



Power Safe Air Circuit Breaker (PSL Series)
Power Defense Molded Case Circuit Breaker (PDC Series)
Molded Case Circuit Breaker (BZM Series)
Miniature Circuit Breaker (E6X Series)
Motor Control & Protection (D-Line Series)



Content

1.Power Safe Air Circuit Breaker (PSL Series)

Small, flexible and efficient



2.Power Defense Molded Case Circuit Breaker (PDC Series)

An intelligent protection



3.Molded Case Circuit Breaker (BZM Series)

Compact, simple and safe



4.Minature Circuit Breaker (E6X Series)

More complete, more value



5.Motor Control & Protection (D-Line Series)

Start easily, protect precisely





Page

4-15

16-36

37-46

47-49

50-61

Power Safe Air Circuit Breaker (PSL Series)

PSL system view



- | |
|--|
| 1 PSL circuit breaker
PSL5: 55kA
PSL6: 66kA
800~4000A, 3P/4P, drawout/fixed type |
| 2 Control terminal block
800~2000A: 62 pins
2500~4000A: 62 pins |
| 3 Auxiliary switch
None/4a4b/6a6b/4ON+4OFF/6ON+6OFF |
| 4 Phase barrier
Default assembled on 2500~4000A
optional for 800~2000A |

- | |
|--|
| 5 Undervoltage release
220VAD
No delay/1s/3s/5s delay |
| 6 Shunt trip / Spring release
220VAD |
| 7 Motor operator
220VAD |
| 8 Mechanical interlock
MIL2C/MIL31C/MIL33C |

- | |
|--------------------------------|
| 9 Door frame |
| 10 OFF position keylock |
| 11 Operation counter |
| 12 Trip unit |

Design Features

The trip units are of full range and versatile

- Various kinds of trip units are optional:
PVR21 - Basic function, Digital LED display and simplicity to use. PVR21V has the voltage measurement function integrated; PVR22 - more advanced function with LCD display, optional voltage (PVR22V) and power measurement.
- Current protection features:
A variety of protection function is offered including overload long-time delay protection, short-time delay, instantaneous, ground fault, neutral line N-pole protection, current unbalance protection, MCR circuit breaker making capacity protection;
- Optional remote reset function to remotely recover after fault tripping

Easy of installation

Zero flashover, and supports both forward and reverse power feeding.

Supports both horizontal or vertical connection.

Efficient arc extinguishing and breaking characteristics

Arcing chamber and contact system was designed with distinguished technology that can significantly improve the breaking capability of the breakers. It also optimizes the current sensing path and acting time that can greatly shorten the tripping time in case of large fault current.

High electrical lifetime and short circuit withstand ability

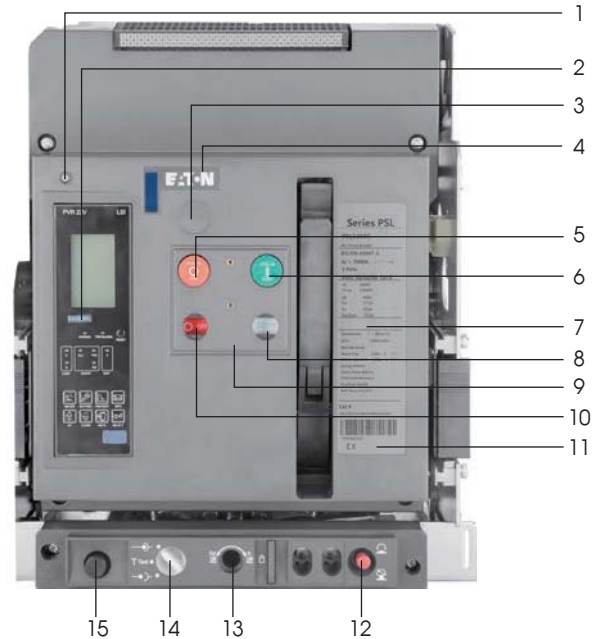
The breaker design adopts high strength DMC material, which has good insulation characteristics and mechanical strength. The double-contact structure improves the electric life of products; The optimized design of the mechanism realizes compensation to the contact pressure, and improves the product reliability and short circuit withstand ability.

More safety protection features

It has drawout type circuit breaker door interlocking, drawout type three-position interlocking device and off-position key lock, rear terminal protective cover, closing ready indicating device and other protection devices.

Structural Features

Introduction of Structure and Indications



1. Reset button
2. Nominal current sign
3. Off-position key lock (optional function)
4. Eaton logo
5. Disconnection button
6. Closing button
7. Counter (knockout under label)
8. Energy releasing and storing indicator
9. Closing ready "OK" indicator (optional function)
10. Opening and closing indicator
11. Front label
12. "CONNECT", "TEST" and "DISCONNECT" position locking and unlocking device
13. Rocker operating position
14. "CONNECT", "TEST" and "DISCONNECT" position indicator
15. Rocker and its storage position

Note: 12~15 for drawout type only

Power Safe Air Circuit Breaker (PSL Series)

Ordering code and part list

Ordering code and part list (print the sheet, tick your selection and provide to Eaton sales representatives)

P	S	L	6	2	0	3	F	E	N	N	B	V	N	S	R	R	N	N	6	N	Y	N	N	X
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

SN	Description	Specification and type code	Note
1-3	Series name	PSL	
4	Icu/Ics/Icw	☐ 5: Icu/Ics/Icw = 55kA ☐ 6: Icu/Ics/Icw = 66kA	
5-6	Rated current	☐ 08: 800A ☐ 10: 1000A ☐ 12: 1250A ☐ 16: 1600A ☐ 20: 2000A ☐ 25: 2500A ☐ 32: 3200A ☐ 40: 4000A	
7	Poles	☐ 3: 3 poles ☐ 4: 4 poles	
8	Mounting	☐ F: Fixed and Horizontal terminals ☐ E: Fixed and Vertical terminals ☐ D: Drawout and Horizontal terminals ☐ C: Drawout and Vertical terminals ☐ Y: Drawout and Horizontal terminals, with cell switch ☐ V: Drawout and Vertical terminals, with cell switch	
9	Language	☐ E: English	
10	Reserved	☐ Always use "N" in the code	
11	Ground fault	☐ N: Only LSI or Switch disconnect ☐ G: LSIG(Residual current) ☐ S: LSIG(Source grounding) ☐ Z: LSIG(Zero sequence)	
12	Trip unit	☐ N: None(Switch disconnecter) ☐ A: 380/400VAC,Digital LED ☐ B: 220/230VAC,Digital LED ☐ C: 220VDC,Digital LED ☐ D: 110VDC,Digital LED ☐ E: 24VDC,Digital LED ☐ F: 380/400VAC,Digital LCD ☐ G: 220/230VAC,Digital LCD ☐ H: 220VDC,Digital LCD ☐ I: 110VDC,Digital LCD ☐ J: 24VDC,Digital LCD	
13	Voltage measure	☐ N: None(Switch disconnecter) ☐ V: Current measure only ☐ U: Current and voltage measure	
14	Remote reset	☐ N: None or Switch disconnecter ☐ 2: 220VAD ☐ 3: 24VDC ☐ 4: 110VDC ☐ 5: 380/400VAC	
15	Shunt trip	☐ N: None ☐ B: 110VDC ☐ S: 220VAD ☐ D: 24VDC ☐ Q: 380/400VAC	
16	Motor operator	☐ M: None(Manual charging) ☐ R: 220VAD ☐ P: 380/400VAC	

Power Safe Air Circuit Breaker (PSL Series)

Ordering code and part list

Ordering code and part list (print the sheet, tick your selection and provide to Eaton sales representatives) (continued)

SN	Description	Specication and type code	Note
17	Spring and LCS	☐ N: No SR, No LCS ☐ A: 110VDC SR,No LCS* ☐ D: 110VDC SR,LCS wired external* ☐ C: 24VDC SR,No LCS* ☐ Q: 24VDC SR,LCS wired external* ☐ R: 220VAD SR,No LCS ☐ T: 220VAD SR,LCS wired external ☐ 4: 380/400VAC SR,No LCS* ☐ 6: 380/400VAC SR,LCS wired external*	
18	UVR (Undervoltage release)	☐ N: None ☐ D: 24VDC,no delay* ☐ B: 110VDC,no delay* ☐ S: 220VAD,no delay ☐ Q: 380/400VAC,no delay* ☐ E: 24VDC,delay 1s* ☐ A: 110VDC,delay 1s* ☐ C: 220VAD,delay 1s ☐ F: 380/400VAC,delay 1s* ☐ J: 24VDC,delay 3s* ☐ G: 110VDC,delay 3s* ☐ H: 220VAD,delay 3s ☐ K: 380/400VAC,delay 3s* ☐ V: 24VDC,delay 5s* ☐ L: 110VDC,delay 5s* ☐ M: 220VAD,delay 5s ☐ P: 380/400VAC,delay 5s*	
19	Door interlock	☐ N: None ☐ A: With door interlock(right) ☐ B: With door interlock(left)	
20	Auxiliary Switch	☐ N: None ☐ 4: 4 NO+ 4 NC (800-2000A only) ☐ 6: 6 NO+ 6 NC (800-2000A only) ☐ A: 4 Form C switchover (2500-4000A only) ☐ B: 6 Form C switchover (2500-4000A only)	800-2000A ACB can only support "NO+NC" type, 2500-4000A type can only support Form C switchover type
21	OFF position lock and counter	☐ N: No counter, No lock ☐ K: No counter, with lock ☐ A: With counter, no lock ☐ Y: With counter, with lock	
22	Overload tripping switch (OTS) & Door frame	☐ N: No OTS, no Door frame ☐ D: No OTS, with Door frame ☐ Y: with OTS, no Door frame ☐ W: With OTS and Door frame	
23	Padlocking cover	☐ N: None ☐ P: Plastic cover	
24	Reserved	☐ Always use "N" in the code	
25	Reserved	☐ Always use "X" in the code	

Attention for Selection

- 1) Ground fault function for 3P need to order external neutral sensor separately
- 2) Minimum two accessories of SR/ST/UVR and one connecting parts are required for onsite install or none
- 3) Remote reset and ground fault function can not be selected at same time for 3P, 2000A below (include 2000A)
- 4) Remote reset and source grounding or zero sequence fault function can not be selected at same time for 4P, 2000A below (include 2000A)
- 5) OTS function was not used for switch disconnecter

Power Safe Air Circuit Breaker (PSL Series)

Ordering code and part list

Accessory type	Article Number	Part type	Detail description
Inter-phase Barrier	90000019500011	PSL-IB203W	Inter-phase barrier, 3P set, 2000A frame size, Drawout
Inter-phase Barrier	90000019500012	PSL-IB204W	Inter-phase barrier, 4P set, 2000A frame size, Drawout
Inter-phase Barrier	90000019500013	PSL-IB403W	Inter-phase barrier, 3P set, 4000A frame size, Drawout
Inter-phase Barrier	90000019500014	PSL-IB404W	Inter-phase barrier, 4P set, 4000A frame size, Drawout
Inter-phase Barrier	90000019500067	PSL-IB203F	Inter-phase barrier, 3P set, 2000A frame size, Fixed
Inter-phase Barrier	90000019500068	PSL-IB204F	Inter-phase barrier, 4P set, 2000A frame size, Fixed
Inter-phase Barrier	90000019500069	PSL-IB403F	Inter-phase barrier, 3P set, 4000A frame size, Fixed
Inter-phase Barrier	90000019500070	PSL-IB404F	Inter-phase barrier, 4P set, 4000A frame size, Fixed
Spring release	90000019518422	PSL-SR110DC	Spring release, 110VDC
Spring release	90000019500025	PSL-SR220AD	Spring release, 220VAD
Spring release	90000019500026	PSL-SR24DC	Spring release, 24VDC
Spring release	90000019500027	PSL-SR380AC	Spring release, 380VAC
Shunt trip	90000019518424	PSL-ST110DC	Shunt trip, 110VDC
Shunt trip	90000019500029	PSL-ST220AD	Shunt trip, 220VAD
Shunt trip	90000019500030	PSL-ST24DC	Shunt trip, 24VDC
Shunt trip	90000019500031	PSL-ST380AC	Shunt trip, 380VAC
Under-voltage release	90000019518426	PSL-UVR110DC	Under-voltage release, 110VDC
Under-voltage release	90000019500033	PSL-UVR220AD	Under-voltage release, 220VAD
Under-voltage release	90000019500034	PSL-UVR24DC	Under-voltage release, 24VDC
Under-voltage release	90000019500035	PSL-UVR380AC	Under-voltage release, 380VAC
Door frame and gasket	90000019500041	PSL-DEG20-F	Door frame and gasket, 800-2000A, fixed type
Door frame and gasket	90000019500042	PSL-DEG20-W	Door frame and gasket, 800-2000A, drawout type
Door frame and gasket	90000019500043	PSL-DEG40-F	Door frame and gasket, 2500-4000A, fixed type
Door frame and gasket	90000019500044	PSL-DEG40-W	Door frame and gasket, 2500-4000A, drawout type
Lev in/out lever	90000019500045	PSL-LT	Lev in/out lever
Mechanical interlock	90000019500046	PSL-MIL2C-F	Mechanical interlock set, 1.5m cable, fixed type, 1 normal supply and 1 backup
Mechanical interlock	90000019500047	PSL-MIL31C-F	Mechanical interlock set, 1.5m cable, fixed type, 2 normal supply and 1 backup
Mechanical interlock	90000019500048	PSL-MIL33C-F	Mechanical interlock set, 1.5m cable, fixed type, 1 normal supply and 2 backup
Mechanical interlock	90000019500049	PSL-MIL2C-W	Mechanical interlock set, 1.5m cable, drawout type, 1 normal supply and 1 backup
Mechanical interlock	90000019500050	PSL-MIL31C-W	Mechanical interlock set, 1.5m cable, drawout type, 2 normal supply and 1 backup
Mechanical interlock	90000019500051	PSL-MIL33C-W	Mechanical interlock set, 1.5m cable, drawout type, 1 normal supply and 2 backup
External neutral sensor	90000019500052	PSL-CTN08	External neutral sensor, 800A
External neutral sensor	90000019500053	PSL-CTN16	External neutral sensor, 1000-1600A
External neutral sensor	90000019500054	PSL-CTN20	External neutral sensor, 2000A
External neutral sensor	90000019500055	PSL-CTN25	External neutral sensor, 2500A
External neutral sensor	90000019500056	PSL-CTN32	External neutral sensor, 3200A
External neutral sensor	90000019500057	PSL-CTN40	External neutral sensor, 4000A
Connecting parts	90000019518420	PSL-CPF-2000	Connecting parts fixed of SR&ST&UVR-2000
Connecting parts	90000019518421	PSL-CPF-4000	Connecting parts fixed of SR&ST&UVR-4000
Test Kit	90000019500065	PSL-ATE-1	ATE-1 ACB testing kit (AC230V)
Test Kit	90000019500066	PSL-ATE-2	ATE-2 ACB testing kit (Lithium battery built-in)

Power Safe Air Circuit Breaker (PSL Series)

Scope of Application

PSL series of air circuit breaker (referred to as circuit breaker in the following) can be applied to the power grid of 50Hz/60Hz, rated current of 800A ~ 4000A, rated insulation voltage of 1000V, rated operational voltage up to AC440V. It can protect circuit and equipment from overload, short-circuit, under-voltage, grounding fault and harm of other faults. It can also be offered as isolating switch is non-auto type (without trip unit). It can offer the selective protection with high accuracy and also improve the safety and reliability of the power supply.

Operating Environment

Ambient temperature

Applicable ambient temperature is -25°C ~ + 70°C.

If the ambient temperature is higher than +40°C, de-rating of the rated current is needed.

Humidity

When the ambient air temperature is +40°C, the relative humidity shall not be more than 50%. Higher relative humidity is allowed in lower temperature. for example, in case of +25°C, the relative humidity can be 90%. For condensation due to temperature change, dehumidication or corresponding measures should be taken.

Anti-corrosion Level

Salt mist: Severe Level 2

Pollution Level

Pollution level: Level 3

Installation Conditions

With the vertical gradient no more than 5°, the circuit breaker shall be installed under the environment condition without explosion danger, conductive dust or the possibility of corroding metal and damaging the insulation.

Installation Category

Installation category of the circuit breaker's main circuit, undervoltage tripping coil and power transformer's primary coil is IV; the installation category of the rest auxiliary circuit and control circuit is III.

Protection Class

IP30 and IP40 (installed in a cubicle and equipped with a protective door frame).

Utility Category

Class B.

Recommended busbar

Frame size (A)	Rated current In (A)	Copper busbar specifications	
	40 °C	Dimension	Number of busbars
2000	800	50mm×5mm	2
	1000	60mm×5mm	2
	1250	80mm×5mm	3
	1600	100mm×5mm	2
	2000	100mm×5mm	3
4000	2500	100mm×5mm	4
	3200, 4000	100mm×10mm	5

Note:

The table indicates the copper busbar specifications adopted when the circuit breaker is under the ambient temperature of 40 °C and in the open area. If the temperature is higher than 40 °C, more busbar should be used, or current de-rating should be applied.

Power Safe Air Circuit Breaker (PSL Series)

Accessories

Accessories Technical Data

Accessory name	Type of circuit breakers
Off-position key lock	Fixed type/drawout type
Door interlock	Drawout type
Auxiliary switch	Fixed type/drawout type
Latch Check Switch (LCS)	Fixed type/drawout type
Spring release	Fixed type/drawout type
Shunt trip	Fixed type/drawout type
Electric operating motor	Fixed type/drawout type
Undervoltage release	Fixed type/drawout type
Counter	Fixed type/drawout type
Door frame	Fixed type/drawout type
Phase barrier	Fixed type/drawout type
Mechanical interlocking	Fixed type/drawout type

Locks

Off-position key lock



Drawout three-position lock (standard conguration on the Cassette)

On the cassette, there's "CONNECT", "TEST" and "DISCONNECT" position status, which is indicated through an indicator.

The DISCONNECT, TEST, and CONNECT positions are reached by means of the levering mechanism. During the process, the circuit breaker will be locked respectively in these three positions, and unlocked only through the reset button (red).



Door interlock (Optional, on the cassette)

Installed on the left or right side of the cassette. When the drawout type circuit breaker is NOT in the DISCONNECT position, it can avoid opening of the panel door.



"DISCONNECT" position lock of the drawout type circuit breaker (on the cassette)

When the drawout type circuit breaker is in the DISCONNECT position, pull out the black lever at the cassette bottom to lock. Then the breaker can only be levered out and cannot be levered in to the "TEST" or "CONNECT " position.

Diameter of the padlock should be 40mm or less, equipped by user.



