5	2.2	0.75	1.5	4	5.5	7.5				
	Power indicated on plate in HP	1	2	3	1	2	5	7.5	10				
Altivar 320	Max. continuous output current (3)	4.8	8	11	4.8	8	17.5	27.5	33				
Dimensions: W x H x D (mm) (4)		72 x 143 x 138		105 x 142 x 158		72 x 143 x 138		105 x 142 x 158		140 x 184 x 184		150 x 232 x 178	
Reference		ATV320 U07M2C	ATV320 U15M2C	ATV320 U22M2C	ATV320 U07M3C	ATV320 U15M3C	ATV320 U40M3C	ATV320 U55M3C	ATV320 U75M3C				

Supply voltage: 380...500 V 50/60 Hz (1) (2)

Phase		Three-phase				
Motor	Power indicated on plate in kW	0.75	1.5	2.2	4	
	Power indicated on plate in HP	1	2	3	5	
Altivar 320	Max. continuous output current (3)	2.3	4.1	5.5	9.5	
Dimensions: W x H x D (mm) (4)		105 x 143 x 158			140 x 184 x 158	
Reference		ATV320 U07N4C	ATV320 U15N4C	ATV320 U22N4C	ATV320 U40N4C	



## ATV320 drives with book control block

Supply voltage: 380...500 V 50/60 Hz (1) (2)

Phase		Three-phase					
Motor	Power indicated on plate in kW	0.75	1.5	2.2	4	5.5	7.5
	Power indicated on plate in HP	1	2	3	5	7.5	10
Altivar 320	Max. continuous output current (3)	2.3	4.1	5.5	9.5	14.3	17
Dimensions: W x H x D (mm) (5)		45 x 325 x 245		60 x 325 x 245		150 x 232 x 232	
Reference		ATV320 U07N4B	ATV320 U15N4B	ATV320 U22N4B	ATV320 U40N4B	ATV320 D55N4B	ATV320 U75N4B

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.schneider-electric.com](http://www.schneider-electric.com).

(1) Altivar Machine ATV320 variable speed drives are compliant with Machinery Directive 2006/42/EC. Compliant safety functions are Safe Torque Off (STO), Safe Stop 1 (SS1), Safe Limited Speed (SLS), Safe Maximum Speed (SMS), and Guard Door Lock (GDL).

(2) Altivar Machine ATV320 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.schneider-electric.com](http://www.schneider-electric.com).

(3) Altivar Machine ATV320 variable speed drives can supply transient output current of  $1.5 \times I_n$  for 60 s for every 10 min. cycle.

(4) For ATV320 drives with compact control block and ATV320 drives with book control > 5.5 kW, EMC plate (or UL type 1 kit) dimensions are not applicable.

(5) For ATV320 drives with book control  $\leq 4$  kW, EMC plate dimensions are applicable.

For more information, please refer to the "Variable speed drives - Altivar Machine ATV320" catalog on our website [www.schneider-electric.com](http://www.schneider-electric.com).

## Communication modules and accessories for ATV320 variable speed drives

### Accessories

Reference	Description
VW3A3616	Ethernet IP communication module
VW3A3600	Comm. module adaptor for ATV320...C
VW3A1111	Graphical display and keypad for ATV320 drives
VW3A1112	Display door mounting kit for ATV320 drives
TCSMCNAM3M002P	USB/RJ45 Connection cable

# Harmony™ RSL slim, RSB, and RXG interface relays



## RSL slim interface relays

Type	Pre-assembled relays/sockets	
Contact	1 CO	
Current	6 A	
Connection	Screw connector	
LED display	With LED	
Complete product	24 VAC/VDC	<b>RSL1PVBU</b>
	110 VAC/VDC	<b>RSL1PVFU</b>

## RSB PCB interface relays

Contact	1 CO		2 CO	
Current	12 A		8 A	
Complete product	24 VDC	<b>RSB1A120BD</b>	<b>RSB2A080BD</b>	
	120 VAC	<b>RSB1A120F7</b>	<b>RSB2A080F7</b>	
Screw connector socket	<b>RSZE1S35M</b>		<b>RSZE1S48M (1) (2)</b>	
Ejector clip for RSB relay	<b>RSZR215</b>			

(1) RSZE1S48M is a two terminal socket each carrying 10 A.

(2) If RSZE1S48M socket terminals are linked, relay RSB1A160\*\* can be used up to 16 A. See "Wiring diagrams" on [www.schneider-electric.com](http://www.schneider-electric.com).

## RXG plug-in interface relays

Type	RXG relays without test button		RXG relays with test button		
Contact	1 CO	2 CO	1 CO	2 CO	
Current	10 A	5 A	10 A	5 A	
Connection	Flat pins (faston type)				
LED display	Without LED		With LED		
Complete product	24 VDC	<b>RXG15BD</b>	<b>RXG25BD</b>	<b>RXG12BD</b>	–
	120 VAC	<b>RXG15F7</b>	<b>RXG25F7</b>	<b>RXG12F7</b>	<b>RXG22F7</b>
Screw connector socket	<b>RGZE1S35M</b>	<b>RGZE1S48M</b>	<b>RGZE1S35M</b>	<b>RGZE1S48M</b>	
Diode module 24–60 VDC for RXG relay	<b>RZM031BN</b>				
Diode module 6–24 VDC for RXG relay	<b>RZM031RB</b>				

# Harmony™ RXG and RSB interface relays



## RXG interface relays

Type	RXG relays without test button				RXG relays with test button				
Contact	1 CO		2 CO		1 CO		2 CO		
Current	10 A		5 A		10 A		5 A		
Connection	Flat pins (Faston type)				Flat pins (Faston type)				
LED display	Without LED	With LED	Without LED	With LED	Without LED	With LED	Without LED	With LED	
Complete product	6 VDC	–	–	–	–	RXG12RD	RXG21RD	–	
	12 VDC	RXG15JD	RXG13JD	–	–	RXG11JD	RXG12JD	RXG21JD	RXG22JD
	24 VDC	RXG15BD	RXG13BD	RXG25BD	RXG23BD	RXG11BD	RXG12BD	RXG21BD	RXG22BD
	48 VDC	–	–	–	–	–	RXG12ED	–	RXG22ED
	110 VDC	–	–	–	–	–	RXG12FD	–	RXG22FD
	24 VAC	–	RXG13B7	RXG25B7	RXG23B7	RXG11B7	RXG12B7	RXG21B7	RXG22B7
	48 VAC	–	–	–	RXG23E7	–	RXG12E7	RXG21E7	RXG22E7
	120 VAC	RXG15F7	RXG13F7	RXG25F7	RXG23F7	RXG11F7	RXG12F7	RXG21F7	RXG22F7
	220 VAC	–	–	RXG25M7	RXG23M7	–	–	RXG21M7	RXG22M7
230 VAC	RXG15P7	RXG13P7	RXG25P7	RXG23P7	RXG11P7	RXG12P7	RXG21P7	RXG22P7	
Screw connector socket	RGZE1S35M		RGZE1S48M		RGZE1S35M		RGZE1S48M		
Push-in socket	RGZE05P		RGZE08P		RGZE05P		RGZE08P		
Pre-mounted product	24 VDC	–	RXG13BDPV	–	RXG23BDPV	–	RXG12BDPV	RXG21BDPV	RXG22BDPV
	24 VAC	–	–	–	–	–	RXG12B7PV	RXG21B7PV	RXG22B7PV
	230 VAC	–	RXG13P7PV	–	RXG23P7PV	–	RXG12P7PV	RXG21P7PV	RXG22P7PV

**Note:** RXG pre-mounted version includes relay + socket + protection module (diode for DC coil/varistor for AC coil) + clamp, sold in lots of 30 units.