Indication contact

Auxiliary switch

- Rated current 6A
- Form of contacts:
 - 4 Form-C switchover
 - 6 Form-C switchover
 - 4NO+4NC
 - 6NO+6NC



Current	Type of contacts
800-2000A	4NO+4NC; 6NO+6NC
2500-4000A	4 Form-C; 6 Form-C

Remote operation

Spring release

- Key features
 - working voltage: 85% ~ 110% Us
 - Pulse driven



Rated control voltage(Us)	Breaker closing time(ms)	Instantaneous power (W/VA)	Working voltage range(V)
24VDC	100	135W	20.4~26.4
110VDC	100	400W	93.5~121
220V/230VAC	100	500VA/AC	187~253VAC
220VDC		500W/DC	187~242VDC
380/400VAC	100	620VA	323~440

Latch Check Switch

Latch check switch is the device to indicate whether the break is ready to be closed. It will only be activated after below conditions valid:

- ACB in OFF status
- Spring enough charged
- No open signal from shunt trip
- Under-voltage release in non-tripping condition
- All fault is reset in trip unit



Shunt trip

- Key features
 - working voltage: 70%~110% Us



Rated control voltage(Us)	Breaker closing time(ms)	Instantaneous power (W/VA)	Working voltage range(V)
24VDC	73	135W	16.8~26.4
110VDC	73	400W	77~121
220V/230VAC	73	500VA/AC	154~253VAC
220VDC	73	500W/DC	154~242VDC
380/400VAC		620VA	266~440

Power Safe Air Circuit Breaker (PSL Series)

Accessories

Electrical Operating Motor

working voltage: 85% ~ 110 of system voltage



Rated control voltage(Us)	Charging duration(s)	Inrush/rated current(A)	Operating power(W/VA)	Operation voltage Range(V)
220V/230VAC	3~5	3.5/1	220VA/AC	187~253VAC
220VDC			220W/DC	154~246VDC
380/400VAC	3~5	2.1/0.6	220VA	323~440

Undervoltage Release

- **Key features**
 - Started to trip breaker when voltage drops to 70% ~ 35%
 - The breaker can't be closed when voltage is below 35%
 - The breaker can be closed when voltage is 85% ~ 110% of rated operating voltage
 - Composed of 2 indiscerptible parts:
 - Instantaneous tripping coil
 - Time delay module
 - Time delay module
- Delay time can be adjusted by changing the coding switch. Setting values: no delay, 1s, 3s, 5s.



Rated control voltage(Us)	Breaker opening time(ms)	Inrush/ rated current(A)	Operating power(W/VA)	Closed voltage Range(V)	Opening voltage Range(V)
24VDC	73	mA)	3.5	20.4~26.4	8.4~16.8
110VDC	73	5.13/310	5.2	93.5~121	38.5~77
220V/230VAC	73	1.12/47	3.9VA/AC	187~253VAC	77~161VAC
220VDC		1.82/17	3.9W/DC	187~242VDC	77~154VDC
380/400VAC	73	1.2/13	5.2	323~440	133~280

Counter

Counter is used to record the number of the “close-open ” operation of the circuit breaker.



Door frame

To be used on the panel doors together with the breaker, to reach IP40 protection level.



Drawout type



Fixed type

Phase barrier

To be installed between different phase terminals to get reinforced insulation.





		PSL5...	PSL6...		
General					
Standards		IEC/EN 60947		IEC/EN 60947	
Rated Current (I _n)	at +40°C	800A, 1000A, 1250A, 1600A, 2000A, 2500A, 3200A, 4000A			
Ambient temperature	Storage	-25 - 70 °C		-25 - 70 °C	
	Operating (open)	-25 - 70 °C		-25 - 70 °C	
Utilization category		B		B	
Protection type		P30, IP40 with door sealing frame		P30, IP40 with door sealing frame	
Switching capacity					
Type of circuit breaker		800-2000A	2500-4000A	800-2000A	2500-4000A
N-pole rated current		100%I _n	100%I _n	100%I _n	100%I _n
Type of switching capacity		PSL5 ...	PSL5 ...	PSL6 ...	PSL6 ...
Rated impulse withstand voltage (U _{imp} , VAC)		12000	12000	12000	12000
Rated insulation voltage (U _i , VAC)		1000	1000	1000	1000
Rated operational voltage (U _e , VAC, 50/60Hz) ⁽¹⁾		440	440	440	440
Ultimate breaking capacity (I _{cu} , kA)		55	55	66	66
Rated service breaking capacity (I _{cs} , kA)		55	55	66	66
Rated short-time withstand current (I _{cw} , kA, 1s)		55	55	66	66
Rated short-circuit making capacity (I _{cm} , kA)		121	121	145	145
Breaking time		≤ 30ms	≤ 30ms	≤ 30ms	≤ 30ms
Closing time		≤ 70ms	≤ 70ms	≤ 70ms	≤ 70ms
Durability and installation characteristics					
Lifespan	Mechanical, without maintenance	10000	10000	10000	10000
	Mechanical, with maintenance	20000	20000	20000	20000
	Electrical, without maintenance	6000	6000	6000	6000
Dimensions (H × W × D, mm)	Fixed 3P	398x362x332	394x422 ×339	398x362 ×332	394x422x339
	Fixed 4P	398x457x332	394x537 ×339	398x457 ×332	394x537x339
	Withdrawable 3P	432x375x430	432x435 ×450	432x375 ×430	432x435x450
	Withdrawable 4P	432x470x430	432x550 ×450	432x470 ×430	432x550x450
Weight (kg)	Fixed 3P	41	60	41	60
	Fixed 4P	50	72	50	72
	Withdrawable 3P	71	103	71	103
	Withdrawable 4P	91	120	91	120

Power Safe Air Circuit Breaker (PSL Series)

Technical Data



Eaton P/N	PVR21	PVR21V	PVR22	PVR22V
Display	Digital LED	Digital LED	Digital LED	LCD
Trip unit type	Current	Current & Voltage	Current	Current & Voltage & Power
Protective options	LSI, LSIG	LSI, LSIG	LSI, LSIG	LSI, LSIG
Overload protection (L)				
Overload trip (I_t), $\times I_n$	OFF, $(0.4 \sim 1.0) \times I_n$	OFF, $(0.4 \sim 1.0) \times I_n$	OFF, $(0.4 \sim 1.0) \times I_n$	OFF, $(0.4 \sim 1.0) \times I_n$
Protection curve options	I^2t		I^2t : $T = 2.25t / N^2$ (factory default) $EI(G)$: $T = 1.25t / (N^2 - 1)$ $EI(M)$: $T = 1.3974t \times \ln(N^2 / (N^2 - 1.15))$ F : $T = 4.0625t / (N^4 - 1)$ $N = I / I_r$ I = Fault current I_r = Long-delay current T = Action time t = pickup time setting (C1 ~ C16)	
pickup time setting -- t	C1 ~ C11 (delay setting)		C1 ~ C16 (delay setting)	
Thermal memory	fixed 30min		10min, 20min, 30min, 45min, 1h, 2h, 3h, OFF	
Short-time delayed short-circuit protection (S)				
Short delayed pickup (I_{sd} , Inverse/flat time), $\times I_r$	OFF, $(1.5 \sim 15) \times I_r$			
Short delay time, flat characteristic curve (t_{sd})	0.1s, 0.2s, 0.3s, 0.4s		0.1 ~ 0.4s	
Non-delayed short-circuit protection (I)				
Non-delayed pickup (I_i)	OFF, $(1.0 \sim 20) \times I_n$			
Conventional tripping/non-tripping	$\leq 0.9I_i$, not trip $\geq 1.1I_i$, trip			
Breaking action time ($I > MCR$ setting)	$< 30ms$			
Optional ground fault protection (G)				
Ground/Earth pickup (I_g), $\times I_n$	OFF, $(0.2 \sim 1.0) \times I_n$			
Ground/Earth time (t_g)	0.1s, 0.2s, 0.3s, 0.4		0.1~1.0s	
Conventional tripping/non-tripping	$\leq 0.8I_g$, not trip $\geq 1.0I_g$, trip			
Neutral protection setting	50% I_n , 100% I_n , OFF		50% I_n , 100% I_n , 160% I_n , 200% I_n , OFF	

Trip unit Functions

Functional items		PVR21	PVR21V	PVR22	PVR22V
Display type	Digital LED and symbols display	√	√	—	—
	LCD panel symbols and graphics display	—	—	√	√
Protection functions	Overload long-time delay protection	√	√	√	√
	Overload thermal memory	√	√	√	√
	Overload pre-alarm	√	√	√	√
	Short circuit short-time delay protection	√	√	√	√
	Short-time delay thermal memory	√	√	√	√
	Short circuit instantaneous protection	√	√	√	√
	Grounding fault protection	√	√	√	√
	Ground alarm (LED indication)	—	—	√	√
	Neutral line protection	√	√	√	√
	Current unbalance protection	√	√	√	√
	MCR	√	√	√	√
	Undervoltage, overvoltage protection	—	—	—	√
	Voltage unbalance protection	—	—	—	√
	Phase sequence protection	—	—	—	√
	Under/Over frequency protection	—	—	—	√
Measuring function	Current	√	√	√	√
	Voltage	—	√	—	√
	Phase sequence	—	—	—	√
	Frequency	—	—	—	√
	Energy and power	—	—	—	√
Maintenance function	Fault status indication (LED)	√	√	√	√
	Fault event record(8 events) and query	√	√	√	√
	Historical peak current record	—	—	√	√
	Historical alarm event	—	—	√	√
	Self-diagnostic function	√	√	√	√
	Tripping simulation test	√	√	√	√
	Contact wear query	—	—	√	√
	Operating counter	—	—	√	√
	Clock function	—	—	√	√
Others	DC trip units (DC220V, DC110V)	▲	▲	▲	▲
	Remote reset of trip unit	▲	▲	▲	▲

“√” represents this function is available; “▲” represents optional functions for users, and “—” represents this function is not available

Factory default setting

Protection	Current	Time	Remarks
Overload long-time delay protection	1.0 I_n	60s	Thermal memory ON
Short circuit short-time delay protection	8 I_r	0.2s	Flat type of the curve
Instantaneous short circuit	10 I_n	-	-
Ground protection (if applicable)	0.5 I_n	0.1s	-
Current unbalance protection	OFF	-	Can be opened as needed

Power Defense Molded Case Circuit Breaker (PDC Series)

Product guide



Power Defense molded case circuit breaker portfolio

Frame PD-1



Current range
16—160 A

Maximum IEC voltage
690 Vac/250 Vdc

Certifications
CSA/CE/CCC

Interrupting capacity at 415 Vac (kAIC)
25, 36, 50, 70

Current limiting options

Trip unit options
T/M adj. adj.

- Through-cover accessories

Frame PD-2



Current range
125—250 A

Maximum IEC voltage
690 Vac/250 Vdc

Certifications
CSA/CE/CCC

Interrupting capacity at 415 Vac (kAIC)
25, 36, 50, 70

Current limiting options

Trip unit options
T/M adj. adj.
PXR 10
PXR 20
PXR 20D
PXR 25

- Through-cover accessories
- Available with 2 PXR communication relays
- 1 Relay with modbus RTU

Electronic protection
LSI, LSIG

Frame PD-3



Current range
250—630 A

Maximum IEC voltage
690 Vac/250 Vdc

Certifications
CSA/CE/CCC

Interrupting capacity at 415 Vac (kAIC)
25, 36, 50, 70

Current limiting options

Trip unit options
T/M adj. adj.
PXR 10
PXR 20
PXR 20D
PXR 25

- Through-cover accessories
- Available with 2 PXR communication relays
- Field-interchangeable trip units

Electronic protection
LSI, LSIG, ALSI, ALSIG

Frame PD-4



Current range
800—1000 A

Maximum IEC voltage
690 Vac/250 Vdc

Certifications
CSA/CE/CCC

Interrupting capacity at 415 Vac (kAIC)
36, 50, 70

Trip unit options
T/M adj. adj.
PXR 10
PXR 20
PXR 20D
PXR 25

- Through-cover accessories
- Available with 2 PXR communication relays
- Field-interchangeable trip units

Electronic protection
LSI, LSIG, ALSI, ALSIG

Power Defense Molded Case Circuit Breaker (PDC Series)

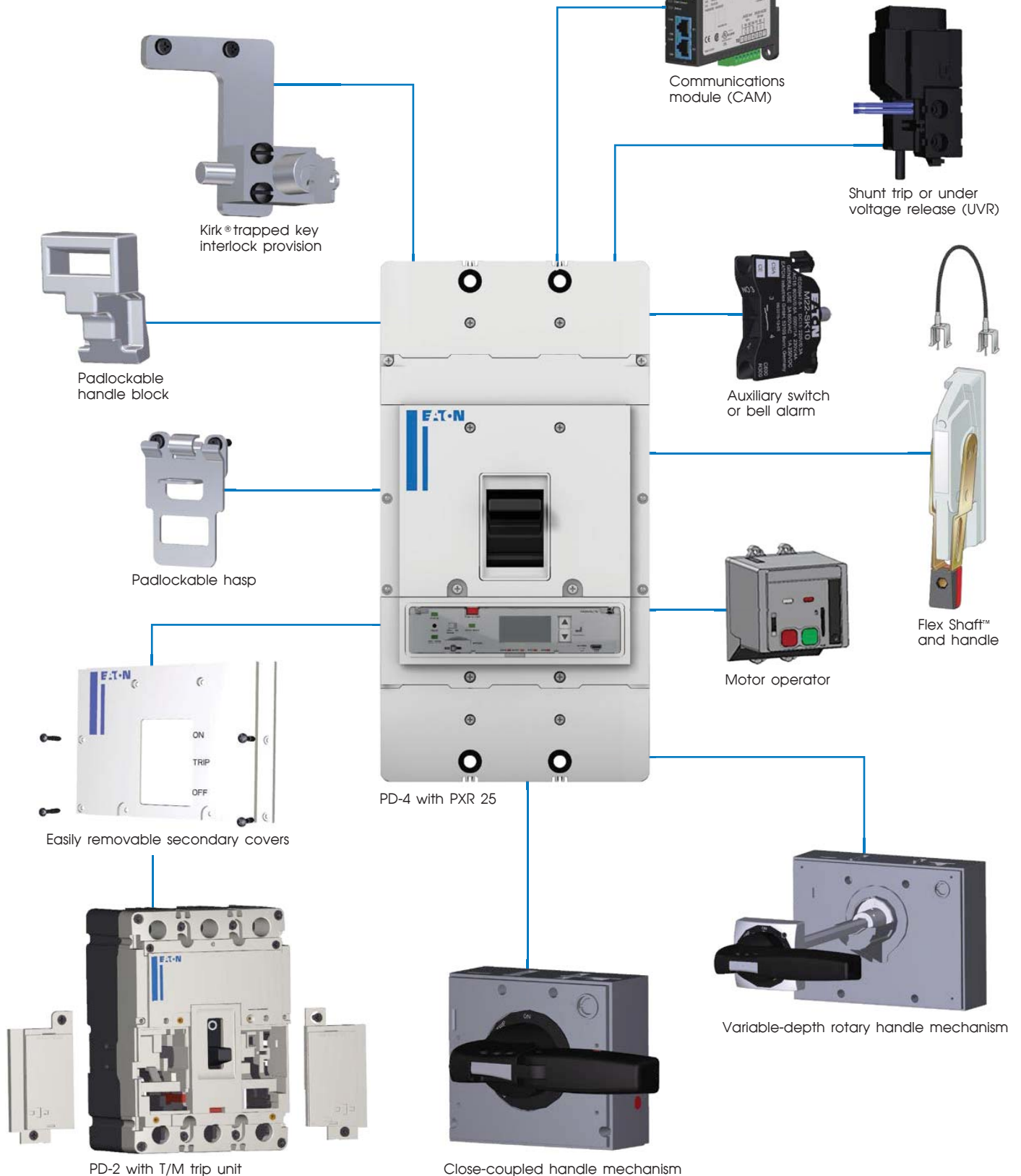
Accessories

Accessories

The Power Defense molded case circuit breakers feature a wide range of accessories to fit your application, including new, through-cover accessories designed for easy installation, fast uptime and simplified stocking.

For full details on accessory voltages, sizes and configurations, and additional accessories not shown, please see our new reference catalog at

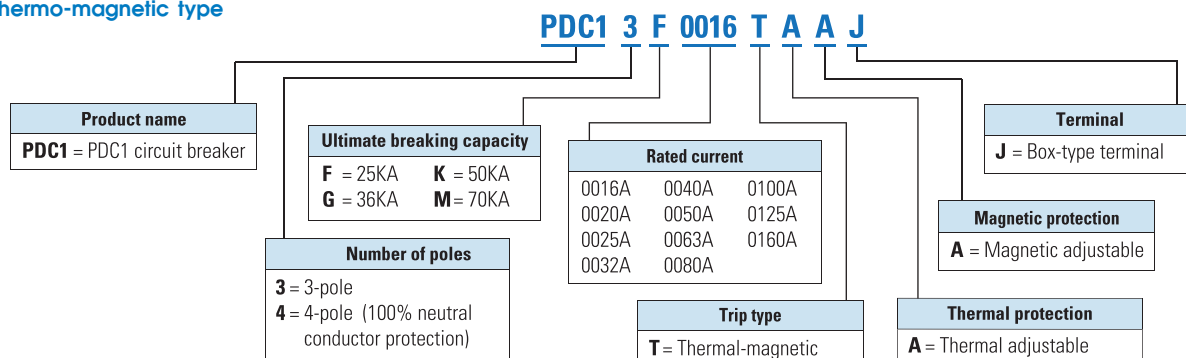
Eaton.com/powerdefense.



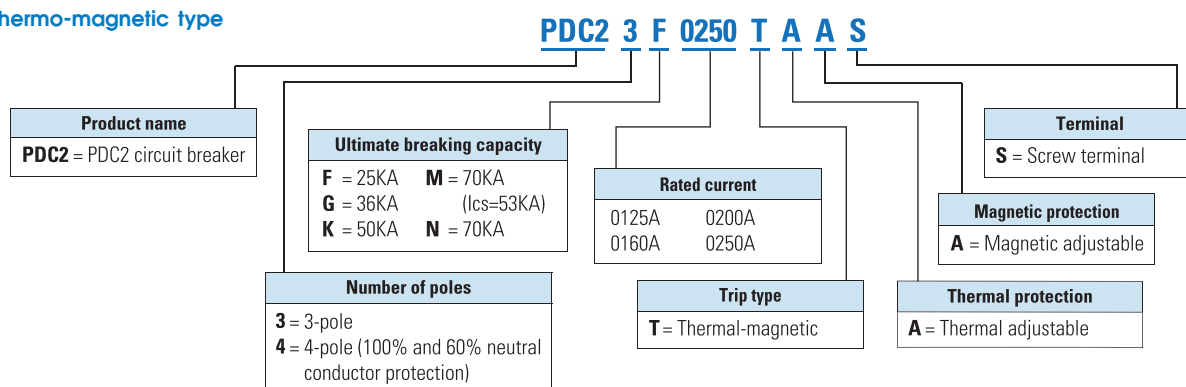
Power Defense Molded Case Circuit Breaker (PDC Series)

PDC Circuit Breaker selection

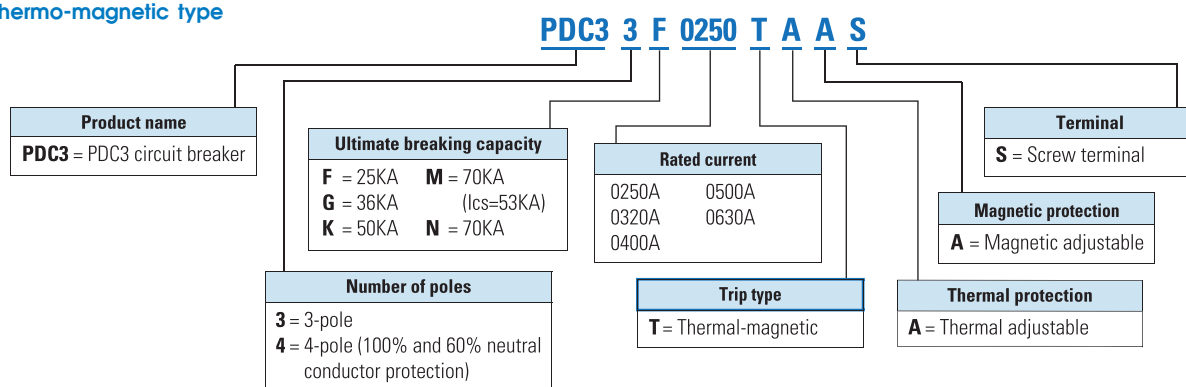
PDC1 thermo-magnetic type



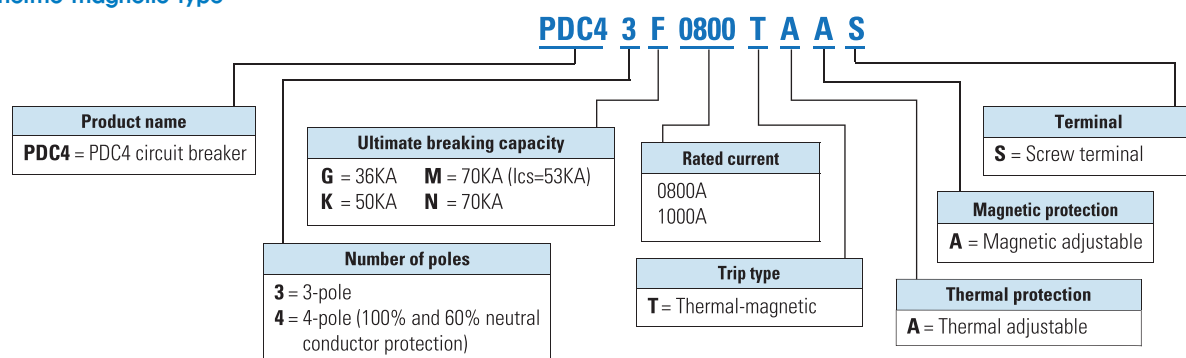
PDC2 thermo-magnetic type



PDC3 thermo-magnetic type



PDC4 thermo-magnetic type



Power Defense Molded Case Circuit Breaker (PDC Series)

Order list TMTU

Thermomagnetic releases, 3 pole

System and cable protection

Box terminal

Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC13F0016TAAJ	16	PDC110001
PDC13F0020TAAJ	20	PDC110002
PDC13F0025TAAJ	25	PDC110003
PDC13F0032TAAJ	32	PDC110004
PDC13F0040TAAJ	40	PDC110005
PDC13F0050TAAJ	50	PDC110006
PDC13F0063TAAJ	63	PDC110007
PDC13F0080TAAJ	80	PDC110008
PDC13F0100TAAJ	100	PDC110009
PDC13F0125TAAJ	125	PDC110010
PDC13F0160TAAJ	160	PDC110011
Maximum breaking capacity G:36kA @415V		
PDC13G0016TAAJ	16	PDC110012
PDC13G0020TAAJ	20	PDC110013
PDC13G0025TAAJ	25	PDC110014
PDC13G0032TAAJ	32	PDC110015
PDC13G0040TAAJ	40	PDC110016
PDC13G0050TAAJ	50	PDC110017
PDC13G0063TAAJ	63	PDC110018
PDC13G0080TAAJ	80	PDC110019
PDC13G0100TAAJ	100	PDC110020
PDC13G0125TAAJ	125	PDC110021
PDC13G0160TAAJ	160	PDC110022
Maximum breaking capacity K:50kA @415V		
PDC13K0016TAAJ	16	PDC110023
PDC13K0020TAAJ	20	PDC110024
PDC13K0025TAAJ	25	PDC110025
PDC13K0032TAAJ	32	PDC110026
PDC13K0040TAAJ	40	PDC110027
PDC13K0050TAAJ	50	PDC110028
PDC13K0063TAAJ	63	PDC110029
PDC13K0080TAAJ	80	PDC110030
PDC13K0100TAAJ	100	PDC110031
PDC13K0125TAAJ	125	PDC110032
PDC13K0160TAAJ	160	PDC110033
Maximum breaking capacity M:70kA @415V, ICS=50KA		
PDC13M0016TAAJ	16	PDC110034
PDC13M0020TAAJ	20	PDC110035
PDC13M0025TAAJ	25	PDC110036
PDC13M0032TAAJ	32	PDC110037
PDC13M0040TAAJ	40	PDC110038
PDC13M0050TAAJ	50	PDC110039
PDC13M0063TAAJ	63	PDC110040
PDC13M0080TAAJ	80	PDC110041
PDC13M0100TAAJ	100	PDC110042
PDC13M0125TAAJ	125	PDC110043
PDC13M0160TAAJ	160	PDC110044

Thermomagnetic releases, 3 pole

System and cable protection

Box terminal

Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC23F0125TAAS	125	PDC210001
PDC23F0160TAAS	160	PDC210002
PDC23F0200TAAS	200	PDC210003
PDC23F0250TAAS	250	PDC210004
Maximum breaking capacity G:36kA @415V		
PDC23G0125TAAS	125	PDC210005
PDC23G0160TAAS	160	PDC210006
PDC23G0200TAAS	200	PDC210007
PDC23G0250TAAS	250	PDC210008
Maximum breaking capacity K: 50kA @415V		
PDC23K0125TAAS	125	PDC210009
PDC23K0160TAAS	160	PDC210010
PDC23K0200TAAS	200	PDC210011
PDC23K0250TAAS	250	PDC210012
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC23M0125TAAS	125	PDC210013
PDC23M0160TAAS	160	PDC210014
PDC23M0200TAAS	200	PDC210015
PDC23M0250TAAS	250	PDC210016
Maximum breaking capacity N: 70kA @415V		
PDC23N0125TAAS	125	PDC210017
PDC23N0160TAAS	160	PDC210018
PDC23N0200TAAS	200	PDC210019
PDC23N0250TAAS	250	PDC210020

* For PDC with electronics trip units, please consult Eaton Sales Personnel for more details

Power Defense Molded Case Circuit Breaker (PDC Series)

Order list TMTU

Thermomagnetic releases, 3 pole

System and cable protection
Screw terminal

Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC33F0250TAAS	250	PDC310001
PDC33F0320TAAS	320	PDC310002
PDC33F0400TAAS	400	PDC310003
PDC33F0500TAAS	500	PDC310004
PDC33F0630TAAS	630	PDC310005
Maximum breaking capacity G:36kA @415V		
PDC33G0250TAAS	250	PDC310006
PDC33G0320TAAS	320	PDC310007
PDC33G0400TAAS	400	PDC310008
PDC33G0500TAAS	500	PDC310009
PDC33G0630TAAS	630	PDC310010
Maximum breaking capacity K: 50kA @415V		
PDC33K0250TAAS	250	PDC310011
PDC33K0320TAAS	320	PDC310012
PDC33K0400TAAS	400	PDC310013
PDC33K0500TAAS	500	PDC310014
PDC33K0630TAAS	630	PDC310015
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC33M0250TAAS	250	PDC310016
PDC33M0320TAAS	320	PDC310017
PDC33M0400TAAS	400	PDC310018
PDC33M0500TAAS	500	PDC310019
PDC33M0630TAAS	630	PDC310020
Maximum breaking capacity N: 70kA @415V		
PDC33N0250TAAS	250	PDC310021
PDC33N0320TAAS	320	PDC310022
PDC33N0400TAAS	400	PDC310023
PDC33N0500TAAS	500	PDC310024
PDC33N0630TAAS	630	PDC310025

* For PDC with electronics trip units, please consult Eaton Sales Personnel for more details

Thermomagnetic releases, 3 pole

System and cable protection
Screw terminal

Part no.	Rated current	Article no.
Maximum breaking capacity G:36kA @415V		
PDC43G0800TAAS	800	PDC410001
PDC43G1000TAAS	1000	PDC410002
Maximum breaking capacity K: 50kA @415V		
PDC43K0800TAAS	800	PDC410003
PDC43K1000TAAS	1000	PDC410004
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC43M0800TAAS	800	PDC410005
PDC43M1000TAAS	1000	PDC410006
Maximum breaking capacity N: 70kA @415V		
PDC43N0800TAAS	800	PDC410007
PDC43N1000TAAS	1000	PDC410008

Power Defense Molded Case Circuit Breaker (PDC Series)

Order list TMTU

Thermomagnetic releases, 4 pole

System and cable protection

Box Terminal

Neutral 100% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC14F0016TAAJ	16	PDC110045
PDC14F0020TAAJ	20	PDC110046
PDC14F0025TAAJ	25	PDC110047
PDC14F0032TAAJ	32	PDC110048
PDC14F0040TAAJ	40	PDC110049
PDC14F0050TAAJ	50	PDC110050
PDC14F0063TAAJ	63	PDC110051
PDC14F0080TAAJ	80	PDC110052
PDC14F0100TAAJ	100	PDC110053
PDC14F0125TAAJ	125	PDC110054
PDC14F0160TAAJ	160	PDC110055
Maximum breaking capacity G:36kA @415V		
PDC14G0016TAAJ	16	PDC110056
PDC14G0020TAAJ	20	PDC110057
PDC14G0025TAAJ	25	PDC110058
PDC14G0032TAAJ	32	PDC110059
PDC14G0040TAAJ	40	PDC110060
PDC14G0050TAAJ	50	PDC110061
PDC14G0063TAAJ	63	PDC110062
PDC14G0080TAAJ	80	PDC110063
PDC14G0100TAAJ	100	PDC110064
PDC14G0125TAAJ	125	PDC110065
PDC14G0160TAAJ	160	PDC110066
Maximum breaking capacity K:50kA @415V		
PDC14K0016TAAJ	16	PDC110067
PDC14K0020TAAJ	20	PDC110068
PDC14K0025TAAJ	25	PDC110069
PDC14K0032TAAJ	32	PDC110070
PDC14K0040TAAJ	40	PDC110071
PDC14K0050TAAJ	50	PDC110072
PDC14K0063TAAJ	63	PDC110073
PDC14K0080TAAJ	80	PDC110074
PDC14K0100TAAJ	100	PDC110075
PDC14K0125TAAJ	125	PDC110076
PDC14K0160TAAJ	160	PDC110077
Maximum breaking capacity M:70kA @415V, ICS=50KA		
PDC14M0016TAAJ	16	PDC110078
PDC14M0020TAAJ	20	PDC110079
PDC14M0025TAAJ	25	PDC110080
PDC14M0032TAAJ	32	PDC110081
PDC14M0040TAAJ	40	PDC110082
PDC14M0050TAAJ	50	PDC110083
PDC14M0063TAAJ	63	PDC110084
PDC14M0080TAAJ	80	PDC110085
PDC14M0100TAAJ	100	PDC110086
PDC14M0125TAAJ	125	PDC110087
PDC14M0160TAAJ	160	PDC110088

* For PDC with electronics trip units, please consult Eaton Sales Personnel for more details

Thermomagnetic releases, 4 pole

System and cable protection

Screw terminal

Neutral 100% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC24F0125TAAS	125	PDC210021
PDC24F0160TAAS	160	PDC210022
PDC24F0200TAAS	200	PDC210023
PDC24F0250TAAS	250	PDC210024
Maximum breaking capacity G:36kA @415V		
PDC24G0125TAAS	125	PDC210025
PDC24G0160TAAS	160	PDC210026
PDC24G0200TAAS	200	PDC210027
PDC24G0250TAAS	250	PDC210028
Maximum breaking capacity K: 50kA @415V		
PDC24K0125TAAS	125	PDC210029
PDC24K0160TAAS	160	PDC210030
PDC24K0200TAAS	200	PDC210031
PDC24K0250TAAS	250	PDC210032
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC24M0125TAAS	125	PDC210033
PDC24M0160TAAS	160	PDC210034
PDC24M0200TAAS	200	PDC210035
PDC24M0250TAAS	250	PDC210036
Maximum breaking capacity N: 70kA @415V		
PDC24N0125TAAS	125	PDC210037
PDC24N0160TAAS	160	PDC210038
PDC24N0200TAAS	200	PDC210039
PDC24N0250TAAS	250	PDC210040

Power Defense Molded Case Circuit Breaker (PDC Series)

Order list TMTU

Thermomagnetic releases, 4 pole

System and cable protection
Screw terminal

Neutral 60% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC26F0125TAAS	125	PDC210041
PDC26F0160TAAS	160	PDC210042
PDC26F0200TAAS	200	PDC210043
PDC26F0250TAAS	250	PDC210044
Maximum breaking capacity G:36kA @415V		
PDC26G0125TAAS	125	PDC210045
PDC26G0160TAAS	160	PDC210046
PDC26G0200TAAS	200	PDC210047
PDC26G0250TAAS	250	PDC210048
Maximum breaking capacity K: 50kA @415V		
PDC26K0125TAAS	125	PDC210049
PDC26K0160TAAS	160	PDC210050
PDC26K0200TAAS	200	PDC210051
PDC26K0250TAAS	250	PDC210052
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC26M0125TAAS	125	PDC210053
PDC26M0160TAAS	160	PDC210054
PDC26M0200TAAS	200	PDC210055
PDC26M0250TAAS	250	PDC210056
Maximum breaking capacity N: 70kA @415V		
PDC26N0125TAAS	125	PDC210057
PDC26N0160TAAS	160	PDC210058
PDC26N0200TAAS	200	PDC210059
PDC26N0250TAAS	250	PDC210060

* For PDC with electronics trip units, please consult Eaton Sales Personnel for more details

Thermomagnetic releases, 3 pole

System and cable protection
Screw terminal

Neutral 100% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC34F0250TAAS	250	PDC310026
PDC34F0320TAAS	320	PDC310027
PDC34F0400TAAS	400	PDC310028
PDC34F0500TAAS	500	PDC310029
PDC34F0630TAAS	630	PDC310030
Maximum breaking capacity G:36kA @415V		
PDC34G0250TAAS	250	PDC310031
PDC34G0320TAAS	320	PDC310032
PDC34G0400TAAS	400	PDC310033
PDC34G0500TAAS	500	PDC310034
PDC34G0630TAAS	630	PDC310035
Maximum breaking capacity K: 50kA @415V		
PDC34K0250TAAS	250	PDC310036
PDC34K0320TAAS	320	PDC310037
PDC34K0400TAAS	400	PDC310038
PDC34K0500TAAS	500	PDC310039
PDC34K0630TAAS	630	PDC310040
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC34M0250TAAS	250	PDC310041
PDC34M0320TAAS	320	PDC310042
PDC34M0400TAAS	400	PDC310043
PDC34M0500TAAS	500	PDC310044
PDC34M0630TAAS	630	PDC310045
Maximum breaking capacity N: 70kA @415V		
PDC34N0250TAAS	250	PDC310046
PDC34N0320TAAS	320	PDC310047
PDC34N0400TAAS	400	PDC310048
PDC34N0500TAAS	500	PDC310049
PDC34N0630TAAS	630	PDC310050

Power Defense Molded Case Circuit Breaker (PDC Series)

Order list TMTU

Thermomagnetic releases, 4 pole

System and cable protection
Screw terminal

Neutral 60% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity F:25kA @415V		
PDC36F0250TAAS	250	PDC310051
PDC36F0320TAAS	320	PDC310052
PDC36F0400TAAS	400	PDC310053
PDC36F0500TAAS	500	PDC310054
PDC36F0630TAAS	630	PDC310055
Maximum breaking capacity G:36kA @415V		
PDC36G0250TAAS	250	PDC310056
PDC36G0320TAAS	320	PDC310057
PDC36G0400TAAS	400	PDC310058
PDC36G0500TAAS	500	PDC310059
PDC36G0630TAAS	630	PDC310060
Maximum breaking capacity K: 50kA @415V		
PDC36K0250TAAS	250	PDC310061
PDC36K0320TAAS	320	PDC310062
PDC36K0400TAAS	400	PDC310063
PDC36K0500TAAS	500	PDC310064
PDC36K0630TAAS	630	PDC310065
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC36M0250TAAS	250	PDC310066
PDC36M0320TAAS	320	PDC310067
PDC36M0400TAAS	400	PDC310068
PDC36M0500TAAS	500	PDC310069
PDC36M0630TAAS	630	PDC310070
Maximum breaking capacity N: 70kA @415V		
PDC36N0250TAAS	250	PDC310071
PDC36N0320TAAS	320	PDC310072
PDC36N0400TAAS	400	PDC310073
PDC36N0500TAAS	500	PDC310074
PDC36N0630TAAS	630	PDC310075

* For PDC with electronics trip units, please consult Eaton Sales Personnel for more details

Thermomagnetic releases, 4 pole

System and cable protection
Screw terminal

Neutral 100% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity I G:36kA @415V		
PDC44G0800TAAS	800	PDC410009
PDC44G1000TAAS	1000	PDC410010
Maximum breaking capacity I K: 50kA @415V		
PDC44K0800TAAS	800	PDC410011
PDC44K1000TAAS	1000	PDC410012
Maximum breaking capacity I M: 70kA @415V, Ics=53KA		
PDC44M0800TAAS	800	PDC410013
PDC44M1000TAAS	1000	PDC410014
Maximum breaking capacity I N: 70kA @415V		
PDC44N0800TAAS	800	PDC410015
PDC44N1000TAAS	1000	PDC410016

Thermomagnetic releases, 4 pole

System and cable protection
Screw terminal

Neutral 60% protection		
Part no.	Rated current	Article no.
Maximum breaking capacity G:36kA @415V		
PDC46G0800TAAS	800	PDC410017
PDC46G1000TAAS	1000	PDC410018
Maximum breaking capacity K: 50kA @415V		
PDC46K0800TAAS	800	PDC410019
PDC46K1000TAAS	1000	PDC410020
Maximum breaking capacity M: 70kA @415V, Ics=53KA		
PDC46M0800TAAS	800	PDC410021
PDC46M1000TAAS	1000	PDC410022
Maximum breaking capacity N: 70kA @415V		
PDC46N0800TAAS	800	PDC410023
PDC46N1000TAAS	1000	PDC410024

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Aux/Alarm (not applicable for PD2 PXR)