## RSB interface relay

Contact	1 CO		1 CO		2 CO	
Current	12 A		16 A		8 A	
Connection	PCB Type					
Complete product	6 VDC	–	RSB1A160RD		–	
	12 VDC	RSB1A120JD	RSB1A160JD		RSB2A080JD	
	24 VDC	RSB1A120BD	RSB1A160BD		RSB2A080BD	
	48 VDC	RSB1A120ED	RSB1A160ED		RSB2A080ED	
	60 VDC	–	RSB1A160ND		–	
	110 VDC	RSB1A120FD	RSB1A160FD		RSB2A080FD	
	24 VAC	RSB1A120B7	RSB1A160B7		RSB2A080B7	
	48 VAC	RSB1A120E7	RSB1A160E7		RSB2A080E7	
	120 VAC	RSB1A120F7	RSB1A160F7		RSB2A080F7	
	220 VAC	RSB1A120M7	RSB1A160M7		RSB2A080M7	
	230 VAC	RSB1A120P7	RSB1A160P7		RSB2A080P7	
	240 VAC	RSB1A120U7	RSB1A160U7		RSB2A080U7	
Screw connector socket	RSZE1S35M		RSZE1S48M		RSZE1S48M	
Push-in socket	RSZE05P		RSZE08P		RSZE08P	
Pre-mounted product	12 VDC	RSB1A120JDPV	–		RSB2A080JDPV	
	24 VDC	RSB1A120BDPV	RSB1A160BDPV		RSB2A080BDPV	
	24 VAC	RSB1A120B7PV	–		RSB2A080B7PV	
	120 VAC	RSB1A120F7PV	–		RSB2A080F7PV	
	220 VAC	–	–		RSB2A080M7PV	
	230 VAC	RSB1A120P7PV	RSB1A160P7PV		RSB2A080P7PV	

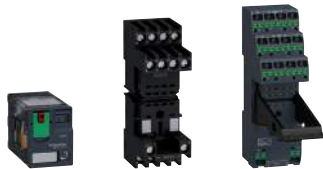
**Note:** RSB pre-mounted version includes relay + socket + protection module + clamp + label, sold in lots of 30 units.

# Harmony™ RSL and RXM 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		-		6 A	
Connection		PCB pins		Screw connector	Spring terminal	Screw connector	Spring terminal
LED display		Without LED		-		With LED	
Complete product	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	RSL1GB4ND	RSLZVA2	RSLZRA2	-	-
	110 VAC/VDC	-	-	RSLZVA3	RSLZRA3	RSL1PVFU	RSL1PRFU
	230 VAC/VDC	-	-	RSLZVA4	RSLZRA4	RSL1PVPU	RSL1PRPU



## RXM●AB miniature relays

Type		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	
Complete product	12 VDC	RXM2AB1JD	RXM2AB2JD	RXM3AB1JD	RXM3AB2JD	RXM4AB1JD	RXM4AB2JD	RXM4AB2BD	RXM4AB2ED
	24 VDC	RXM2AB1BD	RXM2AB2BD	RXM3AB1BD	RXM3AB2BD	RXM4AB1BD	RXM4AB2BD	RXM4AB2ED	RXM4AB2FD
	48 VDC	RXM2AB1ED	RXM2AB2ED	RXM3AB1ED	-	RXM4AB1ED	RXM4AB2ED	RXM4AB2FD	RXM4AB2B7
	110 VDC	RXM2AB1FD	RXM2AB2FD	RXM3AB1FD	RXM3AB2FD	RXM4AB1FD	RXM4AB2FD	RXM4AB2B7	RXM4AB2E7
	24 VAC	RXM2AB1B7	RXM2AB2B7	RXM3AB1B7	RXM3AB2B7	RXM4AB1B7	RXM4AB2B7	RXM4AB2E7	RXM4AB2F7
	48 VAC	RXM2AB1E7	RXM2AB2E7	RXM3AB1E7	RXM3AB2E7	RXM4AB1E7	RXM4AB2E7	RXM4AB2F7	RXM4AB2P7
	120 VAC	RXM2AB1F7	RXM2AB2F7	RXM3AB1F7	RXM3AB2F7	RXM4AB1F7	RXM4AB2F7	RXM4AB1MD	-
	230 VAC	RXM2AB1P7	RXM2AB2P7	RXM3AB1P7	RXM3AB2P7	RXM4AB1P7	RXM4AB2P7	RXM4AB1U7	-
	220 VDC	-	-	-	-	-	-	-	-
	240 VDC	-	-	-	-	-	-	-	-
Screw clamp socket (1)		RXZE2M114		-		RXZE2M114		-	
Screw connector socket (1)		RXZE2M114M		-		RXZE2M114M		-	
Screw connector socket (2)		RXZE2S108M		RXZE2S111M		RXZE2S114M		-	
Push-in socket		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)	-	-

(1) With mixed contacts

(2) With separate contacts

(3) RXM pre-mounted version includes relay + socket (mixed) + clamp + label, sold in lots of 30 units.

(4) RXM pre-mounted version includes relay + socket (separate) + clamp + label, sold in lots of 30 units.

# Harmony™ RXM and SE 792 miniature relays



RXM miniature “ice cube” relays						
Type		RXM relays with LED and lockable test button				
Contact		2 CO	3 CO	4 CO		
Current		12 A	10 A	6 A		
Connection		Flat pins (faston type)				
LED display		With LED		With lockable test button	With LED and lockable test button	With LED
Complete product	24 VDC	RXM2AB2BD	–	–	RXM4AB2BD	
	120 VAC	RXM2AB2F7	RXM3AB2F7	RXM4AB1F7	RXM4AB2F7	RXM4AB3F7 no test button
Screw clamp socket (1)		RXZE2M114	–	RXZE2M114	RXZE2M114	RXZE2M114
Screw connector socket (2)		RXZE2M114M	–	RXZE2M114M	RXZE2M114M	RXZE2M114M
Screw connector socket (2)		RXZE2S108M	RXZE2S111M	RXZE2S114M	RXZE2S114M	RXZE2S114M
RC circuit for RXZ sockets		RXM041FU7				
Metal clip		RXZ400				
Bus jumper		RXZS2				

(1) With mixed contacts (2) With separate contacts



792 miniature “ice cube” relays						
Type						
Contact		2 CO	4 CO	2 CO	4 CO	4 CO
Current		12 A	6 A	12 A	6 A	3mA min.
Connection		Flat pins (faston type)				
Feature		Clear cover (no features)		With LED & lockable test button		Clear cover (no features)
Complete product	24 VAC	792XBXC24A	–	–	–	–
	120 VAC	792XBXC120A	792XDXC120A	792BXM4L120A	792DXM4L120A	792XD3C120A
	240 VAC	792XBXC240A	–	–	–	–
	24 VDC	792XBXC24D	792XDXC24D	792BXM4L24D	792DXM4L24D	792XD3C24D
Screw clamp socket		70782D141				
Screw terminal socket		704611				
Metal clip		16782SC1				
Bus jumper		16782CBJ1				



# Harmony™ RPM plug-in relays, SE 781, 782, and 794 plug-in relays, Harmony™ RUM universal relays



## RPM plug-in relays (15 A)

Type	RPM relays with test button			
Contact	1 CO	2 CO	4 CO	
Current	15 A			
Connection	Flat pins (faston type)			
LED display	With LED			
Complete product	24 VDC	RPM12BD	RPM22BD	RPM42BD
	24 VAC	–	RPM22B7	–
	120 VAC	RPM12F7	RPM22F7	RPM42F7
Screw connector socket	RPZF1	RPZF2	RPZF4	

## 781, 782, 783, 784 plug-in relays (15 A)

Contact	1 CO	2 CO	1 CO	2 CO	
Current	15 A		15 A		
Connection	Flat pins (faston type)				
Feature	Clear cover (no features)		With LED & lockable test button		
Complete product	24 VAC	781XAXRC24A	782XBXC24A	781XAXRM4L24A	782XBXM4L24A
	120 VAC	781XAXRC120A	782XBXC120A	–	782XBXM4L120A
	240 VAC	–	782XBXC240A	–	782XBXM4L240A
	12 VDC	–	–	–	782XBXM4L12D
	24 VDC	781XAXRC24D	782XBXC24D	781XAXRM4L24D	782XBXM4L24D
Screw clamp socket	70781D5R1A	70782D81A	70781D5R1A	70782D81A	
Screw terminal socket	704591		704591		



## RUM universal relays

Contact	2 CO	3 CO	
Current	10 A		
Connection	Cylindrical		
LED display	With LED & lockable test button		
Complete product	24 VDC	RUMC22BD	RUMC32BD
	120 VAC	RUMC22F7	RUMC32F7
Screw connector socket	Mixed contact terminal arrangement	RUZC2M	RUZC3M

# SE 750 general purpose relays, SE 92 and 725 power relays, and Harmony™ RPF power relays



750 universal relays					
Contact		2 CO	3 CO	2 CO	3 CO
Current		10 A			
Connection		Cylindrical / octal PINs			
Feature		Clear cover (no features)		With LED & lockable test button	
Complete product	24 VAC	750XBXRC24A	–	–	–
	120 VAC	750XBXRC120A	750XCXRC120A	750XBXRM4L120A	750XCXRM4L120A
	240 VAC	750XBXRC240A	–	–	–
	12 VDC	750XBXRC12D	–	–	–
	24 VDC	750XBXRC24D	750XCXRC24D	750XBXRM4L24D	750XCXRM4L24D
Screw terminal socket		704641	704651	704641	704651



RPF power relays			
Contact		2 NO	2 CO
Current		30 A (1)	30 A (1)
Complete product	120 VAC	RPF2AF7	RPF2BF7
	230 VAC	RPF2AP7	RPF2BP7

92 power relays			
Contact		2 NO	2 CO
Current		30 A (1)	NO: 30 A, NC:3 A (1)
Connection		Flat pins (faston type)	
Complete product	24 VAC	92S7A22D24	92S11A22D24
	120 VAC	92S7A22D120	92S11A22D120
	24 VDC	–	92S11D22D24

(1) 30 A when mounted with 13 mm (0.51 in.) gap between two relays and 25 A when mounted side by side without a gap.



725 power relays			
Contact		1 NO	2 NO
Current		30 A	25 A
Connection		Screw terminals	
Complete product	120 VAC	725AXXSC3ML120A	725BXXSC3ML120A
	240 VAC	725AXXSC3ML240A	725BXXSC3ML240A
	24 VDC	725AXXSC3ML24D	725BXXSC3ML24D

# Square D™ 8501 relays and SE 750H and 861 relays



## 8501RS31 miniature C1D2 relays

<b>Contact</b>		4 CO
<b>Current</b>		5 A
<b>Connection</b>		Flat pins (faston type)
<b>Complete product</b>	120 VAC	<b>8501RS34V20</b>
	24 VDC	<b>8501RSD34V53</b>
<b>Screw clamp socket</b>		<b>RXZE2M114</b>
<b>Screw connector socket</b>		<b>RXZE2S114M</b>
<b>Screw clamp socket</b>		<b>70782D141</b>
<b>Screw terminal socket</b>		<b>704611</b>



## 750H octal C1D2 relays

<b>Contact</b>		2 CO	3 CO
<b>Current</b>		10 A	
<b>Connection</b>		Cylindrical / octal PINs	
<b>Complete Product</b>	120 VAC	<b>750XBXH120A</b>	<b>750XCXH120A</b>
	24 VDC	<b>750XBXH24D</b>	<b>750XCXH24D</b>
<b>Screw terminal socket</b>		<b>704641</b>	<b>704651</b>



## 861H solid state C1D2 relays

<b>Input Characteristics</b>		
<b>Input Voltage Range</b>	3.5–32 VDC	90–280 VAC
<b>Must Release Voltage</b>	1 VDC	10 VAC
<b>Nominal Input Impedance</b>	Current regulator	16–25 kΩ
<b>Typical Input Current at 5 VDC</b>	12 mA	12 mA
<b>Reverse Polarity Protection</b>	Yes	N/A
<b>Output Characteristics</b>		
<b>Switching Device</b>	MOSFET	SCR
<b>Switching Type</b>	DC Switching	AC Zero Cross; AC Random
<b>Contact Configuration</b>	SPST-NO	SPST-NO, SPST-NC
<b>Output Voltage Range</b>	3–50 VDC; 3–150 VDC	24–480 VAC; 48–480 VAC; 48–600 VAC
<b>Configuration</b>	1 NO	1 NO
<b>Current</b>	8 A	10 A
<b>Connection</b>	Screw terminals	
<b>Complete Product</b>	<b>861HSSR208DD</b>	<b>861HSSR210AC1</b>

# Harmony™ SSL and SSP solid-state relays



## SSL1 slim interface solid state relays (DC switching)

Type	SSL1 relays (6 mm)		Screw connector socket	Spring terminal socket
Contact	1 NO		–	–
Load current	0.1 A	3.5 A	–	–
Load voltage	1...48 VDC	1...24 VDC	–	–
Complete product	3...12 VDC	SSL1D101JD	SSL1D03JD	SSLZVA1
	15...30 VDC	SSL1D101BD	SSL1D03BD	SSLZVA1
Pre-mounted product	4...12 VDC	SSL1D101JDPV (1)	SSL1D03JDPV (1)	–
	16...30 VDC	SSL1D101BDPV (1)	SSL1D03BDPV (1)	–
	4...12 VDC	SSL1D101JDPR (2)	SSL1D03JDPR (2)	–
	16...30 VDC	SSL1D101BDPR (2)	SSL1D03BDPR (2)	–

## SSL1 slim interface solid state relays (random switching)

Type	SSL1 relays (6 mm)		Screw connector socket	Spring terminal socket
Contact	1 NO		–	–
Load current	2 A		–	–
Load voltage	24...280 VAC		–	–
Complete product	3...12 VDC	SSL1A12JDR	SSLZVA1	SSLZRA1
	15...30 VDC	SSL1A12BDR	SSLZVA1	SSLZRA1
Load voltage	24...250 VAC		–	–
Pre-mounted product	4...12 VDC	SSL1A12JDRPV (1)	–	–
	16...30 VDC	SSL1A12BDRPV (1)	–	–
	4...12 VDC	SSL1A12JDRPR (2)	–	–
	16...30 VDC	SSL1A12BDRPR (2)	–	–

## SSL1 slim interface solid state relays (zero voltage switching)

Type	SSL1 relays (6 mm)		Screw connector socket	Spring terminal socket
Contact	1 NO		–	–
Load current	2 A		–	–
Load voltage	24...280 VAC		–	–
Complete product	3...12 VDC	SSL1A12JD	SSLZVA1	SSLZRA1
	15...30 VDC	SSL1A12BD	SSLZVA1	SSLZRA1
Load voltage	24...250 VAC		–	–
Pre-mounted product	4...12 VDC	SSL1A12JDPV (1)	–	–
	16...30 VDC	SSL1A12BDPV (1)	–	–
	4...12 VDC	SSL1A12JDPR (2)	–	–
	16...30 VDC	SSL1A12BDPR (2)	–	–



1



2



3

## 1 SSP1 1-phase panel mount solid state relays (DC switching)

Contact	1 NO		
Load current (3)	12 A	25 A	40 A
Load voltage	1...150 VDC		
Complete product (4)	3.5...32 VDC	SSP1D412BD●	SSP1D425BD●
			SSP1D440BD●

## 2 SSP1 1-phase panel mount solid state relays (zero voltage switching)

Contact	1 NO							
Load current (3)	10 A	25 A	50 A	50 A	75 A	75 A	90 A	125 A
Load voltage	24...300 VAC	24...300 VAC	24...300 VAC	48...660 VAC	24...300 VAC	48...660 VAC	48...660 VAC	48...660 VAC
Complete product (4)	4...32 VDC	SSP1A110BD●	SSP1A125BD(5)	SSP1A150BD(5)	SSP1A450BD(5)	SSP1A175BD●	SSP1A475BD(5)	SSP1A490BD(5)
	90...280 VAC	SSP1A110M7T	SSP1A125M7●	SSP1A150M7●	SSP1A450M7●	SSP1A175M7T	SSP1A475M7●	SSP1A490M7●
								SSP1A4125M7●

## 3 SSP3 3-phase panel mount solid state relays (random and zero voltage switching)

Contact	3 NO			
Load current (3)	25 A		50 A	
Load voltage	48...530 VAC			
Switching	Random		Zero Voltage	
Complete product (4)	4...32 VDC	SSP3A225BDR●	SSP3A250BDR●	SSP3A225BD●
	18...36 VAC	SSP3A225B7R	SSP3A250B7R●	SSP3A250B7●
	90...140 VAC	–	SSP3A250F7R●	SSP3A225F7●
	180...280 VAC	SSP3A225P7R	SSP3A250P7R●	SSP3A225P7●
				SSP3A250P7●

(1) SSL pre-mounted version includes relay + socket (screw), sold in lots of 30 units.