Part no.	Frame	Specication	Terminal type	Art no.
PDGXXA	1,2,3,4	1 NO	Screw Terminal	185150
PDGXAA	1,2,3,4	1NO	Pigtail 0.75m	197146
PDGXDA	1,2,3,4	1 NO	Pigtail 3m	197149
PDGXXB	1,2,3,4	1 NC	Screw Terminal	185149
PDGXAB	1,2,3,4	1 NC	Pigtail 0.75m	197147
PDGXDB	1,2,3,4	1 NC	Pigtail 3m	197150
PDGXAC	1,2,3,4	1NC, 1NO	Pigtail 0.75m	197148
PDGXDC	1,2,3,4	1NC, 1NO	Pigtail 3m	197151
Bell alarm				
PDG2XALMBC	2	1NC, 1NO	pigtail 0.75m	PDC710009
PDG2XALMEC	2	1NC, 1NO	pigtail 3m	PDC710010

Undervoltage Release

Part no.	Frame	Voltage	Terminal type	Art no.
PDG2XUV600ACV	2	600Vac, 50/60Hz	Screwtype	PDC710011
PDG3XUV600ACV	3	600Vac, 50/60Hz	Screwtype	PDC710012
PDG4XUV600ACV	4	600Vac, 50/60Hz	Screwtype	PDC710013
PDG2XUV600ACU	2	600Vac, 50/60Hz	Pigtail 0.75m	PDC710014
PDG3XUV600ACU	3	600Vac, 50/60Hz	Pigtail 0.75m	PDC710015
PDG4XUV600ACU	4	600Vac, 50/60Hz	Pigtail 0.75m	PDC710016
PDG2XUV600ACW	2	600Vac, 50/60Hz	Pigtail 3m	PDC710017
PDG3XUV600ACW	3	600Vac, 50/60Hz	Pigtail 3m	PDC710018
PDG4XUV600ACW	4	600Vac, 50/60Hz	Pigtail 3m	PDC710019
PDC1XUV525ACV	1	480-525Vac, 50/60Hz	Screwtype	PDC710020
PDG2XUV525ACV	2	480-525Vac, 50/60Hz	Screwtype	PDC710021
PDG3XUV525ACV	3	480-525Vac, 50/60Hz	Screwtype	PDC710022
PDG4XUV525ACV	4	480-525Vac, 50/60Hz	Screwtype	PDC710023
PDC1XUV525ACU	1	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710024
PDG2XUV525ACU	2	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710025
PDG3XUV525ACU	3	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710026
PDG4XUV525ACU	4	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710027
PDC1XUV525ACW	1	480-525Vac, 50/60Hz	Pigtail 3m	PDC710028
PDG2XUV525ACW	2	480-525Vac, 50/60Hz	Pigtail 3m	PDC710029
PDG3XUV525ACW	3	480-525Vac, 50/60Hz	Pigtail 3m	PDC710030
PDG4XUV525ACW	4	480-525Vac, 50/60Hz	Pigtail 3m	PDC710031
PDC1XUV440ACV	1	380-440Vac, 50/60Hz	Screwtype	PDC710032
PDG2XUV440ACV	2	380-440Vac, 50/60Hz	Screwtype	PDC710033
PDG3XUV440ACV	3	380-440Vac, 50/60Hz	Screwtype	PDC710034
PDG4XUV440ACV	4	380-440Vac, 50/60Hz	Screwtype	PDC710035
PDC1XUV440ACU	1	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710036
PDG2XUV440ACU	2	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710037
PDG2\3XUV440ACU	3	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710038
PDG4XUV440ACU	4	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710039
PDC1XUV440ACW	1	380-440Vac, 50/60Hz	Pigtail 3m	PDC710040
PDG2XUV440ACW	2	380-440Vac, 50/60Hz	Pigtail 3m	PDC710041
PDG3XUV440ACW	3	380-440Vac, 50/60Hz	Pigtail 3m	PDC710042
PDG4XUV440ACW	4	380-440Vac, 50/60Hz	Pigtail 3m	PDC710043
PDC1XUV240ACV	1	208-240Vac, 50/60Hz	Screwtype	PDC710044
PDG2XUV240ACV	2	208-240Vac, 50/60Hz	Screwtype	PDC710045
PDG3XUV240ACV	3	208-240Vac, 50/60Hz	Screwtype	PDC710046
PDG4XUV240ACV	4	208-240Vac, 50/60Hz	Screwtype	PDC710047
PDC1XUV240ACU	1	208-240Vac, 50/60Hz	Pigtail 0.75m	PDC710048
PDG2XUV240ACU	2	208-240Vac, 50/60Hz	Pigtail 0.75m	PDC710049

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Undervoltage Release

Part no.	Frame	Voltage	Terminal type	Art no.
PDG3XUV240ACU	3	208-240Vac, 50/60Hz	Pigtail 0.75m	PDC710050
PDG4XUV240ACU	4	208-240Vac, 50/60Hz	Pigtail 0.75m	PDC710051
PDC1XUV240ACW	1	208-240Vac, 50/60Hz	Pigtail 3m	PDC710052
PDG2XUV240ACW	2	208-240Vac, 50/60Hz	Pigtail 3m	PDC710053
PDG3XUV240ACW	3	208-240Vac, 50/60Hz	Pigtail 3m	PDC710054
PDG4XUV240ACW	4	208-240Vac, 50/60Hz	Pigtail 3m	PDC710055
PDC1XUV130ACV	1	110-130Vac, 50/60Hz	Screwtype	PDC710056
PDG2XUV130ACV	2	110-130Vac, 50/60Hz	Screwtype	PDC710057
PDG3XUV130ACV	3	110-130Vac, 50/60Hz	Screwtype	PDC710058
PDG4XUV130ACV	4	110-130Vac, 50/60Hz	Screwtype	PDC710059
PDC1XUV130ACU	1	110-130Vac, 50/60Hz	Pigtail 0.75m	PDC710060
PDG2XUV130ACU	2	110-130Vac, 50/60Hz	Pigtail 0.75m	PDC710061
PDG3XUV130ACU	3	110-130Vac, 50/60Hz	Pigtail 0.75m	PDC710062
PDG4XUV130ACU	4	110-130Vac, 50/60Hz	Pigtail 0.75m	PDC710063
PDC1XUV130ACW	1	110-130Vac, 50/60Hz	Pigtail 3m	PDC710064
PDG2XUV130ACW	2	110-130Vac, 50/60Hz	Pigtail 3m	PDC710065
PDG3XUV130ACW	3	110-130Vac, 50/60Hz	Pigtail 3m	PDC710066
PDG4XUV130ACW	4	110-130Vac, 50/60Hz	Pigtail 3m	PDC710067
PDC1XUV24ACV	1	24Vac, 50/60Hz	Screwtype	PDC710068
PDG2XUV24ACV	2	24Vac, 50/60Hz	Screwtype	PDC710069
PDG3XUV24ACV	3	24Vac, 50/60Hz	Screwtype	PDC710070
PDG4XUV24ACV	4	24Vac, 50/60Hz	Screwtype	PDC710071
PDC1XUV24ACU	1	24Vac, 50/60Hz	Pigtail 0.75m	PDC710072
PDG2XUV24ACU	2	24Vac, 50/60Hz	Pigtail 0.75m	PDC710073
PDG3XUV24ACU	3	24Vac, 50/60Hz	Pigtail 0.75m	PDC710074
PDG4XUV24ACU	4	24Vac, 50/60Hz	Pigtail 0.75m	PDC710075
PDC1XUV24ACW	1	24Vac, 50/60Hz	Pigtail 3m	PDC710076
PDG2XUV24ACW	2	24Vac, 50/60Hz	Pigtail 3m	PDC710077
PDG3XUV24ACW	3	24Vac, 50/60Hz	Pigtail 3m	PDC710078
PDG4XUV24ACW	4	24Vac, 50/60Hz	Pigtail 3m	PDC710079
PDC1XUV250DCV	1	250Vdc	Screwtype	PDC710080
PDG2XUV250DCV	2	250Vdc	Screwtype	PDC710081
PDG3XUV250DCV	3	250Vdc	Screwtype	PDC710082
PDG4XUV250DCV	4	250Vdc	Screwtype	PDC710083
PDC1XUV250DCU	1	250Vdc	Pigtail 0.75m	PDC710084
PDG2XUV250DCU	2	250Vdc	Pigtail 0.75m	PDC710085
PDG3XUV250DCU	3	250Vdc	Pigtail 0.75m	PDC710086
PDG4XUV250DCU	4	250Vdc	Pigtail 0.75m	PDC710087
PDC1XUV250DCW	1	250Vdc	Pigtail 3m	PDC710088
PDG2XUV250DCW	2	250Vdc	Pigtail 3m	PDC710089
PDG3XUV250DCW	3	250Vdc	Pigtail 3m	PDC710090
PDG4XUV250DCW	4	250Vdc	Pigtail 3m	PDC710091
PDC1XUV125DCV	1	125Vdc	Screwtype	PDC710092
PDG2XUV125DCV	2	125Vdc	Screwtype	PDC710093
PDG3XUV125DCV	3	125Vdc	Screwtype	PDC710094
PDG4XUV125DCV	4	125Vdc	Screwtype	PDC710095
PDC1XUV125DCU	1	125Vdc	Pigtail 0.75m	PDC710096
PDG2XUV125DCU	2	125Vdc	Pigtail 0.75m	PDC710097
PDG3XUV125DCU	3	125Vdc	Pigtail 0.75m	PDC710098
PDG4XUV125DCU	4	125Vdc	Pigtail 0.75m	PDC710099
PDC1XUV125DCW	1	125Vdc	Pigtail 3m	PDC710100
PDG2XUV125DCW	2	125Vdc	Pigtail 3m	PDC710101
PDG3XUV125DCW	3	125Vdc	Pigtail 3m	PDC710102
PDG4XUV125DCW	4	125Vdc	Pigtail 3m	PDC710103

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Undervoltage Release

Part no.	Frame	Voltage	Terminal type	Art no.
PDC1XUV60DCV	1	60Vdc	Screwtype	PDC710104
PDG2XUV60DCV	2	60Vdc	Screwtype	PDC710105
PDG3XUV60DCV	3	60Vdc	Screwtype	PDC710106
PDG4XUV60DCV	4	60Vdc	Screwtype	PDC710107
PDC1XUV60DCU	1	60Vdc	Pigtail 0.75m	PDC710108
PDG2XUV60DCU	2	60Vdc	Pigtail 0.75m	PDC710109
PDG3XUV60DCU	3	60Vdc	Pigtail 0.75m	PDC710110
PDG4XUV60DCU	4	60Vdc	Pigtail 0.75m	PDC710111
PDC1XUV60DCW	1	60Vdc	Pigtail 3m	PDC710112
PDG2XUV60DCW	2	60Vdc	Pigtail 3m	PDC710113
PDG3XUV60DCW	3	60Vdc	Pigtail 3m	PDC710114
PDG4XUV60DCW	4	60Vdc	Pigtail 3m	PDC710115
PDC1XUV48DCV	1	48Vdc	Screwtype	PDC710116
PDG2XUV48DCV	2	48Vdc	Screwtype	PDC710117
PDG3XUV48DCV	3	48Vdc	Screwtype	PDC710118
PDG4XUV48DCV	4	48Vdc	Screwtype	PDC710119
PDC1XUV48DCU	1	48Vdc	Pigtail 0.75m	PDC710120
PDG2XUV48DCU	2	48Vdc	Pigtail 0.75m	PDC710121
PDG3XUV48DCU	3	48Vdc	Pigtail 0.75m	PDC710122
PDG4XUV48DCU	4	48Vdc	Pigtail 0.75m	PDC710123
PDC1XUV48DCW	1	48Vdc	Pigtail 3m	PDC710124
PDG2XUV48DCW	2	48Vdc	Pigtail 3m	PDC710125
PDG3XUV48DCW	3	48Vdc	Pigtail 3m	PDC710126
PDG4XUV48DCW	4	48Vdc	Pigtail 3m	PDC710127
PDC1XUV24DCV	1	24Vdc	Screwtype	PDC710128
PDG2XUV24DCV	2	24Vdc	Screwtype	PDC710129
PDG3XUV24DCV	3	24Vdc	Screwtype	PDC710130
PDG4XUV24DCV	4	24Vdc	Screwtype	PDC710131
PDC1XUV24DCU	1	24Vdc	Pigtail 0.75m	PDC710132
PDG2XUV24DCU	2	24Vdc	Pigtail 0.75m	PDC710133
PDG3XUV24DCU	3	24Vdc	Pigtail 0.75m	PDC710134
PDG4XUV24DCU	4	24Vdc	Pigtail 0.75m	PDC710135
PDC1XUV24DCW	1	24Vdc	Pigtail 3m	PDC710136
PDG2XUV24DCW	2	24Vdc	Pigtail 3m	PDC710137
PDG3XUV24DCW	3	24Vdc	Pigtail 3m	PDC710138
PDG4XUV24DCW	4	24Vdc	Pigtail 3m	PDC710139
PDC1XUV12DCV	1	12Vdc	Screwtype	PDC710140
PDG2XUV12DCV	2	12Vdc	Screwtype	PDC710141
PDG3XUV12DCV	3	12Vdc	Screwtype	PDC710142
PDG4XUV12DCV	4	12Vdc	Screwtype	PDC710143
PDC1XUV12DCU	1	12Vdc	Pigtail 0.75m	PDC710144
PDG2XUV12DCU	2	12Vdc	Pigtail 0.75m	PDC710145
PDG3XUV12DCU	3	12Vdc	Pigtail 0.75m	PDC710146
PDG4XUV12DCU	4	12Vdc	Pigtail 0.75m	PDC710147
PDC1XUV12DCW	1	12Vdc	Pigtail 3m	PDC710148
PDG2XUV12DCW	2	12Vdc	Pigtail 3m	PDC710149
PDG3XUV12DCW	3	12Vdc	Pigtail 3m	PDC710150
PDG4XUV12DCW	4	12Vdc	Pigtail 3m	PDC710151

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Shunt Release

Part no.	Frame	Voltage	Terminal type	Art no.
PDG2XST600ACT	2	600Vac, 50/60Hz	Screwtype	PDC710152
PDG3XST600ACT	3	600Vac, 50/60Hz	Screwtype	PDC710153
PDG4XST600ACT	4	600Vac, 50/60Hz	Screwtype	PDC710154
PDG2XST600ACS	2	600Vac, 50/60Hz	Pigtail 0.75m	PDC710155
PDG3XST600ACS	3	600Vac, 50/60Hz	Pigtail 0.75m	PDC710156
PDG4XST600ACS	4	600Vac, 50/60Hz	Pigtail 0.75m	PDC710157
PDG2XST600ACR	2	600Vac, 50/60Hz	Pigtail 3m	PDC710158
PDG3XST600ACR	3	600Vac, 50/60Hz	Pigtail 3m	PDC710159
PDG4XST600ACR	4	600Vac, 50/60Hz	Pigtail 3m	PDC710160
PDC1XST525ACT	1	480-525Vac, 50/60Hz	Screwtype	PDC710161
PDG2XST525ACT	2	480-525Vac, 50/60Hz	Screwtype	PDC710162
PDG3XST525ACT	3	480-525Vac, 50/60Hz	Screwtype	PDC710163
PDG4XST525ACT	4	480-525Vac, 50/60Hz	Screwtype	PDC710164
PDC1XST525ACS	1	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710165
PDG2XST525ACS	2	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710166
PDG3XST525ACS	3	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710167
PDG4XST525ACS	4	480-525Vac, 50/60Hz	Pigtail 0.75m	PDC710168
PDC1XST525ACR	1	480-525Vac, 50/60Hz	Pigtail 3m	PDC710169
PDG2XST525ACR	2	480-525Vac, 50/60Hz	Pigtail 3m	PDC710170
PDG3XST525ACR	3	480-525Vac, 50/60Hz	Pigtail 3m	PDC710171
PDG4XST525ACR	4	480-525Vac, 50/60Hz	Pigtail 3m	PDC710172
PDC1XST440ACT	1	380-440Vac, 50/60Hz	Screwtype	PDC710173
PDG2XST440ACT	2	380-440Vac, 50/60Hz	Screwtype	PDC710174
PDG3XST440ACT	3	380-440Vac, 50/60Hz	Screwtype	PDC710175
PDG4XST440ACT	4	380-440Vac, 50/60Hz	Screwtype	PDC710176
PDC1XST440ACS	1	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710177
PDG2XST440ACS	2	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710178
PDG3XST440ACS	3	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710179
PDG4XST440ACS	4	380-440Vac, 50/60Hz	Pigtail 0.75m	PDC710180
PDC1XST440ACR	1	380-440Vac, 50/60Hz	Pigtail 3m	PDC710181
PDG2XST440ACR	2	380-440Vac, 50/60Hz	Pigtail 3m	PDC710182
PDG3XST440ACR	3	380-440Vac, 50/60Hz	Pigtail 3m	PDC710183
PDG4XST440ACR	4	380-440Vac, 50/60Hz	Pigtail 3m	PDC710184
PDC1XST250ACDCT	1	200-240VAC/250VDC	Screwtype	PDC710185
PDG2XST250ACDCT	2	200-240VAC/250VDC	Screwtype	PDC710186
PDG3XST250ACDCT	3	200-240VAC/250VDC	Screwtype	PDC710187
PDG4XST250ACDCT	4	200-240VAC/250VDC	Screwtype	PDC710188
PDC1XST250ACDCS	1	200-240VAC/250VDC	Pigtail 0.75m	PDC710189
PDG2XST250ACDCS	2	200-240VAC/250VDC	Pigtail 0.75m	PDC710190
PDG3XST250ACDCS	3	200-240VAC/250VDC	Pigtail 0.75m	PDC710191
PDG4XST250ACDCS	4	200-240VAC/250VDC	Pigtail 0.75m	PDC710192
PDC1XST250ACDCR	1	200-240VAC/250VDC	Pigtail 3m	PDC710193
PDG2XST250ACDCR	2	200-240VAC/250VDC	Pigtail 3m	PDC710194
PDG3XST250ACDCR	3	200-240VAC/250VDC	Pigtail 3m	PDC710195
PDG4XST250ACDCR	4	200-240VAC/250VDC	Pigtail 3m	PDC710196
PDC1XST130ACDCT	1	110-130Vac/ 125DC	Screwtype	PDC710197
PDG2XST130ACDCT	2	110-130Vac/ 125DC	Screwtype	PDC710198
PDG3XST130ACDCT	3	110-130Vac/ 125DC	Screwtype	PDC710199
PDG4XST130ACDCT	4	110-130Vac/ 125DC	Screwtype	PDC710200
PDC1XST130ACDCS	1	110-130Vac/ 125DC	Pigtail 0.75m	PDC710201
PDG2XST130ACDCS	2	110-130Vac/ 125DC	Pigtail 0.75m	PDC710202
PDG3XST130ACDCS	3	110-130Vac/ 125DC	Pigtail 0.75m	PDC710203
PDG4XST130ACDCS	4	110-130Vac/ 125DC	Pigtail 0.75m	PDC710204
PDC1XST130ACDCR	1	110-130Vac/ 125DC	Pigtail 3m	PDC710205