(2) SSL pre-mounted version includes relay + socket (spring), sold in lots of 30 units.

(3) Please use correct heatsink for desired load current: see performance curves in product datasheets available on our website [www.schneider-electric.com](http://www.schneider-electric.com) for selection.

(4) ● represents T, reference is available with thermal pad (ends with T) or without thermal pad (does not end with T) options.

(5) Available with smart diagnostic feature. Built-in visual indicator and alarm output enables quick response to unexpected results and correct monitoring of SSR operation. Reference ends with S; for example, SSP1A125BDS.

# Harmony™ 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	
Frontal width	12 mm		18 mm		
Complete product	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	
Frontal width	12 mm			18 mm			
Complete product	4...32 VDC	SSM1A16BDR	SSM1A36BDR	SSM1A112BDR	SSM1A312BDR	SSM2A16BDR	SSM2A36BDR
	18...36 VAC	SSM1A16B7R	-	SSM1A112B7R	SSM1A312B7R	-	-
	90...140 VAC	-	-	SSM1A112F7R	SSM1A312F7R	-	-
	200...265 VAC	-	-	SSM1A112P7R	SSM1A312P7R	-	-

## SSM modular DIN rail solid state relays (zero voltage 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	
Frontal width	12 mm			18 mm		
Complete product	4...32 VDC	SSM1A16BD	SSM1A36BD	SSM1A112BD	SSM1A312BD	SSM2A16BD
	90...140 VAC	SSM1A16F7	-	SSM1A112F7	SSM1A312F7	-
	200...265 VAC	SSM1A16P7	-	SSM1A112P7	-	-



## SSD modular DIN rail solid state relays (zero voltage switching)

Contact	1 NO								
Output voltage	48...600 VAC								
Frontal width	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	SSD1A320BDC1	SSD1A320M7C1	SSD1A335BDC1	SSD1A335M7C1	-	-	-	
	Contact - Screw	SSD1A320BDC2	SSD1A320M7C2	SSD1A335BDC2	SSD1A335M7C2	SSD1A345BDC2	SSD1A345M7C2	SSD1A360BDC2	SSD1A360M7C2
	Contact - Spring	SSD1A320BDC3	SSD1A320M7C3	SSD1A335BDC3	SSD1A335M7C3	SSD1A345BDC3	SSD1A345M7C3	SSD1A360BDC3	SSD1A360M7C3

## SSD modular DIN rail solid state relays (random switching)

Contact	1 NO								
Output voltage	48...600 VAC								
Frontal width	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	SSD1A320B-DRC1	SS-D1A320M7RC1	SSD1A335B-DRC1	SS-D1A335M7RC1	-	-	-	
	Contact - Screw	SSD1A320B-DRC2	SS-D1A320M7RC2	SSD1A335B-DRC2	SS-D1A335M7RC2	SSD1A345B-DRC2	SS-D1A345M7RC2	SSD1A360B-DRC2	SS-D1A360M7RC2
	Contact - Spring	SSD1A320B-DRC3	SS-D1A320M7RC3	SSD1A335B-DRC3	SS-D1A335M7RC3	SSD1A345B-DRC3	SS-D1A345M7RC3	SSD1A360B-DRC3	SS-D1A360M7RC3

## SSD modular DIN rail solid state relays (DC switching)

Contact	1 NO	
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™ Relay RM17, RM22, and RM35 control relays



1



2



3



4

## 1 3-phase monitoring relays for DIN rail mounting

Phase loss and sequence	Yes						
Asymmetry	-	Yes	-	Yes	-	Yes	-
Undervoltage	-	Yes			-		
> U > window mode	-	Yes					
Measuring range	183...528 VAC	183...484 VAC	183...528 VAC	183...528 VAC	160...288 VAC	183...528 VAC	304...576 VAC
Output contacts/Current	1 CO/5 A	2 CO/5 A	1 CO/5 A		2 CO/8 A	1 CO/5 A	2 CO/8 A
Power supply	Self-powered						
Frontal width	17.5 mm				22.5 mm	17.5 mm	22.5 mm
Complete product	RM17TG00	RM17TG20	RM17TA00	RM17TU00	RM22TU21	RM17TE00	RM22TR33

## 2 3-phase monitoring relays with NFC technology for DIN rail mounting

Phase loss and sequence	Yes
Asymmetry	Yes
Overvoltage and undervoltage	Yes
Overfrequency and underfrequency	Yes
Measuring range	166...576 VAC
Output contact	2 C/O 8 A
Power supply	208...480 VAC
Frontal width	22.5 mm
Complete product	RMNF22TB30

## 3 3-phase voltage monitoring relays for DIN rail mounting

Detected loss of one or more phases	Yes		
Absence of neutral	-	Yes	-
Overvoltage and undervoltage	Yes		
Measuring range	183...528 VAC	114...329 VAC	194...528 VAC
Output contacts/Current	1 CO/5 A	1 CO/5A for > U threshold + 1 CO/5A for < U threshold	
Power supply	Self-powered		
Frontal width	17.5 mm	35 mm	
Complete product	RM17UB310	RM35UB3N30	RM35UB330

## 4 Phase or DC voltage monitoring relays for DIN rail mounting

> U > window mode	Yes						
Overvoltage	Yes						-
Undervoltage	Yes						-
Measuring range	65...260 VAC/ VDC	20...80 VAC/VDC	0.05...5 VAC/VDC	1...100 VAC/VDC	15...500 VAC/VDC	15...500 VAC/VDC	80...300 VAC/ VDC
Output contacts/Current	1 CO/5 A			2 CO/8 A			
Power supply	Self-powered			24...240 VAC		380...415 VAC	110...240 VAC
Frontal width	17.5 mm			22.5 mm			
Complete product	RM17UBE15	RM17UBE16	RM22UA31MR	RM22UA32MR	RM22UA33MR	RM22UA33MT	RM22UB34



5



6

## 5 Current monitoring relays for DIN rail mounting

Monitoring characteristics	Overcurrent	> I > window mode with/without memory					
Integrated current transformer	Yes	-					
Measuring range	2...20 A	4...1,000 mA	2...500 mA	0.15...15 A			
Output contacts/Current	1 CO/5 A	2 CO/8 A	2 CO/5 A		2 CO/8 A		
Power supply	24...240 VAC/VDC					380...415 VAC	
Frontal width	17.5 mm	22.5 mm	35 mm				
Complete product	RM17JC00MW	RM22JA31MR	RM35JA31MW	RM35JA32MW	RM35JA32MR	RM35JA32MT	

## 6 Level monitoring relays for DIN rail mounting

Level monitoring by	Resistive probe					Discrete sensor	
Measuring range	5...100 kΩ		25 Ω...1 MΩ			-	
Output contacts/Current	1 CO/8 A		2 CO/8 A		2 CO/5 A	1 CO/5 A	
Power supply	24...240 VAC/VDC	380...415 VAC	24...240 VAC/VDC	380...415 VAC	24...240 VAC/VDC	24...240 VAC/VDC	
Frontal width	22.5 mm				35 mm		
Complete product	RM22LG11MR	RM22LG11MT	RM22LA32MR	-	RM35LM33MW	RM35LV14MW	

(1) Please consult our general catalog for other application relays available for motor temperature monitoring and pump, frequency, speed, or temperature control.