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Shunt Release

Part no.	Frame	Voltage	Terminal type	Art no.
PDG2XST130ACDCR	2	110-130Vac/ 125DC	Pigtail 3m	PDC710206
PDG3XST130ACDCR	3	110-130Vac/ 125DC	Pigtail 3m	PDC710207
PDG4XST130ACDCR	4	110-130Vac/ 125DC	Pigtail 3m	PDC710208
PDC1XST24ACDCT	1	24Vac/DC	Screwtype	PDC710209
PDG2XST24ACDCT	2	24Vac/DC	Screwtype	PDC710210
PDG3XST24ACDCT	3	24Vac/DC	Screwtype	PDC710211
PDG4XST24ACDCT	4	24Vac/DC	Screwtype	PDC710212
PDC1XST24ACDCS	1	24Vac/DC	Pigtail 0.75m	PDC710213
PDG2XST24ACDCS	2	24Vac/DC	Pigtail 0.75m	PDC710214
PDG3XST24ACDCS	3	24Vac/DC	Pigtail 0.75m	PDC710215
PDG4XST24ACDCS	4	24Vac/DC	Pigtail 0.75m	PDC710216
PDC1XST24ACDCR	1	24Vac/DC	Pigtail 3m	PDC710217
PDG2XST24ACDCR	2	24Vac/DC	Pigtail 3m	PDC710218
PDG3XST24ACDCR	3	24Vac/DC	Pigtail 3m	PDC710219
PDG4XST24ACDCR	4	24Vac/DC	Pigtail 3m	PDC710220
PDC1XST60DCT	1	60Vdc	Screwtype	PDC710221
PDG2XST60DCT	2	60Vdc	Screwtype	PDC710222
PDG3XST60DCT	3	60Vdc	Screwtype	PDC710223
PDG4XST60DCT	4	60Vdc	Screwtype	PDC710224
PDC1XST60DCS	1	60Vdc	Pigtail 0.75m	PDC710225
PDG2XST60DCS	2	60Vdc	Pigtail 0.75m	PDC710226
PDG3XST60DCS	3	60Vdc	Pigtail 0.75m	PDC710227
PDG4XST60DCS	4	60Vdc	Pigtail 0.75m	PDC710228
PDC1XST60DCR	1	60Vdc	Pigtail 3m	PDC710229
PDG2XST60DCR	2	60Vdc	Pigtail 3m	PDC710230
PDG3XST60DCR	3	60Vdc	Pigtail 3m	PDC710231
PDG4XST60DCR	4	60Vdc	Pigtail 3m	PDC710232
PDC1XST48DCT	1	48Vdc	Screwtype	PDC710233
PDG2XST48DCT	2	48Vdc	Screwtype	PDC710234
PDG3XST48DCT	3	48Vdc	Screwtype	PDC710235
PDG4XST48DCT	4	48Vdc	Screwtype	PDC710236
PDC1XST48DCS	1	48Vdc	Pigtail 0.75m	PDC710237
PDG2XST48DCS	2	48Vdc	Pigtail 0.75m	PDC710238
PDG3XST48DCS	3	48Vdc	Pigtail 0.75m	PDC710239
PDG4XST48DCS	4	48Vdc	Pigtail 0.75m	PDC710240
PDC1XST48DCR	1	48Vdc	Pigtail 3m	PDC710241
PDG2XST48DCR	2	48Vdc	Pigtail 3m	PDC710242
PDG3XST48DCR	3	48Vdc	Pigtail 3m	PDC710243
PDG4XST48DCR	4	48Vdc	Pigtail 3m	PDC710244
PDC1XST12DCT	1	12Vdc	Screwtype	PDC710245
PDG2XST12DCT	2	12Vdc	Screwtype	PDC710246
PDG3XST12DCT	3	12Vdc	Screwtype	PDC710247
PDG4XST12DCT	4	12Vdc	Screwtype	PDC710248
PDC1XST12DCS	1	12Vdc	Pigtail 0.75m	PDC710249
PDG2XST12DCS	2	12Vdc	Pigtail 0.75m	PDC710250
PDG3XST12DCS	3	12Vdc	Pigtail 0.75m	PDC710251
PDG4XST12DCS	4	12Vdc	Pigtail 0.75m	PDC710252
PDC1XST12DCR	1	12Vdc	Pigtail 3m	PDC710253
PDG2XST12DCR	2	12Vdc	Pigtail 3m	PDC710254
PDG3XST12DCR	3	12Vdc	Pigtail 3m	PDC710255
PDG4XST12DCR	4	12Vdc	Pigtail 3m	PDC710256

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

IEC Direct Rotary Handle

Part no.	Frame	Voltage	Art no.
PDC1XHMCS	1	PDC1 Direct Handle, Standard Lockable Handle, Standard	PDC710257
PDC1XHMCE	1	PDC1 Direct Handle, Emergency Lockable Handle, Emergency	PDC710258
PDC1XHMCSN	1	PDC1 Direct Handle, Standard with Door Interlock, Standard	PDC710259
PDC1XHMCEN	1	PDC1 Direct Handle, Emergency with Door Interlock, Emergency	PDC710260
PDC1XHMCSP	1	PDC1 Direct Handle, Standard with mech padlock, Standard	PDC710261
PDC1XHMCEP	1	PDC1 Direct Handle, Emergency with mech padlock, Emergency	PDC710262
PDC1XHMCSK	1	PDC1 Direct Handle, Standard with mech keylock, Standard	PDC710263
PDC1XHMCEK	1	PDC1 Direct Handle, Emergency with mech keylock, Emergency	PDC710264
PDC1XHMCSNP	1	PDC1 Direct Handle, Standard With door interlock and mech padlock, Standard	PDC710265
PDC1XHMCENP	1	PDC1 Direct Handle, Emergency With door interlock and mech padlock, Emergency	PDC710266
PDC1XHMCSNK	1	PDC1 Direct Handle, Standard With door interlock and mech keylock, Standard	PDC710267
PDC1XHMCENK	1	PDC1 Direct Handle, Emergency With door interlock and mech keylock, Emergency	PDC710268

IEC Door Rotary Handle

Part no.	Frame	Voltage	Art no.
PDC1XHMDS	1	PDC1 Door Handle, Standard Lockable handle, Standard	PDC710269
PDC1XHMDCE	1	PDC1 Door Handle, Emergency lockable handle, Emergency	PDC710270
PDC1XHMDSP	1	PDC1 Door Handle, Standard with mech padlock, Standard	PDC710271
PDC1XHMDCEP	1	PDC1 Door Handle, Emergency with mech padlock, Emergency	PDC710272
PDC1XHMDSK	1	PDC1 Door Handle, Standard with mech keylock, Standard	PDC710273
PDC1XHMDCEK	1	PDC1 Door Handle, Emergency with mech keylock, Emergency	PDC710274

IEC Direct Rotary Handle

Part no.	Frame	Voltage	Art no.
PDG2XHMCS	2	PDG2 Direct Handle, Standard Lockable Handle, Standard	PDC710275
PDG2XHMCE	2	PDG2 Direct Handle, Emergency Lockable Handle, Emergency	PDC710276
PDG2XHMCSN	2	PDG2 Direct Handle, Standard with Door Interlock, Standard	PDC710277
PDG2XHMCEN	2	PDG2 Direct Handle, Emergency with Door Interlock, Emergency	PDC710278
PDG2XHMCSP	2	PDG2 Direct Handle, Standard with mech padlock, Standard	PDC710279
PDG2XHMCEP	2	PDG2 Direct Handle, Emergency with mech padlock, Emergency	PDC710280
PDG2XHMCSK	2	PDG2 Direct Handle, Standard with mech keylock, Standard	PDC710281
PDG2XHMCEK	2	PDG2 Direct Handle, Emergency with mech keylock, Emergency	PDC710282
PDG2XHMCSNP	2	PDG2 Direct Handle, Standard With door interlock and mech padlock, Standard	PDC710283
PDG2XHMCENP	2	PDG2 Direct Handle, Emergency With door interlock and mech padlock, Emergency	PDC710284
PDG2XHMCSNK	2	PDG2 Direct Handle, Standard With door interlock and mech keylock, Standard	PDC710285
PDG2XHMCENK	2	PDG2 Direct Handle, Emergency With door interlock and mech keylock, Emergency	PDC710286

IEC Door Rotary Handle

Part no.	Frame	Voltage	Art no.
PDG2XHMDS	2	PDG2 Door Handle, Standard Lockable handle, Standard	PDC710287
PDG2XHMDCE	2	PDG2 Door Handle, Emergency lockable handle, Emergency	PDC710288
PDG2XHMDSP	2	PDG2 Door Handle, Standard with mech padlock, Standard	PDC710289
PDG2XHMDCEP	2	PDG2 Door Handle, Emergency with mech padlock, Emergency	PDC710290
PDG2XHMDSK	2	PDG2 Door Handle, Standard with mech keylock, Standard	PDC710291
PDG2XHMDCEK	2	PDG2 Door Handle, Emergency with mech keylock, Emergency	PDC710292

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

IEC Direct Rotary Handle

Part no.	Frame	Voltage	Art no.
PDG3XHMCS	3	PDG3 Direct Handle, Standard Lockable Handle, Standard	PDC710293
PDG3XHMCE	3	PDG3 Direct Handle, Emergency Lockable Handle, Emergency	PDC710294
PDG3XHMCSN	3	PDG3 Direct Handle, Standard with Door Interlock, Standard	PDC710295
PDG3XHMCEN	3	PDG3 Direct Handle, Emergency with Door Interlock, Emergency	PDC710296
PDG3XHMCS	3	PDG3 Direct Handle, Standard with mech padlock, Standard	PDC710297
PDG3XHMCEP	3	PDG3 Direct Handle, Emergency with mech padlock, Emergency	PDC710298
PDG3XHMCSK	3	PDG3 Direct Handle, Standard with mech keylock, Standard	PDC710299
PDG3XHMCEK	3	PDG3 Direct Handle, Emergency with mech keylock, Emergency	PDC710300
PDG3XHMCSNP	3	PDG3 Direct Handle, Standard With door interlock and mech padlock, Standard	PDC710301
PDG3XHMCENP	3	PDG3 Direct Handle, Emergency With door interlock and mech padlock, Emergency	PDC710302
PDG3XHMCSNK	3	PDG3 Direct Handle, Standard With door interlock and mech keylock, Standard	PDC710303
PDG3XHMCENK	3	PDG3 Direct Handle, Emergency With door interlock and mech keylock, Emergency	PDC710304

IEC Door Rotary Handle

Part no.	Frame	Voltage	Art no.
PDG3XHMD	3	PDG3 Door Handle, Standard Lockable handle, Standard	PDC710305
PDG3XHMD	3	PDG3 Door Handle, Emergency lockable handle, Emergency	PDC710306
PDG3XHMDSP	3	PDG3 Door Handle, Standard with mech padlock, Standard	PDC710307
PDG3XHMD	3	PDG3 Door Handle, Emergency with mech padlock, Emergency	PDC710308
PDG3XHMDSK	3	PDG3 Door Handle, Standard with mech keylock, Standard	PDC710309
PDG3XHMD	3	PDG3 Door Handle, Emergency with mech keylock, Emergency	PDC710310

IEC Direct Rotary Handle

Part no.	Frame	Voltage	Art no.
PDG4XHMCS	4	PDG4 Direct Handle, Standard Lockable Handle, Standard	PDC710311
PDG4XHMCE	4	PDG4 Direct Handle, Emergency Lockable Handle, Emergency	PDC710312
PDG4XHMCSN	4	PDG4 Direct Handle, Standard with Door Interlock, Standard	PDC710313
PDG4XHMCEN	4	PDG4 Direct Handle, Emergency with Door Interlock, Emergency	PDC710314
PDG4XHMCS	4	PDG4 Direct Handle, Standard with mech padlock, Standard	PDC710315
PDG4XHMCEP	4	PDG4 Direct Handle, Emergency with mech padlock, Emergency	PDC710316
PDG4XHMCSK	4	PDG4 Direct Handle, Standard with mech keylock, Standard	PDC710317
PDG4XHMCEK	4	PDG4 Direct Handle, Emergency with mech keylock, Emergency	PDC710318
PDG4XHMCSNP	4	PDG4 Direct Handle, Standard With door interlock and mech padlock, Standard	PDC710319
PDG4XHMCENP	4	PDG4 Direct Handle, Emergency With door interlock and mech padlock, Emergency	PDC710320
PDG4XHMCSNK	4	PDG4 Direct Handle, Standard With door interlock and mech keylock, Standard	PDC710321
PDG4XHMCENK	4	PDG4 Direct Handle, Emergency With door interlock and mech keylock, Emergency	PDC710322

IEC Door Rotary Handle

PDG4XHMD	4	PDG4 Door Handle, Standard Lockable handle, Standard	PDC710323
PDG4XHMD	4	PDG4 Door Handle, Emergency lockable handle, Emergency	PDC710324
PDG4XHMDSP	4	PDG4 Door Handle, Standard with mech padlock, Standard	PDC710325
PDG4XHMD	4	PDG4 Door Handle, Emergency with mech padlock, Emergency	PDC710326
PDG4XHMDSK	4	PDG4 Door Handle, Standard with mech keylock, Standard	PDC710327
PDG4XHMD	4	PDG4 Door Handle, Emergency with mech keylock, Emergency	PDC710328

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessories order list

Finger Protection

Part no.	Frame	Pole	Art no.
PDC1XFP3P	1	3P	PDC710329
PDC1XFP4P	1	4P	PDC710330
PDG2XFP3P	2	3P	PDC710331
PDG2XFP4P	2	4P	PDC710332
PDG3XFP3P	3	3P	PDC710333
PDG3XFP4P	3	4P	PDC710334

Terminal Cover

Part no.	Frame	Pole	Art no.
PDC1XTC3P	1	Terminal Cover, 3P	PDC710335
PDC1XTC4P	1	Terminal Cover, 4P	PDC710336
PDG2XTC3P	2	Terminal Cover, 3P	PDC710337
PDG2XTC4P	2	Terminal Cover, 4P	PDC710338
PDG3XTC3P	3	Terminal Cover, 3P	PDC710339
PDG3XTC4P	3	Terminal Cover, 4P	PDC710340
PDG4XTC3P	4	Terminal Cover, 3P	PDC710341
PDG4XTC4P	4	Terminal Cover, 4P	PDC710342

Mech Shaft

Part no.	Frame	Pole	Art no.
PDG12XHMS307	1,2	PDC1/PDG2 Handle Mech Shaft, 307mm / 12in, Standard	PDC710343
PDG12XHMS507	1,2	PDC1/PDG2 Handle Mech Shaft, 507mm / 20in, Standard	PDC710344
PDG34XHMS245	3,4	PDG3/4 Handle Mech Shaft, 245mm / 9in, Standard	PDC710345
PDG34XHMS445	3,4	PDG3/4 Handle Mech Shaft, 445mm / 17in, Standard	PDC710346

Handle

Part no.	Frame	Pole	Art no.
PDG12XHM79S	1,2	Handle Mech Shaft Handle, NFPA 79, Standard	PDC710351
PDG12XHM79E	1,2	Handle Mech Shaft Handle, NFPA 79, Emergency	PDC710352
PDG34XHM79S	3,4	Handle Mech Shaft Handle, NFPA 79, Standard	PDC710353
PDG34XHM79E	3,4	Handle Mech Shaft Handle, NFPA 79, Emergency	PDC710354

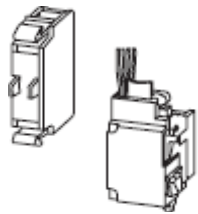
Interphase Barriers

Part no.	Frame	Pole	Art no.
PDC1XIB3P	1	PD1 Interphase Barriers, IEC, 3P	PDC710359
PDC1XIB4P	1	PD1 Interphase Barriers, IEC, 4P	PDC710360
PDC2XIB3P	2	PDC2 Interphase Barriers (Ext Housing), IEC, 3P	PDC710361
PDC2XIB4P	2	PDC2 Interphase Barriers (Ext Housing), IEC, 4P	PDC710362
PDG2XIB3P	2	PD2 Interphase Barriers, IEC, 3P	PDC710363
PDG2XIB4P	2	PD2 Interphase Barriers, IEC, 4P	PDC710364
PDG3XIB3P	3	PD3 Interphase Barriers, IEC, 3P	PDC710365
PDG3XIB4P	3	PD3 Interphase Barriers, IEC, 4P	PDC710366
PDG4XIB3P	4	PD4 Interphase Barriers, IEC, 3P	PDC710367
PDG4XIB4P	4	PD4 Interphase Barriers, IEC, 4P	PDC710368

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessory

Auxiliary Switches



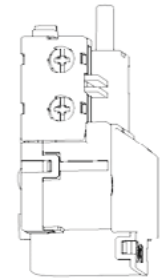
Auxiliary Switches

Description

Auxiliary/bell alarm contact suitable for PDC1-4 (alarm contact not suitable for PDC2 electronic type)

Frames	PDC1-4	
Rated making capacity	AC-15	DC-13
Rated making capacity I_{th}	4A	
Rated operational voltage	230/500/600V	220V
Rated operational current	4/1/0.6A	0.3A
Backup fuse	4A	

Under voltage release



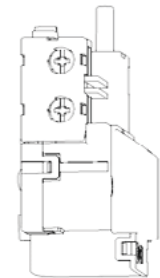
Under voltage release

Description

Crimp terminal or 0.75/3m cable suitable for PDC1-4, and not suitable for PDC1 when at 600V

Frames	PDC1	PDC2-4
Response voltage		
Drop (breaker tripped) U_s	0.35~0.7	0.35~0.7
Pickup U_s	0.85~1.1	0.85~1.1
Power Consumption in continuous operation:		
50/60 Hz 24 Vac	<3W	<3W
50/60 Hz 110-130 Vac	<3W	<3W
50/60 Hz 208-240 Vac	<3W	<3W
50/60 Hz 380-440 Vac	<3W	<3W
50/60 Hz 480-525 Vac	<3W	<3W
50/60 Hz 600 Vac	<3W	<3W
12 Vdc	<3W	<3W
24 Vdc	<3W	<3W
48 Vdc	<3W	<3W
60 Vdc	<3W	<3W
125 Vdc	<3W	<3W
250 Vdc	<3W	<3W
Maximum opening time	<15	<20

Shunt Trip



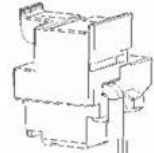
Shunt Trip

Description

Crimp terminal or 0.75/3m cable suitable for use with PDC1-4, and not suitable for PDC1 when at 600V

	PDC1	PDC2-4
Pickup (breaker tripped) U_s	0.7~1.1	0.7~1.1
Power Consumption in continuous operation:		
50/60 Hz 24 Vac/24 Vdc	<3W	<3W
50/60 Hz 110-130 Vac/125 Vdc	<3W	<3W
50/60 Hz 200-240 Vac/250 Vdc	<3W	<3W
50/60 Hz 380-440 Vac	<3W	<3W
50/60 Hz 480-525 Vac	<3W	<3W
50/60 Hz 600 Vac	<3W	<3W
12 Vdc	<3W	<3W
48 Vdc	<3W	<3W
60 Vdc	<3W	<3W
Maximum load duration	L	L
Maximum opening time	<15	<20

Bell alarm



Bell alarm

Description

Dedicated use for PDC2 circuit breaker

Rated making capacity	AC-15	DC-13
Rated thermal current I_{th}	5A	5A
Rated Voltage	AC 230V	DC 220V
Rated current	5A	0.2A

Power Defense Molded Case Circuit Breaker (PDC Series)

Accessory

PDC1/2



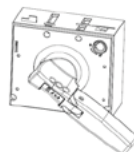
Direct Rotary Handle

Note

Direct Handle, Standard Lockable Handle, Standard
 Direct Handle, Emergency Lockable Handle, Emergency
 Direct Handle, Standard with Door Interlock, Standard
 Direct Handle, Emergency with Door Interlock, Emergency
 Direct Handle, Standard with mech padlock, Standard
 Direct Handle, Emergency with mech padlock, Emergency
 Direct Handle, Standard with mech keylock, Standard
 Direct Handle, Emergency with mech keylock, Emergency
 Direct Handle, Standard With door interlock and mech padlock, Standard
 Direct Handle, Emergency With door interlock and mech padlock, Emergency
 Direct Handle, Standard With door interlock and mech keylock, Standard
 Direct Handle, Emergency With door interlock and mech keylock, Emergency

- Not defeated in the locked OFF and ON positions
- Can be modified such that it can be defeated from the outside using a screwdriver, when it is in the unlocked ON position.
- Door can be opened in OFF

PDC3/4



PDC1/2

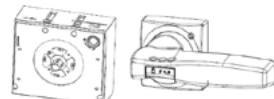


Door Rotary Handle

Note

For Use With
 Door Handle, Standard Lockable handle, Standard
 Door Handle, Emergency lockable handle, Emergency
 Door Handle, Standard with mech padlock, Standard
 Door Handle, Emergency with mech padlock, Emergency
 Door Handle, Standard with mech keylock, Standard
 Door Handle, Emergency with mech keylock, Emergency

PDC3/4



Extension shaft



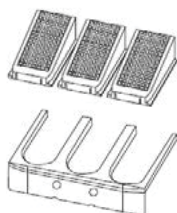
Extension shaft

Note

For Use With
 PDC1/PDG2 Handle Mech Shaft, 307mm / 12in
 PDC1/PDG2 Handle Mech Shaft, 507mm / 20in
 PDG3/4 Handle Mech Shaft, 245mm / 9in
 PDG3/4 Handle Mech Shaft, 445mm / 17in

Can be cut to required length.