# Harmony™ Relay electronic timing relays



1 Timing relays with screw/spring 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 - screw terminal	RE17LAMW	RE17RAMU	RE17RLMU	RE17RCMU	RE17RMMW	RE17RMXMU
Complete product - spring terminal	RE17LAMWS	RE17RAMUS	RE17RLMUS	RE17RCMUS	RE17RMMWS	RE17RMXMUS

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 CO/8 A
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 (power on-delay)					
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
Screw connector socket (2)	RXZE2S108M			RXZE2S114M		

5 48 x 48 mm analog plug-in (8-pin) 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 (3)	RUZC2M		RUZC3M			

- A: power on-delay relay
- Ac: on-delay & off-delay relay (4)
- Act: on-delay & off-delay relay (4) (5)
- Ad: pulse delayed relay (4)
- Ah: pulse delayed relay (single cycle) (4)
- Ak: asymmetrical on-delay & off-delay relay (4)
- Akt: asymmetrical on-delay & off-delay relay (4) (5)
- At: power on-delay relay (5)
- 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 (4)
- Bw: double interval relay (4)
- C: off-delay relay (4)
- Ct: off-delay relay (5)
- D: symmetrical flashing relay (starting pulse-off)
- Di: symmetrical flashing relay (starting pulse-on)
- Dit: symmetrical flashing relay (starting pulse-on) (5)
- Diw: symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal
- Dt: symmetrical flashing relay (starting pulse-off) (5)
- Dw: symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal
- H: interval relay
- He: pulse on de-energization relay
- Ht: interval relay (5)
- 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 (5)
- N: safeguard relay
- O: delayed safeguard relay
- P: pulse delayed relay with fixed pulse length
- Pt: pulse delayed relay with fixed pulse length (5)
- 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 (5)
- Qt: star-delta timing relay, 2 CO outputs & split common
- Qtt: star-delta timing relay, 2 CO outputs & split common (5)
- Tt: retriggerable bistable relay with control signal on
- W: interval relay with control signal off
- Wt: interval relay with control signal off (5)

(1) For more details about functions, please refer to the technical descriptions and schemes on our website [www.schneider-electric.com](http://www.schneider-electric.com).  
 (2) With separate contacts (3) With mixed contacts (4) With control signal (5) With pause-summation control signal

# SE time delay relays



## 820 timers

Input Voltage	Functions	Timing Range	Contact Configuration	Rated Current	Standard Part Number
12–240 VAC/VDC	Multifunction (10 available functions)	10 ms to 10 days	1 CO	15 A	821TD10HUNI
			2 CO	15 A	822TD10HUNI



# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

<b>Input Voltage</b>	100...240 Vac							
<b>Nominal output power@</b>	10 W	12 W	15 W	18 W	25 W	30 W	50 W	60 W
								

<b>Power supply type</b>	Modicon ABLM Modular power supply							
<b>Output voltage</b> 5V				ABLM1A05036				
12V		ABLM1A12010			ABLM1A12021		ABLM1A12042	
24V	ABLM1A24004		ABLM1A24006			ABLM1A24012		ABLM1A24025
48V								

# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

<b>Input Voltage</b>	100...240 Vac, 140...340 Vdc (2)					
<b>Nominal output power@</b>	50 W	75 W	91.2 W	120 W	240 W	480 W



<b>Power supply type</b>	<b>Modicon ABLS Optimized power supply</b>					
<b>Output voltage 5V</b>						
12V		ABLS1A12062		ABLS1A12100		
24V	ABLS1A24021	ABLS1A24031	ABLS1A24038	ABLS1A24050	ABLS1A24100	ABLS1A24200
48V				ABLS1A48025		

(2) Except ABL S1A24021 and ABL S1A24038.

# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

<b>Input Voltage</b>	100...120 Vac and 200...500 Vac			100...120 Vac, 200...240 Vac	380...500 Vac	
<b>Nominal output power@</b>	75 W	120 W	240 W	480 W	480 W	960 W



<b>Power supply type</b>	Modicon ABL8RP/WP Universal power supply					
<b>Output voltage</b> 5V						
12V						
24V	ABL8RPS24030	ABL8RPS24050	ABL8RPS24100	ABL8RPM24200	ABL8WPS24200	ABL8WPS24400
48V						

# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

Functional modules for Modicon ABL8RP/WP Universal Power Supply

Functionality	Supplying 5 Vdc to 15 Vdc auxiliary voltage	Continuity of service after the power supply equipment stop functioning
---------------	---	---



Input Voltage	24 Vdc		
Output voltage	5...6.5 Vdc	7...15 Vdc	24 Vdc
Functional module type	Converter module		Redundancy module
Output current	2 A		<a href="#">ABL8DCC12020</a>
	6 A		<a href="#">ABL8DCC05060</a>
	10 A		
	20 A		
	40 A		<a href="#">ABL8RED24400</a>
Battery capacity	3.2 Ah		
	7 Ah		
	12 Ah		

# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

Functional modules for Modicon ABL8RP/WP Universal Power Supply

## Functionality

## Continuity of service: Solutions to microbreaks and power outages



## Input Voltage

24 Vdc

## Output voltage

24 Vdc

## Functional module type

### Battery control modules

### Buffer module

### Battery modules (continued on next page)

## Output current

2 A

6 A

10 A

20 A

40 A

[ABL8BBU24200](#)

[ABL8BBU24400](#)

[ABL8BUF24400](#)

## Battery capacity

3.2 Ah

7 Ah

12 Ah

[ABL8BPK24A03](#)

# Modicon™ power supplies

Regulated power supply for industrial use, rail mounting

Functional modules for Modicon ABL8RP/WP Universal Power Supply

## Functionality

Continuity of service: Solutions to microbreaks and power outages

Solution for discriminating protection of the application



Input Voltage	
Output voltage	
Functional module type	
Output current	2 A
	6 A
	10 A
	20 A
	40 A
Battery capacity	3.2 Ah
	7 Ah
	12 Ah

		24 Vdc
		24 Vdc
Battery modules (continued)		Protection module
		<a href="#">ABL8PRP24100</a>
	<a href="#">ABL8BPK24A07</a>	
	<a href="#">ABL8BPK24A12</a>	

# Zelio™ smart relays

Zelio Logic smart relays are designed for use in small automated systems in both industrial and commercial applications. Their compact size and ease of setup make them a competitive alternative to solutions.

Simple programming meets the requirements of automation specialists and the needs of electricians. Programming can be performed using a PC with Zelio Soft 2 software.

When using a PC, programming can be performed either in ladder language or in function block diagram (FBD) language. This software is available for Free download at [https://www.schneider-electric.com/en/download/document/ZelioSoft2\\_V5\\_1](https://www.schneider-electric.com/en/download/document/ZelioSoft2_V5_1)

Other Zelio Smart relays and associated accessories and options are available upon request. Additional information is available at [www.schneider-electric.com/en/product-range/531-smart-relay---zelio-logic-sr2-sr3](http://www.schneider-electric.com/en/product-range/531-smart-relay---zelio-logic-sr2-sr3)

## Zelio Smart Relays - Not expandable



Catalog Number	Description
SR2A101FU	Compact smart relay Zelio Logic - 10 I O - 100..240 V AC - no clock - display
SR2B121FU	Compact smart relay Zelio Logic - 12 I O - 100..240 V AC - clock - display
SR2B201FU	Compact smart relay Zelio Logic - 20 I O - 100..240 V AC - clock - display

## Expandable Zelio Smart Relay

Expandable by adding up to 1 expansion module below



Catalog Number	Description
SR3B101FU	Modular smart relay Zelio Logic - 10 I O - 100..240 V AC - clock - display
SR3B261FU	Modular smart relay Zelio Logic - 26 I O - 100..240 V AC - clock - display

## Zelio Smart Expansions

Up to 1 can be added to the above modular relays



Catalog Number	Description
SR3XT101FU	Discrete I/O extension module - 10 I O - 100..240 V AC - for Zelio Logic

## Cable for PC to Relay program download - 1 needed per customer



Catalog Number	Description
SR2CBL01	SUB-D 9-pin PC connecting cable - for smart relay Zelio Logic - 3 m

*NOTE: All Zelio Smart Relays are programmable using the free download software below. Also, you must have S22CBL01 cable for loading the program from the computer into the relay.*

[www.schneider-electric.com/en/download/document/ZelioSoft2\\_V5\\_1](https://www.schneider-electric.com/en/download/document/ZelioSoft2_V5_1)

More information:

[www.schneider-electric.com/en/product-range-presentation/531-smart-relay---zelio-logic-sr2-sr3/?parent-category-id=3900&parent-subcategory-id=3920&filter=business-1-industrial-automation-and-control#abs-top](http://www.schneider-electric.com/en/product-range-presentation/531-smart-relay---zelio-logic-sr2-sr3/?parent-category-id=3900&parent-subcategory-id=3920&filter=business-1-industrial-automation-and-control#abs-top)

Complete Catalog:

[http://download.schneider-electric.com/files?p\\_enDocType=Catalog&p\\_File\\_Name=DIA3ED2111202EN.pdf&p\\_Doc\\_Ref=DIA3ED2111202EN](http://download.schneider-electric.com/files?p_enDocType=Catalog&p_File_Name=DIA3ED2111202EN.pdf&p_Doc_Ref=DIA3ED2111202EN)

# Modicon™ M221 PLC

## Modicon M221 PLC: the right performance solution for its size!

The Modicon M221 logic controller offers capable performance. Everything you need is embedded.