Finger Protection



Finger Protection

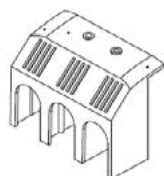
Description

Note

Finger touch protection cover, IP2X for box-type wiring terminals, suitable for Frame 1/2/3

-

Terminal Cover



Terminal Cover

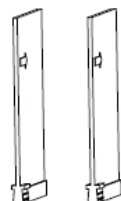
Description

Note

For use with PDC1/2/3/4, 3/4 Pole

- Contains parts for a terminal located at top or bottom
- Contact protection against direct contact where cable lugs, bars or tunnel terminals are used
- Contained in the set with tunnel terminals and screw terminals

Phase Barrier



Phase Barrier

Note

- Contains parts for a terminal located at top or bottom
- Included with the connection width extension.
- Insulation protection where cable lugs, bars, or at conductor are used

Power Defense Molded Case Circuit Breaker (PDC Series)

Technical data

Circuit breaker			PDC1				PDC2				
Max rated uninterrupted current/continuous current rating I _{cu} ,A			160				250				
Number of poles			3 & 4				3 & 4				
Maximum Breaker Capacity(kA rms) Vac 50-60 Hz			F	G	K	M	F	G	K	M	N
EC 60947-2	220-240 Vac	I _{cu}	35	55	85	100	35	55	85	100	150
		I _{cs}	35	55	85	100	35	55	85	100	100
	380-415 Vac	I _{cu}	25	36	50	70	25	36	50	70	70
		I _{cs}	25	36	50	50	25	36	50	53	70
	440 Vac	I _{cu}	25	30	35	50	25	30	35	50	70
		I _{cs}	18.5	22.5	35	37	20	22.5	35	40	50
	660-690 Vac	I _{cu}	-	8	10	10	-	8	10	10	10
		I _{cs}	-	4	7.5	7.5	-	4	5	5	5
	125/250 Vdc	I _{cu}	-	-	-	14	-	-	-	-	22
		I _{cs}	-	-	-	14	-	-	-	-	22
Rated short circuit making capacity I _{cm}	220-240 Vac	I _{cm}	73.5	121	187	220	73.5	121	187	220	330
	380-415 Vac	I _{cm}	52.5	75.6	105	154	52.5	75.6	105	154	154
	440 Vac	I _{cm}	52.5	63	73.5	105	52.5	63	73.5	105	154
	660-690Vac	I _{cm}	-	16.8	21	21	-	16.8	21	21	21
	125-250 Vdc	I _{cm}	-	-	-	14	-	-	-	-	22
Withstand/Threshold of the frame kA		I _{cw}	-				1,8				
Clearing time @ 415V, ms		I _{cu} kA @ 415V	<10 ms				5.1 @ 70kA				
Amperage range		A	16-160				16-250				
Selectivity Category			A				A				
Reference Standard			IEC/CCC				IEC/CCC				
Maximum rated current I _n depending on the version			160				250				
Rated insulation voltage U, according to IEC 60947-2											
Main conducting paths, V			800				800 (TM), 690 (PXR)				
Auxiliary circuits, V			690				690				
Rated impulse withstand voltage U _{imp}											
Main conducting paths (kV)			6				8				
Auxiliary circuits (kV)			6				4				
Rated operational voltage Vac U _e IEC/CCC, V			690				690				
Rated operational voltage Vdc U _e IEC/CCC, V			250				250				
Permissible ambient temperature range (for storage and operation)			-20°C to 70°C				-20°C to 70°C				
Product complies with IEC 60-068Shock			Yes				-				
Plant protection	40°C		100%				100%				
	45°C		97*%				100%				
	50°C		95%				100%				
	55°C		92*%				98%				
	60°C		90%				95%				
	70°C		80%				90%				
Altitude derating factor			-				-				
Endurance (operating cycles) no-load (mechanical endurance)			25000				20000				
Endurance (operating cycles) with load (electrical endurance)			10000				10000				
IEC/EN60947-4 B			AC-1								
Maximum switching frequency # operations per minute/min			2				2				
H x W x D (inches)											
3 pole			144.8 x 89.9 x 68.1 (5.70 x 3.54 x 2.68)				200.9 x 104.6 x 88.9 (7.90 x 4.12 x 3.501)				
4 pole			144.8 x 119.9 x 68.1 (5.70 x 4.72 x 2.68)				200.9 x 139.5 x 88.9 (7.90 x 5.494 x 3.501)				
Pole to pole distance mm (inches)			30.00 (1.18)				34.93 (1.375)				
Approx Weight kg (lbs)	Fixed	TMTU	1.046kg (2.30 lbs) /3P				1.91 (4.21)kg/ 3P				
			1.325kg (2.92 lbs)/4P				2.58 (5.68)/ 4P				
		PXR	-				-				
			-				-				
Suitable for reverse-feed applications			Yes				Yes				
Blow out dimension		IEC	60 mm (690V) & 30mm (440V)				25.4				
Required spacing between circuit breakers IEC (mm)			0				0				
Installation methods			Fixed				Fixed				
IP Degree			IP2X protection with finger protection				IP2X with finger protection				
Pollution degree			III				III				
Over-voltage category			III				III				
Annex H IT capability		415 V	Yes				Yes				

Power Defense Molded Case Circuit Breaker (PDC Series)

Technical data

PDC3					PDC4			
630					800			
3 & 4					3 & 4			
F	G	K	M	N	G	K	M	N
35	55	85	100	150	55	85	100	100
35	55	85	100	100	55	85	100	100
25	36	50	70	70	36	50	70	70
25	36	50	53	70	36	50	53	70
25	30	35	50	70	30	35	50	65
20	22.5	35	40	50	22.5	35	40	50
-	8	10	15	20	8	10	15	20
-	4	5	7.5	10	4	5	7.5	10
-	-	-	-	42	22	22	25	25
-	-	-	-	42	22	22	25	25
73.5	121	187	220	330	121	187	220	220
52.5	75.6	105	154	154	75.6	105	154	154
52.5	63	73.5	105	154	63	73.5	105	143
-	16.8	21	31.5	42	16.8	21	31.5	42
-	-	-	-	42	-	-	-	25
6.3					6			
8.65 @ 53kA, 6.2 @ 70kA					5.23 @ 70kA			
250/320/400/500/630					300-800			
A					A			
IEC/CCC					IEC/CCC			
630					800			
800 (TM), 690 (PXR)					800 (TM), 690 (PXR)			
690					690			
8(TM),6(PXR)					8(TM),6(PXR)			
4					4			
690					690			
250					250			
-20°C to 70°C					-20°C to 70°C			
Yes					Yes			
100%					100			
96%					97%			
91%					94%			
86%					90%			
82%					88%			
70%					80%			
-					3C/1000ft from 6000 feet to 20000 feet 2C/1000ft above 20000 feet			
15000					10000			
5000					3000			
1					1			
257.1 x 138.9 x 109.1 (10.125 x 5.47 x 4.297)					406.4 x 209.6 x 111.2 (16 x 8.25 x 4.38)			
257.1 x 182.9 x 109.1(10.125 x 7.22 x 4.297)					406.4 x 279.4 x 111.2 (16 x 11.0 x 4.38)			
43.66 (1.719)					70 (2.75)			
5.8 (12.78) / 3P					13.2 (29.1)/3P			
7.9 (17.41) / 4P					17.55 (38.69) /4P *			
-					13.6 (29.98) / 3P (ETU)			
-					18.088 (39.87) /4P (ETU) *			
Yes					Yes			
25.4					60 mm			
0					0 mm			
Fixed					Fixed			
IP2X with finger protection					-			
III					III			
III					III			
Yes					Yes			

Power Defense Molded Case Circuit Breaker (PDC Series)

Technical data

Thermal Trip Unit

Rated Current (A)	I_N 40°C ^①	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630	800	1000
Frames	PDC1	•	•	•	•	•	•	•	•	•	•	•								
	PDC2										•	•	•	•						
	PDC3													•	•	•	•	•		
	PDC4																		•	•

Thermal Protection

Current Setting (A)	$I_r = I_N \times \dots$																			
I_r	PDC1	$I_r = 0.8-1.0 I_N$																		
	PDC2										$I_r = 0.8-1.0 I_N$									
	PDC3													$I_r = 0.8-1.0 I_N$						
	PDC4																		$I_r = 0.8-1.0 I_N$	

Short-Circuit Protection

Current Setting (A)	I_j																			
PDC1	PDC1	350A				$10I_N$				$8I_N$										
	PDC2									$I_j = 5-8 I_N$										
	PDC3													$I_j = 5-8 I_N$						
	PDC4																		$I_j = 5-8 I_N$	

Neutral Protection

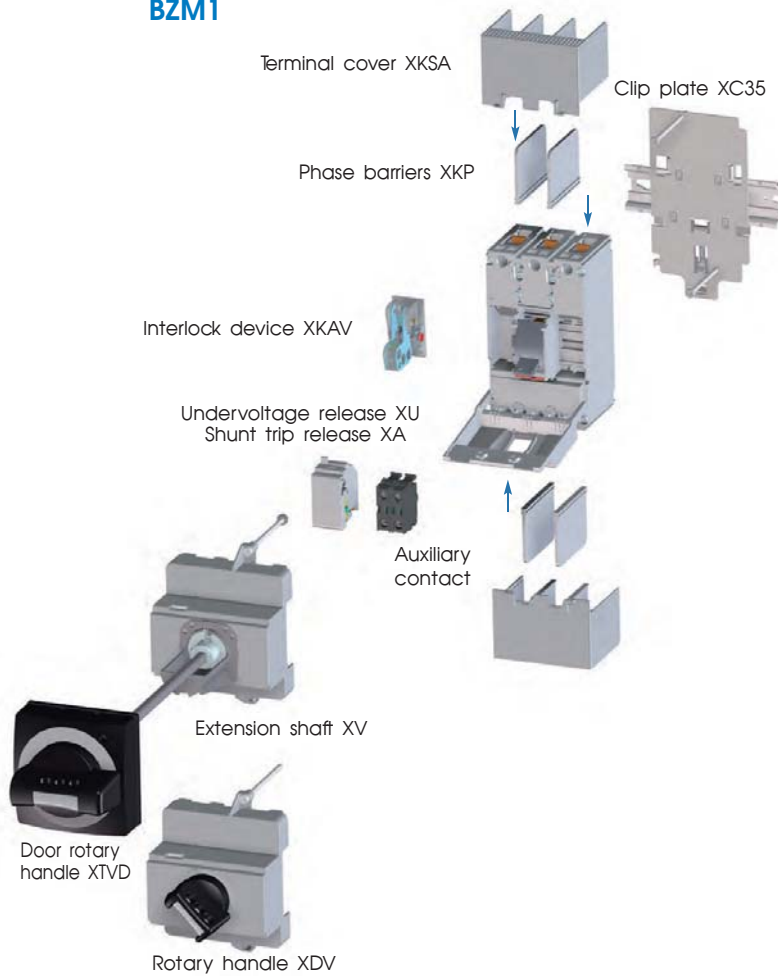
4 Pole	PDC1	100%																		
	PDC2										60%/100%									
	PDC3													60%/100%						
	PDC4																		60%/100%	

^① Without derating at 40°C, In determining the maximum permissible current loads at different ambient temperatures see the derating coefficient table.

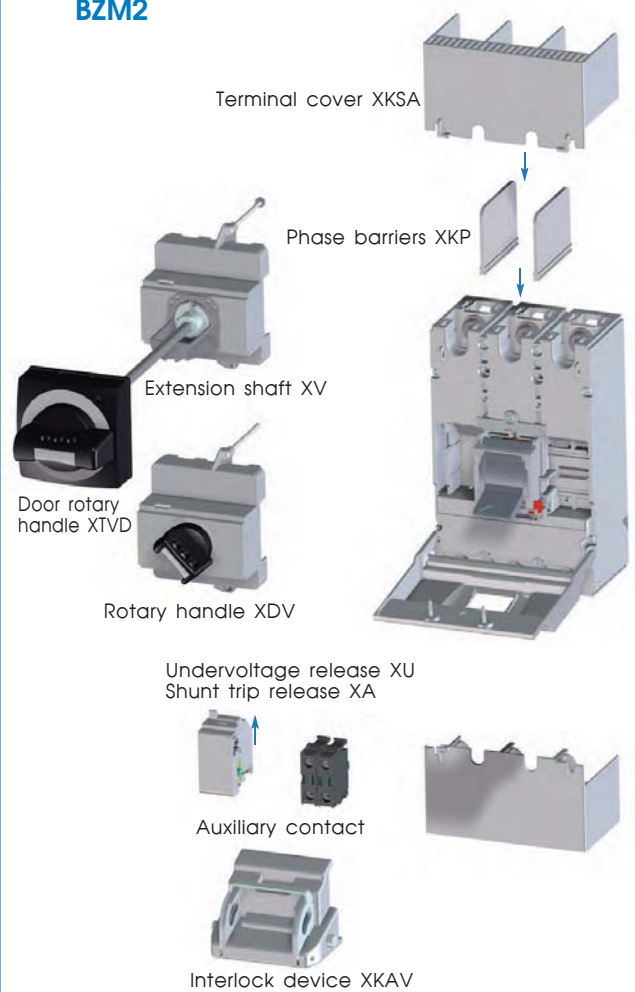
Molded Case Circuit Breaker (BZM Series)

Range overview

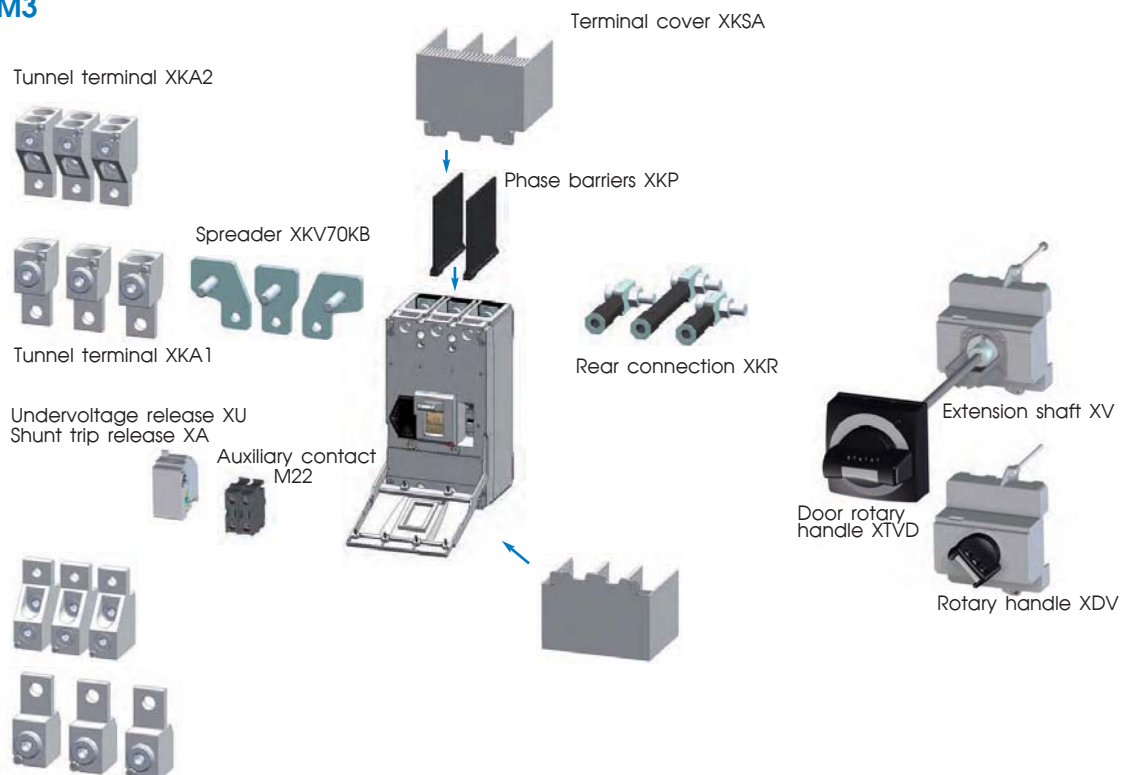
BZM1



BZM2



BZM3



Molded Case Circuit Breaker (BZM Series)

BZM selection

	BZM	D	1	2	3	A	16	25	36	50	BT
BZM _____ Building circuit breaker											
Breaking capacity _____											
D 15kA E 18kA B 25kA C 36kA N 50kA											
Frame size 1, 2, 3 _____											
Number of poles _____											
1 1 pole 2 2 pole 3 pole 4 4 pole											
Rated current 16 - 400 A _____											
Cable fixing _____ Cable lug terminal BT Box terminal											