- SD card and USB port
- 2 analog inputs and a broad choice of I/Os
- Run/stop switch and cartridge extension
- Ethernet and serial line ports
- High degree of flexibility lets you add additional modules easily
- Extensive line of analog and digital modules
- Intuitive machine programming with EcoStruxure Machine Expert - Basic software
- Simple navigation delivers a more efficient engineering process
- All programming, visualization, and commissioning are handled in just one intuitive tool
- Available as a free download
- No training required

The Modicon M221 logic controller is a EcoStruxure™ Machine controller. EcoStruxure Machine from Schneider Electric is an intuitive solution for machine automation with all the features and functions you need to build machines that will improve your bottom line. From design and development, to commissioning and maintenance, EcoStruxure Machine is a complete machine building solution with benefits all through the machine life cycle.

SoMachine™ Software Basic Download

[www.schneider-electric.com/en/download/document/SoMachineBasicV1.6SP2/](http://www.schneider-electric.com/en/download/document/SoMachineBasicV1.6SP2/)

### Modicon M221 Programmable Logic Controllers (PLC)



Catalog Number	Description
TM221ME16R	Controller M221 16 IO with relay outputs and Ethernet (24VDC control voltage)
TM221CE24R	Controller M221 24 IO with relay outputs and Ethernet (100-240 VAC control voltage)

### Modicon TM3 Expansion Modules to increase input/output capacity

Up to 7 modules can be added to a single Modicon M221 PLC





Catalog Number	Description
TM3DQ16R	Module TM3 - 16 outputs relays
TM3DI16	Module TM3 - 16 inputs
TM3DQ8R	Module TM3 - 8 outputs relays
TM3AI4	Module TM3 - 8 analog inputs
TM3AQ4	Module TM3 - 4 analog outputs







Webpage: [www.schneider-electric.com/en/product-range/62128-logic-controller---modicon-m221/](http://www.schneider-electric.com/en/product-range/62128-logic-controller---modicon-m221/)  
Catalog: [www.schneider-electric.com/en/download/document/DIA3ED2140106EN/](http://www.schneider-electric.com/en/download/document/DIA3ED2140106EN/)



# Magelis™ HMI

Product Image	Product Family	Catalog #	Description	Display Size	Mounting Style	Programming Software	Stock Qty
	STU	HMISTU655	Touch panel screen 3.5" Color	3.5"	22 mm cut-out	Vijeo™ Designer	3
		HMISTU855	Touch panel screen 5.7" Color	5.7"	22 mm cut-out	Vijeo Designer	3
	STO	HMISTO715	4.3" wide screen touch panel, RS-232/485 RJ45	4.3"	Panel cut-out	Vijeo XD	1

# Ethernet switches

	Reference Number	Description	Ethernet Switch Type		
			Unmanaged	Standard	Premium
	TCSESSU083FN0	<b>Standard</b> Unmanaged Switch - 8 TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications. No Premium configuration capabilities.	■	■	
	TCSESPU083FN0	<b>Premium</b> Unmanaged Switch – 8TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications	■		■
	TCSESPU053F1CU0	<b>Premium</b> Unmanaged Switch – 4 TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications 1 x 100BASE-FX MM fiber optic port with an SC connector.	■		■
	TCSESPU093F2CU0	<b>Premium</b> Unmanaged Switch – 7 TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications 2 x 100BASE-FX MM fiber optic port with an SC connector.	■		■
	TCSESPU053F1CS0	<b>Premium</b> Unmanaged Switch – 4 TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications 1 x 100BASE-FX SM fiber optic port with an SC connector.	■		■
	TCSESPU093F2CS0	<b>Premium</b> Unmanaged Switch – 7 TX (copper cable) ports using RJ 45 connectors that supports 10/100 Mbit/s communications 2 x 100BASE-FX SM fiber optic port with an SC connector.	■		■

*NOTE: Premium Unmanaged include the following features:*

*Global settings: Power supply, Unit alarm, Aging time, QoS 802.1p mapping, QoS DSCP, mapping; QoS Trust Mode*

*Port settings: Flow control, Port admin state, Broadcast storm protection/threshold, multicast storm protection/threshold, port based priority, link alarm*

*TX port settings: auto-negotiation, speed, duplex mode, auto-crossing, MDI state, energy efficient Ethernet*

# Spacial™ CRN, Spacial steel S3DC, and Spacial stainless-steel S3X (304L) wall-mounting enclosures



## Spacial™ CRN, Spacial steel S3DC, and Spacial stainless-steel S3X (304L) wall-mounting enclosures (1) multi-purpose steel wall-mounting enclosures (2)

Degree of protection: IP66. Mechanical protection: IK10P. Finish: painted with textured epoxy-polyester resin in RAL7035 light gray

Product type	Enclosures						Mounting plates					
	Height		Width		Depth		Spacial CRN best value	Spacial S3DC made for US	Spacial stainless-steel S3X (304L)	Plain	White	Micro-perforated
Description	mm	(in.)	mm	(in.)	mm	(in.)						
Reference according to dimensions (H x W x D) in mm (in.)	200	(7.9)	200	(7.9)	–	–	–	–	–	NSYMM22	–	–
	250	(9.8)	200	(7.9)	150	(5.9)	NSYCRN252150	–	–	NSYMM2520	–	–
	300	(11.8)	200	(7.9)	150	(5.9)	–	NSYS3DC3215	NSYS3X3215	NSYMM32	NSYMM32WH	–
	300	(11.8)	250	(9.8)	150	(5.9)	NSYCRN325150	–	NSYS3X302515	NSYMM3025	–	–
	300	(11.8)	250	(9.8)	200	(7.9)	NSYCRN325200	–	–	NSYMM3025	–	–
	300	(11.8)	300	(11.8)	150	(5.9)	NSYCRN33150	NSYS3DC3315	SYS3X3315	NSYMM33	NSYMM33WH	–
	300	(11.8)	300	(11.8)	200	(7.9)	NSYCRN33200	NSYS3DC3320	–	NSYMM33	NSYMM33WH	–
	300	(11.8)	400	(15.6)	200	(7.9)	–	NSYS3DC3420	–	–	–	–
	400	(15.6)	300	(11.8)	150	(5.9)	NSYCRN43150	NSYS3DC4315	–	NSYMM43	NSYMM43WH	–
	400	(15.6)	300	(11.8)	200	(7.9)	NSYCRN43200	NSYS3DC4320	NSYS3X4320	NSYMM43	NSYMM43WH	–
	400	(15.6)	400	(15.6)	200	(7.9)	NSYCRN44200	NSYS3DC4420	NSYS3X4420	NSYMM44	NSYMM44WH	–
	500	(19.7)	400	(15.6)	150	(5.9)	NSYCRN54150	–	–	NSYMM54	NSYMM54WH	–
	500	(19.7)	400	(15.6)	200	(7.9)	NSYCRN54200	NSYS3DC5420	NSYS3X5420	NSYMM54	NSYMM54WH	–
	500	(19.7)	400	(15.6)	250	(9.8)	NSYCRN54250	NSYS3DC5425	–	NSYMM54	NSYMM54WH	–
	500	(19.7)	500	(19.7)	200	(7.9)	–	NSYS3DC5520	–	NSYMM55	NSYMM55WH	NSYMF55
	500	(19.7)	500	(19.7)	250	(9.8)	NSYCRN55250	NSYS3DC5525	–	NSYMM55	NSYMM55WH	NSYMF55
	600	(23.6)	400	(15.6)	150	(5.9)	–	–	–	NSYMM64	NSYMM64WH	–
	600	(23.6)	400	(15.6)	200	(7.9)	NSYCRN64200	NSYS3DC6420	NSYS3X6420	NSYMM64	NSYMM64WH	–
	600	(23.6)	400	(15.6)	250	(9.8)	–	NSYS3DC6425	–	NSYMM64	NSYMM64WH	–
	600	(23.6)	500	(19.7)	150	(5.9)	–	–	–	NSYMM65	–	–
	600	(23.6)	500	(19.7)	200	(7.9)	NSYCRN65200	–	–	NSYMM65	–	–
	600	(23.6)	500	(19.7)	250	(9.8)	NSYCRN65250	–	–	NSYMM65	–	–
	600	(23.6)	600	(23.6)	200	(7.9)	–	NSYS3DC6620	–	NSYMM66	NSYMM66WH	–
	600	(23.6)	600	(23.6)	250	(9.8)	–	NSYS3DC6625	NSYS3X6625	NSYMM66	NSYMM66WH	–
	600	(23.6)	600	(23.6)	300	(11.8)	NSYCRN66300	NSYS3DC6630	–	NSYMM66	NSYMM66WH	–
	600	(23.6)	600	(23.6)	400	(15.6)	–	–	–	NSYMM66	NSYMM66WH	–
	700	(27.6)	500	(19.7)	200	(7.9)	NSYCRN75200	–	–	NSYMM75	NSYMM75WH	–
	700	(27.6)	500	(19.7)	250	(9.8)	NSYCRN75250	NSYS3DC7525	NSYS3X7525	NSYMM75	NSYMM75WH	–
	800	(31.5)	600	(23.6)	200	(7.9)	NSYCRN86200	NSYS3DC8620	–	NSYMM86	NSYMM86WH	–
	800	(31.5)	600	(23.6)	250	(9.8)	NSYCRN86250	NSYS3DC8625	NSYS3X8625	NSYMM86	NSYMM86WH	–
	800	(31.5)	600	(23.6)	300	(11.8)	NSYCRN86300	NSYS3DC8630	–	NSYMM86	NSYMM86WH	–
	800	(31.5)	600	(23.6)	400	(15.6)	–	NSYS3DC8640	–	NSYMM86	NSYMM86WH	–
	800	(31.5)	800	(31.5)	200	(7.9)	–	–	–	NSYMM88	–	–
	800	(31.5)	800	(31.5)	250	(9.8)	–	NSYS3DC8825	–	NSYMM88	–	–
	800	(31.5)	800	(31.5)	300	(11.8)	NSYCRN88300	NSYS3DC8830	–	NSYMM88	–	–
	1000	(39.4)	600	(23.6)	250	(9.8)	–	NSYS3DC10625	–	NSYMM106	NSYMM106WH	NSYMF106
	1000	(39.4)	600	(23.6)	300	(11.8)	NSYCRN106300	–	–	NSYMM106	NSYMM106WH	NSYMF106
	1000	(39.4)	600	(23.6)	400	(15.6)	–	–	–	NSYMM106	NSYMM106WH	NSYMF106
	1000	(39.4)	800	(31.5)	250	(9.8)	–	NSYS3DC10825	–	NSYMM108	NSYMM108WH	–
	1000	(39.4)	800	(31.5)	300	(11.8)	NSYCRN108300	NSYS3DC10830	NSYS3X10830	NSYMM108	NSYMM108WH	–
	1000	(39.4)	800	(31.5)	400	(15.6)	–	NSYS3DC10840	–	NSYMM108	NSYMM108WH	–
	1000	(39.4)	1000	(39.4)	300	(11.8)	–	NSYS3DC101030	–	NSYMM1010	–	–
1200	(47.2)	800	(31.5)	–	–	–	–	–	NSYMM128	–	NSYMF128	
1200	(47.2)	1000	(39.4)	–	–	–	–	–	NSYMM1210	–	–	

(1) Multi-purpose enclosures are empty enclosures meeting the majority of application requirements. The Spacial S3DC offer also comprises applicative enclosures for terminals, EMC (electromagnetic compatibility), VDI (Voice/Data/Image), HMI (human-machine interface), 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 representative.

(2) For other versions without mounting plate, with glazed door (IK0P8) or double door (IP55), see the Enclosures catalog on our website [www.schneider-electric.com/enclosures](http://www.schneider-electric.com/enclosures). In order to check the availability of this range in your country, please contact your local representative.

# Accessories for Spacial™ CRN, steel S3DC, and stainless-steel S3X (304L) wall-mounting enclosures

Accessories for Spacial CRN, steel S3DC, and stainless-steel S3X (304L) wall-mounting enclosures	
Description	Reference
4 Steel wall-mounting brackets for S3DC	NSYAEFPFSC
Lock with padlock for spacial CRN	NSYCBCCRN
4 Wall-fixing brackets for CRN	NSYPFCR
4 Adjustable step slides 300 mm D	NSYSDCR300
Din rail - 2000 mm galvanized steel - Type A - not perforated	NSYSDR200
Din rail - 2000 mm galvanized steel - Type B - not perforated	NSYSDR200B
Din rail - 2000 mm galvanized steel - Type B - perforated	NSYSDR200BD
4 Stainless-steel wall-mounting brackets	NSYPFCX
Padlockable double lock S3DC	NSYAEDLPADS3D
3 mm Double-bar lock for S3DC	NSYAEDLS3DRL
3 mm Double-bar lock for 405 key used with S3HF	NSYCLL405CRN
Plastic key for 3 mm double-bar lock	NSYDBP
Reinforcement kit mounting plate 1600 mm W	NSYMPRK16



## Spacial floor-standing steel enclosures

### Galvanized monoblock enclosures with mounting plate

Reference according to dimensions (H x W x D) in mm (in.)	Height		Width		Depth		Enclosure type	Reference
	mm	(in.)	mm	(in.)	mm	(in.)		
	1400	(55.1)	800	(31.5)	400	(15.6)	1 Door	NSYSM14840P
	1600	(63.0)	800	(31.5)	400	(15.6)	1 Door	NSYSM16840P
	1800	(70.9)	1000	(39.4)	400	(15.6)	1 Door	NSYSM181040P
	1800	(70.9)	800	(31.5)	500	(19.7)	1 Door	NSYSM18850P
	2000	(78.7)	800	(31.5)	500	(19.7)	1 Door	NSYSM20850P
	1600	(63.0)	1000	(39.4)	400	(15.6)	2 Door	NSYSM1610402DP
	1800	(70.9)	1000	(39.4)	400	(15.6)	2 Door	NSYSM1810402DP
	1800	(70.9)	1000	(39.4)	500	(19.7)	2 Door	NSYSM1810502DP
	1800	(70.9)	1200	(47.2)	400	(15.6)	2 Door	NSYSM1812402DP
	1800	(70.9)	1200	(47.2)	500	(19.7)	2 Door	NSYSM1812502DP
	1800	(70.9)	1600	(63.0)	500	(19.7)	2 Door	NSYSM1816502DP
	2000	(78.7)	1000	(39.4)	500	(19.7)	2 Door	NSYSM2010502DP