Switching capacity

			BZMD1	BZMD1	BZMD1	BZMD1	BZMD1	BZMD1
Rated short-circuit breaking capacity								
I_{cu} to IEC/EN 60947 operating sequence								
0-t-CO, 130 V 50/60 Hz	I_{cu}	kA	30	36	50	-	-	-
0-t-CO, 240 V 50/60 Hz	I_{cu}	kA	30	36	50	-	-	-
0-t-CO,400/415V50/60Hz¹⁾	I_{cu}	kA	15	18	25	36/400VAC	25	36
I_{cs} to IEC/EN 60947 operating sequence								
0-t-CO-t-CO, 130 V 50/60 Hz	I_{cs}	kA	15	81	25	-	-	-
0-t-CO-t-CO, 240 V 50/60 Hz	I_{cs}	kA	15	81	25	-	-	-
0-t-CO-t-CO,400/415V50/60Hz¹⁾	I_{cs}	kA	7.5	9	12.5	18/9*/400VAC	12.5	9
Utilization category to IEC/EN 60947-2								
*9kA/400VAC at $I_N=80, 100A$			A	A	A	A	A	A
Notes ¹⁾ for BZM1 1pole 230/400 V, 50/60Hz								

Molded Case Circuit Breaker (BZM Series)

BZM1

1-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$$I_n = I_u$$

A

Short circuit
releases

/

A



Economy switching capacity
18kA at 240 V 50/60 Hz

Part no.
Article no.
1 of each

Cable lug terminal



20	256 - 384	BZME1-1-A20 186782
25	320 - 480	BZME1-1-A25 186783
32	320 - 480	BZME1-1-A32 186784
40	320 - 480	BZME1-1-A40 186785
50	480 - 720	BZME1-1-A50 186786
63	480 - 720	BZME1-1-A63 186787
80	800 - 1200	BZME1-1-A80 186788
100	800 - 1200	BZME1-1-A100 186789
20	256 - 384	BZME1-1-A20-BT 186791
25	320 - 480	BZME1-1-A25-BT 186792
32	320 - 480	BZME1-1-A32-BT 186793
40	320 - 480	BZME1-1-A40-BT 186794
50	480 - 720	BZME1-1-A50-BT 186795
63	480 - 720	BZME1-1-A63-BT 186796
80	800 - 1200	BZME1-1-A80-BT 186797
100	800 - 1200	BZME1-1-A100-BT 186798

Box terminal



Note: 1 piece phase barrier BZM1-XKP included in delivery

2-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$$I_n = I_u$$

A

Short circuit
releases

/

A



Domestic switching capacity
15kA at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Economy switching capacity
18kA at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Basic switching capacity
25kA at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Cable lug terminal



20	256 - 384	BZMD1-2-A20 129808	BZME1-2-A20 129914	BZMB1-2-A20 112585
25	320 - 480	BZMD1-2-A25 129880	BZME1-2-A25 29916	BZMB1-2-A25 12587
32	320 - 480	BZMD1-2-A32 129882	BZME1-2-A32 129918	BZMB1-2-A32 112589
40	320 - 480	BZMD1-2-A40 129884	BZME1-2-A40 129920	BZMB1-2-A40 112591
50	480 - 720	BZMD1-2-A50 129886	BZME1-2-A50 129922	BZMB1-2-A50 112593
63	480 - 720	BZMD1-2-A63 129888	BZME1-2-A63 129924	BZMB1-2-A63 112595
80	800 - 1200	BZMD1-2-A80 129890	BZME1-2-A80 129926	BZMB1-2-A80 112597
100	800 - 1200	BZMD1-2-A100 129892	BZME1-2-A100 129928	BZMB1-2-A100 112599
20	256 - 384	BZMD1-2-A20-BT 129896	BZME1-2-A20-BT 129932	BZMB1-2-A20-BT 112605
25	320 - 480	BZMD1-2-A25-BT 129898	BZME1-2-A25-BT 129934	BZMB1-2-A25-BT 112607
32	320 - 480	BZMD1-2-A32-BT 129900	BZME1-2-A32-BT 129936	BZMB1-2-A32-BT 112609
40	320 - 480	BZMD1-2-A40-BT 129902	BZME1-2-A40-BT 129938	BZMB1-2-A40-BT 112611
50	480 - 720	BZMD1-2-A50-BT 129904	BZME1-2-A50-BT 129940	BZMB1-2-A50-BT 112613
63	480 - 720	BZMD1-2-A63-BT 129906	BZME1-2-A63-BT 129942	BZMB1-2-A63-BT 112615
80	800 - 1200	BZMD1-2-A80-BT 129908	BZME1-2-A80-BT 129944	BZMB1-2-A80-BT 112617
100	800 - 1200	BZMD1-2-A100-BT 129910	BZME1-2-A100-BT 129946	BZMB1-2-A100-BT 112619

Box terminal



Note: 1 piece phase barrier BZM1-XKP included in delivery

Molded Case Circuit Breaker (BZM Series)

BZM1

3-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$$I_n = I_u$$

A

Short circuit
releases
/

A



Domestic switching
capacity 15kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Economy switching
capacity 18kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Basic switching
capacity 25kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Comfort switching
capacity 36kA
at 400 V 50/60 Hz

Part no.
Article no.
1 of each

Cable lug terminal



16	256 - 384	BZMD1-A16 111526	BZME1-A16 111527	BZMB1-A16 111528	
20	256 - 384	BZMD1-A20 111529	BZME1-A20 111530	BZMB1-A20 111531	
25	320 - 480	BZMD1-A25 111532	BZME1-A25 111533	BZMB1-A25 111534	
32	320 - 480	BZMD1-A32 111535	BZME1-A32 111536	BZMB1-A32 111537	BZMC1-A32 131268
40	320 - 480	BZMD1-A40 111538	BZME1-A40 111539	BZMB1-A40 111540	BZMC1-A40 131269
50	480 - 720	BZMD1-A50 111541	BZME1-A50 111542	BZMB1-A50 111543	BZMC1-A50 131270
63	480 - 720	BZMD1-A63 111544	BZME1-A63 111545	BZMB1-A63 111546	BZMC1-A63 131271
80	800 - 1200	BZMD1-A80 111547	BZME1-A80 111548	BZMB1-A80 111549	BZMC1-A80 131272
100	800 - 1200	BZMD1-A100 111550	BZME1-A100 111551	BZMB1-A100 111552	BZMC1-A100 131273
125	800 - 1200	BZMD1-A125 112491	BZME1-A125 112493		
16	256 - 384	BZMD1-A16-BT 111553	BZME1-A16-BT 111554	BZMB1-A16-BT 111555	
20	256 - 384	BZMD1-A20-BT 111556	BZME1-A20-BT 111557	BZMB1-A20-BT 111558	
25	320 - 480	BZMD1-A25-BT 111559	BZME1-A25-BT 111560	BZMB1-A25-BT 111561	
32	320 - 480	BZMD1-A32-BT 111562	BZME1-A32-BT 111563	BZMB1-A32-BT 111564	BZMC1-A32-BT 131276
40	320 - 480	BZMD1-A40-BT 111565	BZME1-A40-BT 111566	BZMB1-A40-BT 111567	BZMC1-A40-BT 131277
50	480 - 720	BZMD1-A50-BT 111568	BZME1-A50-BT 111569	BZMB1-A50-BT 111570	BZMC1-A50-BT 131278
63	480 - 720	BZMD1-A63-BT 111571	BZME1-A63-BT 111572	BZMB1-A63-BT 111573	BZMC1-A63-BT 131279
80	800 - 1200	BZMD1-A80-BT 111574	BZME1-A80-BT 111575	BZMB1-A80-BT 111576	BZMC1-A80-BT 131280
100	800 - 1200	BZMD1-A100-BT 111577	BZME1-A100-BT 111578	BZMB1-A100-BT 111579	BZMC1-A100-BT 131281
125	800 - 1200	BZMD1-A125-BT 112497	BZME1-A125-BT 112499		

Note: 2 pieces phase barriers BZM1-XKP included in delivery

4-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$$I_n = I_u$$

A

Short circuit
releases
/

A



Domestic switching
capacity 15kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Economy switching
capacity 18kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Basic switching
capacity 25kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Cable lug terminal



16	256 - 384	BZMD1-4-A16 121776	BZME1-4-A16 112503	BZMB1-4-A16 112505	
20	256 - 384	BZMD1-4-A20 121778	BZME1-4-A20 112507	BZMB1-4-A20 112509	
25	320 - 480	BZMD1-4-A25 121940	BZME1-4-A25 112511	BZMB1-4-A25 112513	
32	320 - 480	BZMD1-4-A32 121942	BZME1-4-A32 112515	BZMB1-4-A32 112517	
40	320 - 480	BZMD1-4-A40 121944	BZME1-4-A40 112519	BZMB1-4-A40 112521	
50	480 - 720	BZMD1-4-A50 121946	BZME1-4-A50 112523	BZMB1-4-A50 112525	
63	480 - 720	BZMD1-4-A63 121948	BZME1-4-A63 112527	BZMB1-4-A63 112529	
80	800 - 1200	BZMD1-4-A80 121950	BZME1-4-A80 112531	BZMB1-4-A80 112533	
100	800 - 1200	BZMD1-4-A100 121952	BZME1-4-A100 112535	BZMB1-4-A100 112537	
16	256 - 384	BZMD1-4-A16-BT 121956	BZME1-4-A16-BT 112543	BZMB1-4-A16-BT 112545	
20	256 - 384	BZMD1-4-A20-BT 121958	BZME1-4-A20-BT 112547	BZMB1-4-A20-BT 112549	
25	320 - 480	BZMD1-4-A25-BT 121960	BZME1-4-A25-BT 112551	BZMB1-4-A25-BT 112553	
32	320 - 480	BZMD1-4-A32-BT 121962	BZME1-4-A32-BT 555211	BZMB1-4-A32-BT 112557	
40	320 - 480	BZMD1-4-A40-BT 121964	BZME1-4-A40-BT 112559	BZMB1-4-A40-BT 112561	
50	480 - 720	BZMD1-4-A50-BT 121966	BZME1-4-A50-BT 112563	BZMB1-4-A50-BT 112565	
63	480 - 720	BZMD1-4-A63-BT 121968	BZME1-4-A63-BT 112567	BZMB1-4-A63-BT 112569	
80	800 - 1200	BZMD1-4-A80-BT 121970	BZME1-4-A80-BT 112571	BZMB1-4-A80-BT 112573	
100	800 - 1200	BZMD1-4-A100-BT 121972	BZME1-4-A100-BT 112575	BZMB1-4-A100-BT 112577	

Note: 2 pieces phase barriers BZM1-XKP included in delivery

Molded Case Circuit Breaker (BZM Series)

BZM 2 & 3

3-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$I_n = I_u$
A

Short circuit
releases
I

A


Basic switching
capacity 25kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Comfort switching
capacity 36kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Cable lug terminal



125	1400 - 2100	BZMB2-A125 119735	BZMC2-A125 121804
160	1400 - 2100	BZMB2-A160 116973	BZMC2-A160 121805
200	1400 - 2100	BZMB2-A200 116974	BZMC2-A200 121806
250	1400 - 2100	BZMB2-A250 116975	BZMC2-A250 121807

Cable lug terminal
(without overload
release)



250	1400 - 2100	BZMB2-S250 131668	
-----	-------------	-----------------------------	--

Note: 2 pieces phase barriers BZM2-XKP included in delivery

Cable lug terminal



3-pole

Protection of systems and cables

Rated current
= rated
uninterrupted
current I

$I_n = I_u$
A

Short circuit
releases
I

A


Basic switching
capacity 25kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Comfort switching
capacity 36kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

Normal switching
capacity 50kA
at 415 V 50/60 Hz

Part no.
Article no.
1 of each

250	2600-3800	BZMB3-A250 158276	BZMC3-A250 158280	BZMN3-A250 158284
320	2600-3800	BZMB3-A320 158277	BZMC3-A320 158281	BZMN3-A320 158285
350	2600-3800	BZMB3-A350 158278	BZMC3-A350 158282	BZMN3-A350 158286
400	2600-3800	BZMB3-A400 158279	BZMC3-A400 158283	BZMN3-A400 158287

Note: 2 pieces phase barriers BZM3-XKP included in delivery

Molded Case Circuit Breaker (BZM Series)

Accessories BZM1



Auxiliary contacts (only for 2, 3 and 4pole)

Description	Part no. Article no.	Std.pack
1 NO	M22-K10 216376	20
1 NC	M22-K01 216378	20



Description	Part no. Article no.	Std.pack
Phase barrier	BZM1-XKP 109760	1



Undervoltage release (only 3 and 4pole)

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XU230-240VAC 158053	1
400-440VAC	BZM1-3-XU400-415VAC 158054	1
24VDC	BZM1-3-XU24VDC 158055	1



Shunt trip release (only 3 and 4pole)

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XA230-240VAC 158056	1
400-440VAC	BZM1-3-XA400-440VAC 158057	1
24VDC	BZM1-3-XA24VDC 158058	1



Terminal cover (only for 1pole BZM)

Description	Part no. Article no.	Std.pack
for 1pole BZM	BZM1-1-XKSA 166268	1
for 2pole BZM	BZM1-2-XKSA 112484	1
for 3pole BZM	BZM1-3-XKSA 112482	1
for 4pole BZM	BZM1-4-XKSA 112483	1



Rotary handle (only for 2, 3 and 4pole)

Description	Part no. Article no.	Std.pack
Rotary handle	BZM1-XDV 113168	1



Door rotary handle (only for 2, 3 and 4pole)

Description	Part no. Article no.	Std.pack
Door rotary handle	BZM1-XTVD 112485	1



Extension axle (only for XTVD)

Description	Part no. Article no.	Std.pack
Length 400 mm	BZM1-XV4 112486	1
Length 600 mm	BZM1-XV6 112487	1



DIN-rail-adaptor

Description	Part no. Article no.	Std.pack
For 2-pole BZM	BZM1-2-XC35 112489	1
For 3- a.4-pole BZM	BZM1-XC35 112488	1



Cable Lug

Description	Part no. Article no.	Std.pack
35 mm ² / M6	BZM1-XKS35 113609	10
50 mm ² / M6	BZM1-XKS50 113750	10



BZM1 Locking Device

Description	Part no. Article no.	Std.pack
BZM1 Locking Device	BZM1-XKAV 152899	1

Molded Case Circuit Breaker (BZM Series)

Accessories BZM2



Auxiliary contacts

Description	Part no. Article no.	Std.pack
1 NO	M22-K10 216376	20
1 NC	M22-K01 216378	20



Phase barrier

Description	Part no. Article no.	Std.pack
	BZM2-XKP 118720	1



Undervoltage release

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XU230-240VAC 158053	1
400-440VAC	BZM1-3-XU400-415VAC 158054	1
24VDC	BZM1-3-XU24VDC 158055	1



Shunt trip release

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XA230-240VAC 158056	1
400-440VAC	BZM1-3-XA400-440VAC 158057	1
24VDC	BZM1-3-XA24VDC 158058	1



Terminal cover

Description	Part no. Article no.	Std.pack
	BZM2-XKSA 118727	1



Interlock Device

Description	Part no. Article no.	Std.pack
	BZM2-XKAV 131669	1



Rotary handle (only for 3 and 4pole)

Description	Part no. Article no.	Std.pack
	BZM2-XDV 171033	1



Door rotary handle (only for 3 and 4pole)

Description	Part no. Article no.	Std.pack
	BZM2-XTVD 171034	1



Extension axle (only for XTVD)

Description	Part no. Article no.	Std.pack
Length 400 mm	BZM1-XV4 112486	1
Length 600 mm	BZM1-XV6 112487	1

Molded Case Circuit Breaker (BZM Series)

Accessories BZM3



Auxiliary contacts

Description	Part no. Article no.	Std.pack
1 NO	M22-K10 216376	20
1 NC	M22-K01 216378	20



Tunnel terminal (for one of the breaker)

Description	Part no. Article no.	Std.pack
185 mm ²	BZM3-XKA1 158303	1
240 mm ²	BZM1-XKA2 158304	1



Phase barrier

Description	Part no. Article no.	Std.pack
	BZM3-XKP 158300	1



Cable lug

Description	Part no. Article no.	Std.pack
185 mm ²	NZM3-XKS185 260040	3
240 mm ²	NZM3-XKS240 260041	3



Undervoltage release

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XU230-240VAC 158053	1
400-440VAC	BZM1-3-XU400-415VAC 158054	1
24VDC	BZM1-3-XU24VDC 158055	1



Rotary handle (only for 3 and 4pole)

Description	Part no. Article no.	Std.pack
	BZM3-XDV 171035	1



Shunt trip release

Description	Part no. Article no.	Std.pack
230-240VAC	BZM1-3-XA230-240VAC 158056	1
400-440VAC	BZM1-3-XA400-440VAC 158057	1
24VDC	BZM1-3-XA24VDC 158058	1



Door rotary handle (only for 3 and 4pole)

Description	Part no. Article no.	Std.pack
	BZM3-XTVD 171036	1



Terminal cover

Description	Part no. Article no.	Std.pack
	BZM3-XKSA 158305	1



Rear connection

Description	Part no. Article no.	Std.pack
	BZM3-XKR 158301	1



Spreaders (for one side of the breaker)

Description	Part no. Article no.	Std.pack
	BZM3-XKV70KB 158302	1



Extension axle (only for XTVD)

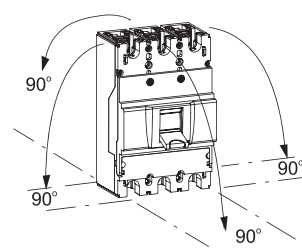
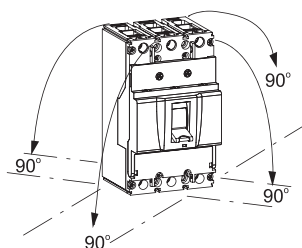
Description	Part no. Article no.	Std.pack
Length 400 mm	BZM3-XV4 171031	1
Length 600 mm	BZM3-XV6 171032	1

Molded Case Circuit Breaker (BZM Series)

Technical data BZM 1 & 2

Mechanical specifications

		Rated current max.125 A BZM1	Rated current max.125 A BZM2
Standards		IEC/EN 60947-2	IEC/EN 60947-2
Number of poles		1, 2, 3, 4	3
Device width	mm	1pole: 25, 2pole: 50, 3pole: 75, 4pole: 100	3-pole: 105
Frame size	mm	45	45
Socket size	mm	130	165
Device depth	mm	84.7	91.5
Terminals		Lift terminal, ring tongue connector	Ring tongue connector
Terminal capacity lift terminal	mm	rigid (solid/stranded) and flexible wire (2.5 - 50)	
Terminal capacity ring tongue		Diameter: max. 15	Diameter: max. 24
Busbar thickness			
Terminal screw	mm ²	M6 (Pozidriv PZ2)	M8
Terminal torque	mm	4	14
Degree of Protection (DIN VDE 0470)		Built-in behind panel IP40	Built-in behind panel IP40
Climatic conditions	Nm	acc. to IEC 68-2 (25..55°C / 90..95% RH)	acc. to IEC 68-2 (25..55°C / 90..95% RH)
Ambient temperature			
Storage	°C	-35 ... + 85	-35 ... + 85
Operation	°C	-25 ... + 70	-25 ... + 70
Mounting Positions		Vertical and 90° in all directions	Vertical and 90° in all directions