## Accessories for Spacial floor-standing steel enclosures

Description	Reference
2 Standard side panels 2000 mm x 600 mm	NSY2SP206
4 Eye bolts M12 SM	NSYSMEB
Fixing supp mounting plate back position	NSYSMPFB
Standard coupling kit SF	NSYSFBK
4 Eye bolts M12 SM	NSYSFEB
Front and back plinth 100 mm x 1000 mm	NSYSPF10100
Front and back plinth 100 mm x 600 mm	NSYSPF6100
Front and back plinth 100 mm x 800 mm	NSYSPF8100
2 Plinth side panels 100 mm x 400 mm	NSYSPS4100
2 Plinth side panels 100 mm x 600 mm	NSYSPS6100
2 Plinth side panels 100 mm x 800 mm	NSYSPS8100
2 Universal rails 1 row 1800 mm	NSYSUCR40180
2 Universal rails 1 row 600 mm	NSYSUCR4060
20 Double profile DIN rail 2 m 1 mm thick	NSYDPR200T
A4 Plastic document pocket 234 mm x 234 mm x 40 mm for SF or SM	NSYDPA4

# Thalassa™ TBP industrial boxes and insulated enclosures



## Thalassa™ polyester industrial boxes and insulated enclosures

Product type							Industrial boxes	Mounting plates (Industrial boxes only)	Wall mount enclosures
Description	Height		Width		Depth		Degree of protection: IP65 Mechanical protection: IK09 Color: RAL7035 light gray		Degree of protection: IP65 Mechanical protection: IK10 (IK08 for transparent doors) Color: RAL7035 light gray
	mm	(in.)	mm	(in.)	mm	(in.)			
Reference according to dimensions (H x W x D) in mm (in.)	192	(7.6)	121	(4.8)	87	(3.4)	NSYTBP19128	–	–
	192	(7.6)	164	(6.5)	105	(4.1)	NSYTBP191610H	NSYAMP1916TB	–
	241	(9.5)	192	(7.6)	105	(4.1)	NSYTBP241910	NSYAMP2419TB	–
	241	(9.5)	192	(7.6)	105	(4.1)	NSYTBP241910T		–
	241	(9.5)	192	(7.6)	128	(5.0)	NSYTBP241912H		–
	291	(11.5)	241	(9.5)	168	(6.6)	NSYTBP292416H	NSYAMP2924TB	–
	341	(13.4)	291	(11.5)	128	(5.0)	NSYTBP342912	NSYAMP3429TB	–
	308	(12.1)	250	(9.8)	160	(6.3)	–	–	NSYPLM3025G
	430	(16.9)	330	(13.0)	200	(7.9)	–	–	NSYPLM43G
	530	(20.9)	430	(16.9)	200	(7.9)	–	–	NSYPLM54G
	647	(24.5)	436	(17.1)	250	(9.8)	–	–	NSYPLM64G
	747	(29.4)	536	(21.1)	300	(11.8)	–	–	NSYPLM75G
	847	(33.4)	636	(25.0)	300	(11.8)	–	–	NSYPLM86G
1056	(41.6)	852	(33.5)	350	(13.8)	–	–	NSYPLM108G	

## Accessories for Thalassa polyester industrial boxes and insulated enclosures

Description	Reference
2 x Hinges for cover HT 20 mm for TBS or TBP industrial boxes	NSYAEDH20TB
4 x External fixing lugs for TBS or TBP industrial boxes	NSYAEFTB
DIN 35x7, 5 rail for box 241 for TBS or TBP industrial boxes	NSYAMRD24357TB
DIN 35x7, 5 rail for box 341 for TBS or TBP industrial boxes	NSYAMRD34357TB
Valve for TBS or TBP industrial boxes	NSYCAG12LPH1
7035 WM pol PLM 847 mm H x 636 mm W x 300 mm D lock3p for wall mount polyester enclosures	NSYPLM86VG
Sliding support PLM75/86 for wall mount polyester enclosures	NSYDPLM300
Sliding support PLM108 for wall mount polyester enclosures	NSYDPLM350
7035 Polyester WM lugs for PLM3025 to PLM108 for wall mount polyester enclosures	NSYPFLMG
Inox WM lugs for PLM43 to 108 for wall mount polyester enclosures	NSYPFXPML

# ClimaSys™ ventilation and thermal management systems



## ClimaSys™ CV ventilation systems

Degree of protection: IP54. Color: RAL7035 light gray

Voltage (V)		115 AC		24 DC		115 V				24 V	48 DC
Fan flow rate (m³/h)	Free-flow rate with standard filter	38	79	58	80	165	300	560	850	300	79
	Flow rate with outlet grill(s)	27	65	39	57	–	–	–	–	–	59
		35	73	47	77	–	–	–	–	–	68
Reference	Fan with filter	NSYC VF38M115PF		NSYC VF38M24DPF		NSYC VF165M115PF	NSYC VF300M115PF	NSYC V560M115PF	NSYC VF850M115PF	NSYC VF300M24DPF	NSYC VF38M48DPF
	Outlet grill	NSYC AG92LPF	NSYC AG125LPF	NSYC AG92LPF	NSYC AG125LPF	–	–	–	–	–	NSYC AG125LPF

Note: For more detailed information on our products, see the Enclosures catalog on our website [www.schneider-electric.com/enclosures](http://www.schneider-electric.com/enclosures).



## ClimaSys CC thermostats

Type of control	Setting range	Reference
Mechanical control of a resistance heater or an alarm	0...+60 °C	NSYCCOTHC
	+32...+140 °F	NSYCCOTHCF
Mechanical control of a fan or an alarm	0...+60 °C	NSYCCOTHO
	+32...+140 °F	NSYCCOTHOF
Electronic thermostat	-40...+80 °C	NSYCCOTH120VID
Electronic hygrotherm	-40...+80 °C	NSYCCOHT120VID
Double thermostat	0...+60 °C	NSYCCOTHD
	+32...+140 °F	NSYCCOTHDF
Thermostat with inverse contact	+41...+140 °F	NSYCCOTHIF

## ClimaSys CR insulated resistance heaters, 2 poles

Power (W)	50	100	150	350–550		
Voltage (V)	110–250 V			120 V	230 V	
Reference	NSYCR50WU2C	NSYCR100WU2C	NSYCR150WU2C	NSYCRP1W120VTVC	NSYCRP1W230VTVC	

## ClimaSys CRS ultra thin resistance heaters

Power (W)	25		50	100	200
Voltage (V)	120 AC	240 AC	240 AC	240 AC	120 AC
Inrush current (A)	0.21	0.10	0.21	–	–
Height (mm)	130	130	200	280	400
Width (mm)	250	250	320	450	650
Depth (mm)	1.6	1.6	1.6	1.6	1.6
Reference	NSYCRS25W120V	NSYCRS25W240V	NSYCRS50W240V	NSYCRS100W240V	NSYCRS200W120V

## ClimaSys DT data loggers

Characteristics	DTH
Type of recorder	Temperature, humidity, and dew point recorder
Composition	1
Reference	NSYDTEF32TRH

Note: For more detailed information on our products, see the Enclosures catalog on our website [www.schneider-electric.com/enclosures](http://www.schneider-electric.com/enclosures).

# ClimaSys™ ventilation and thermal management systems



Characteristics		DTT
		<b>Temperature recorder</b>
Color		Translucid
Display Type		LCD display
Dimensions	Height	111 mm
	Width	39 mm
	Depth	26 mm
Operating temperature		-40 °C to 80 °C
Ingress protection rating		IP67 according to IEC 60529
Standard		EN 12830
Certification		CE
Fixing mode		Clip-on support
Connector type		USB
Data recording		32 K
Temperature	Setting	-40 °C to 80 °C
	Accuracy	±0.3 °C
	Resolution	0.03 °C
Humidity	Setting	–
	Accuracy	–
	Resolution	–
Battery	Type	Lithium CR2032 3 V
	Lifetime	Maximum 2 years
Composition		1

**Schneider Electric**

[www.se.com](http://www.se.com)

Schneider Electric USA, Inc.  
800 Federal Street  
Andover, MA 01810  
888-778-2733

© 2019 – 2022 Schneider Electric. All Rights Reserved. Schneider Electric, Square D, Altistart, Altivar, ClimaSys, Harmony, Magelis, Modicon, Phaseo, Spacial, TeSys, Thalassa, and Zelio are trademarks and the property of Schneider Electric SE, its subsidiaries and affiliated companies. All other trademarks are the property of their respective owners.

8800CT1801R08/22  
Replaces 8800CT1801R11/21