Protection System

Enclosures		With insulating surround: IP40	With insulating surround: IP40
Number of mechanical operating cycles		> 10.000	> 8.000
Pollution degree		3	3

Electrical specifications

		1pole	2,3 and 4pole	
Maximum LV h.b.c. fuse	AgG/gL	200	200	200
Rated operational voltage	U_e V AC	230/240,50/60Hz	230/240, 50/60 Hz	400/415,50/60Hz
Rated current	I_e A	16 up to 100	16 up to 100	125, 160, 200, 250
Rated impulse withstand voltage	U_{imp} V	4.000 (1.2/50 µsec)	4.000 (1.2/50 sec)	6.000 (1.2/50 sec)
Overvoltage category		III	III	III
Rated insulation voltage	U_i V	690	690	690
For use in IT electrical power networks	V	230/240	400/415	400/415
Direction of incoming supply		As required	As required	As required
Number of electrical operating cycles		> 1.500	> 1.500	> 1.000

Tripping characteristic

Conventional non-tripping current		$I_{nt}=1.05I_n$	$I_{nt}=1.05I_n$	$I_{nt}=1.05I_n$
Conventional tripping current		$I_{nt}=1.30I_n$	$I_{nt}=1.30I_n$	$I_{nt}=1.30I_n$
Reference temperature	°C	40	30	30

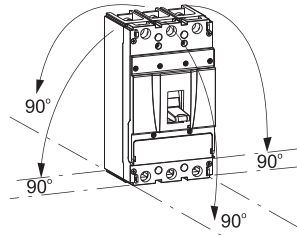
Notes:⁽¹⁾ not valid for BZMB2-S250

Molded Case Circuit Breaker (BZM Series)

Technical data BZM3

Mechanical specifications

			Rated current max. 400 A
			BZM3
Standards			IEC/EN 60947-2
Number of poles			3
Device width	mm	3-pole: 140	
Frame size	mm	95	
Socket size	mm	255	
Device depth	mm	110	
Terminals			
Terminal capacity ring tongue			
Terminal capacity Tunnel Terminal XKA1	mm ²	max. 350A	
Copper Cable/Aluminium cable:			1 x 16 - 185
Terminal capacity Tunnel Terminal XKA2	mm ²	max. 400A	
Copper Cable/Aluminium cable:			1 x 50 - 240 or 2 x 50 - 240
Busbar thickness	mm	as required	
Terminal screw			M10
Terminal torque	Nm	30	
Degree of Protection (DIN VDE 0470)			Built-in behind panel IP40
Climatic conditions			acc. to IEC 68-2 (25..55°C / 90..95% RH)
Ambient temperature			
Storage	°C	-35 ... + 85	
Operation	°C	-25 ... + 70	
Mounting Positions			Vertical and 90° in all directions



Protection System			
Enclosures			With insulating around: IP40
Number of mechanical operating cycles			> 5.000
Pollution degree			3
Electrical specifications			
Rated operational voltage	U_e	V AC	440, 50/60 Hz
Rated current	I_e	A	250, 320, 350, 400
Rated impulse withstand voltage	U_{imp}	V	8.000 (1.2/50 sec)
Overvoltage category			III
Rated insulation voltage	U_i	V	690
For use in IT electrical power networks			V 440
Direction of incoming supply			As required
Number of electrical operating cycles			> 1.000
Tripping characteristic			
Conventional non-tripping current			$I_{nt}=1.05I_n$
Conventional tripping current			$I_t=1.30I_n$
Reference temperature	°C	40	

Miniature Circuit Breaker (E6X Series)

New offer of Eaton power distribution LV components

1P



2P



3P



Eaton is now introducing new MCB series: E6X, which have optimized design to fit the application requirement of residential and commercial buildings, as well as OEM customers. They are designed with more advantages on safety, reliability and flexibility to fit different kinds of applications.

Features and advantages

- Contact position indicator red - green. Easy for customer to determine internal status, which makes the system more safety;
- Distinguished arc extinguishing mechanism, which can isolate your fault points reliably;
- Highly compatible with existing Eaton MCB offer, which make it easy for customers to do replacement and no need of much change on the system;
- Both top and bottom terminals can be the power or load side, without impact on breaking capability.

Specifications

E6X	
Maximum voltage ratings——IEC 60898	240/415Vac @ 50/60Hz
Current range	6 - 63 A
Tripping curves	B, C, D
Interrupt ratings (at max. voltage)	6 kA
Wiring direction	Both top and bottom side can be the power/load side
Pole configurations	1P, 2P, 3P
Width	18mm/P
Operating temperature range	-25 ~ +60°C
Degree of protection	IP20 (Before installation); IP40 (After installation into consumer unit)
Electrical lifespan	8000 operations 'ON+OFF'
Mechanical lifespan	15000 operations 'ON+OFF'
Terminal type	Wire or busbar, can't support 'wire + busbar' connection
Terminal wiring capacity	1 ~ 25mm ²
Recommended busbar	6 - 32A: 10mm ² ; 40 - 63A: 16mm ²
Maximum terminal torque	2.5N·m
Standard	IEC 60898-1 / GB10963.1

Miniature Circuit Breaker (E6X Series)

Product list

E6X, 6kA, B curve

Art. number	Part number	Part description
90000080100100	E6X-6/1/B	E6X 1P 6kA B 6A
90000080100101	E6X-10/1/B	E6X 1P 6kA B 10A
90000080100102	E6X-16/1/B	E6X 1P 6kA B 16A
90000080100103	E6X-20/1/B	E6X 1P 6kA B 20A
90000025000743	E6X-25/1/B	E6X 1P 6kA B 25A
90000025000744	E6X-32/1/B	E6X 1P 6kA B 32A
90000025000745	E6X-40/1/B	E6X 1P 6kA B 40A
90000025000746	E6X-50/1/B	E6X 1P 6kA B 50A
90000025000747	E6X-63/1/B	E6X 1P 6kA B 63A
90000025000757	E6X-6/2/B	E6X 2P 6kA B 6A
90000025000758	E6X-10/2/B	E6X 2P 6kA B 10A
90000025000759	E6X-16/2/B	E6X 2P 6kA B 16A
90000025000760	E6X-20/2/B	E6X 2P 6kA B 20A
90000025000761	E6X-25/2/B	E6X 2P 6kA B 25A
90000025000762	E6X-32/2/B	E6X 2P 6kA B 32A
90000025000763	E6X-40/2/B	E6X 2P 6kA B 40A
90000025000764	E6X-50/2/B	E6X 2P 6kA B 50A
90000025000765	E6X-63/2/B	E6X 2P 6kA B 63A
90000025000766	E6X-6/3/B	E6X 3P 6kA B 6A
90000025000767	E6X-10/3/B	E6X 3P 6kA B 10A
90000025000768	E6X-16/3/B	E6X 3P 6kA B 16A
90000025000769	E6X-20/3/B	E6X 3P 6kA B 20A
90000025000770	E6X-25/3/B	E6X 3P 6kA B 25A
90000025000771	E6X-32/3/B	E6X 3P 6kA B 32A
90000025000772	E6X-40/3/B	E6X 3P 6kA B 40A
90000025000773	E6X-50/3/B	E6X 3P 6kA B 50A
90000025000774	E6X-63/3/B	E6X 3P 6kA B 63A

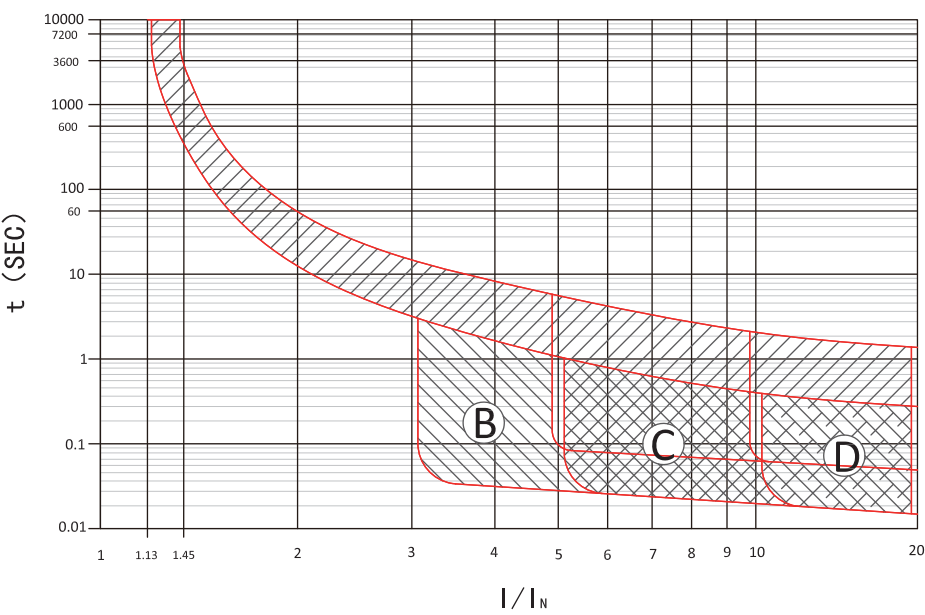
E6X, 6kA, C curve

Art. number	Part number	Part description
90000025000775	E6X-6/1/C	E6X 1P 6kA C 6A
90000025000776	E6X-10/1/C	E6X 1P 6kA C 10A
90000025000777	E6X-16/1/C	E6X 1P 6kA C 16A
90000025000778	E6X-20/1/C	E6X 1P 6kA C 20A
90000025000779	E6X-25/1/C	E6X 1P 6kA C 25A
90000025000780	E6X-32/1/C	E6X 1P 6kA C 32A
90000025000781	E6X-40/1/C	E6X 1P 6kA C 40A
90000025000782	E6X-50/1/C	E6X 1P 6kA C 50A
90000025000783	E6X-63/1/C	E6X 1P 6kA C 63A
90000025000793	E6X-6/2/C	E6X 2P 6kA C 6A
90000025000794	E6X-10/2/C	E6X 2P 6kA C 10A
90000025000795	E6X-16/2/C	E6X 2P 6kA C 16A
90000025000796	E6X-20/2/C	E6X 2P 6kA C 20A
90000025000797	E6X-25/2/C	E6X 2P 6kA C 25A
90000025000798	E6X-32/2/C	E6X 2P 6kA C 32A
90000025000799	E6X-40/2/C	E6X 2P 6kA C 40A
90000025000800	E6X-50/2/C	E6X 2P 6kA C 50A
90000025000801	E6X-63/2/C	E6X 2P 6kA C 63A
90000025000802	E6X-6/3/C	E6X 3P 6kA C 6A
90000025000803	E6X-10/3/C	E6X 3P 6kA C 10A
90000025000804	E6X-16/3/C	E6X 3P 6kA C 16A
90000025000805	E6X-20/3/C	E6X 3P 6kA C 20A
90000025000806	E6X-25/3/C	E6X 3P 6kA C 25A
90000025000807	E6X-32/3/C	E6X 3P 6kA C 32A
90000025000808	E6X-40/3/C	E6X 3P 6kA C 40A
90000025000809	E6X-50/3/C	E6X 3P 6kA C 50A
90000025000810	E6X-63/3/C	E6X 3P 6kA C 63A

E6X, 6kA, D curve

Art. number	Part number	Part description
90000025000811	E6X-6/1/D	E6X 1P 6kA D 6A
90000025000812	E6X-10/1/D	E6X 1P 6kA D 10A
90000025000813	E6X-16/1/D	E6X 1P 6kA D 16A
90000025000814	E6X-20/1/D	E6X 1P 6kA D 20A
90000025000815	E6X-25/1/D	E6X 1P 6kA D 25A
90000025000816	E6X-32/1/D	E6X 1P 6kA D 32A
90000025000817	E6X-40/1/D	E6X 1P 6kA D 40A
90000025000818	E6X-50/1/D	E6X 1P 6kA D 50A
90000025000819	E6X-63/1/D	E6X 1P 6kA D 63A
90000025000829	E6X-6/2/D	E6X 2P 6kA D 6A
90000025000830	E6X-10/2/D	E6X 2P 6kA D 10A
90000025000831	E6X-16/2/D	E6X 2P 6kA D 16A
90000025000832	E6X-20/2/D	E6X 2P 6kA D 20A
90000025000833	E6X-25/2/D	E6X 2P 6kA D 25A
90000025000834	E6X-32/2/D	E6X 2P 6kA D 32A
90000025000835	E6X-40/2/D	E6X 2P 6kA D 40A
90000025000836	E6X-50/2/D	E6X 2P 6kA D 50A
90000025000837	E6X-63/2/D	E6X 2P 6kA D 63A
90000025000838	E6X-6/3/D	E6X 3P 6kA D 6A
90000025000839	E6X-10/3/D	E6X 3P 6kA D 10A
90000025000840	E6X-16/3/D	E6X 3P 6kA D 16A
90000025000841	E6X-20/3/D	E6X 3P 6kA D 20A
90000025000842	E6X-25/3/D	E6X 3P 6kA D 25A
90000025000843	E6X-32/3/D	E6X 3P 6kA D 32A
90000025000844	E6X-40/3/D	E6X 3P 6kA D 40A
90000025000845	E6X-50/3/D	E6X 3P 6kA D 50A
90000025000846	E6X-63/3/D	E6X 3P 6kA D 63A

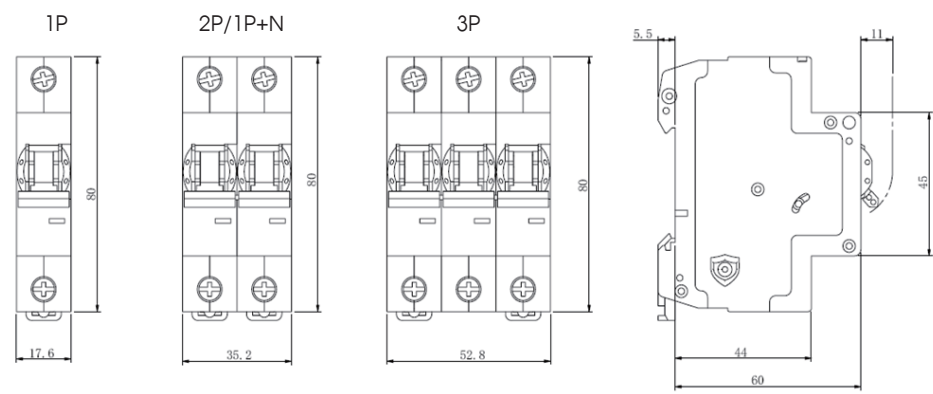
Tripping characteristic



Influence of ambient temperature

I _n (A)	Temperature (°C)									
	-25	-20	-10	0	10	20	30	35	40	60
6	10.12	9.77	9.03	8.26	7.49	6.75	6	5.59	5.19	4.62
10	17.41	16.75	15.41	14.04	12.71	11.35	10	9.09	8.21	8.7
16	21.72	21.15	20.15	19.12	18.08	17.04	16	15.49	15.1	13.52
20	25.86	25.79	24.61	23.47	22.32	21.16	20	19.43	18.83	17.1
25	32.41	31.74	30.37	28.98	27.69	26.35	25	24.33	23.65	24.7
32	44.83	43.62	41.29	38.96	36.67	34.33	32	30.83	29.67	30.8
40	50.34	49.35	47.51	45.62	43.73	41.87	40	39.04	38.11	36.2
50	63.79	62.48	59.99	57.48	54.98	52.5	50	48.76	47.48	47.5
63	80	78.46	75.38	72.28	69.17	66.09	63	61.46	59.93	53.8

Dimensions (unit: mm)



Motor Control & Protection (D-Line Series)

Control relays XTRD

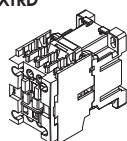
Product Description

- Varied 4-pole contact configurations
- Conventional thermal current (I_{th}) of 10A
- DIN-rail or panel mount

Standards and Certifications

- IEC/EN 60947
- CE

XTRD

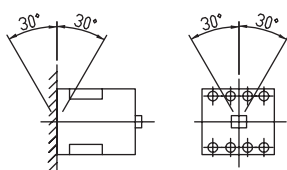


Control relays

Connection type	Contact N/O=Normally open N/C=Normally closed		Rated operational current AC-15 I _e (A)		Conventional thermal current, open, 55°C I _{th} (A)	Circuit symbol	Can be combined with auxiliary contact module	AC operation Part no.	Standard package
			220V	380 V				Article no. Actuating voltage 220V 50/60HZ	
Screw terminals	4 N/O	-	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B40AO 152304	1 piece
Screw terminals	3 N/O	1 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B31AO 152297	1 piece
Screw terminals	2 N/O	2 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B22AO 152290	1 piece
Screw terminals	1 N/O	3 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B13AO 152283	1 piece
Screw terminals	-	4 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B04AO 151736	1 piece

Technical data

General

			XTRD	XTCDXFAG	XTCDXSAG
Standards			IEC/EN 60947, GB 14048		
Mechanical lifespan					
AC operated	Operations	x 10 ⁶	5	5	5
Maximum operating frequency					
Maximum operating frequency	Operations/h		1200	1200	1200
Climatic Proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature					
Operation		°C	-20~55	-20~55	-20~55
Storage		°C	-40~80	-40~80	-40~80
Mounting position			Have the angle of 30° with normal vertical installation plane		
					
Protection type			IP20	IP20	IP20
Weight Approximate weight		kg	0.3	0.3	0.3
Terminal capacity					
Solid	mm ²		1 x (1-6)	1 x (1-6)	1 x (1-6)
			2 x (1-6)	2 x (1-6)	2 x (1-6)
Flexible with ferrule	mm ²		1 x (1-4)	1 x (1-4)	1 x (1-4)
			2 x (1-4)	2 x (1-4)	2 x (1-4)
Solid or stranded		AWG			
Terminal screw			M3.5	M3.5	M3.5
Max tightening torque			Nm	0.8	0.8

Contacts

			XTRD	XTCDXFAG	XTCDXSAG
Rated impulse withstand voltage	U _{imp}	VAC	6000	6000	6000
Overvoltage category/degree of pollution			III/3	III/3	III/3
Rated insulation voltage	U _i	VAC	1000	690	690
Rated operational voltage	U _e	VAC	690	600	600
Rated operational current					
AC-15					
120V	I _e	A	6	6	6
220/240V	I _e	A	3	3	3
380V	I _e	A	1.9	1.9	1.9
480V	I _e	A	1.5	1.5	1.5
500V	I _e	A	1.4	1.4	1.4
600V	I _e	A	1.2	1.2	1.2
DC-13					
125V	I _e	A	0.55	0.55	0.55
250V	I _e	A	0.27	0.27	0.27
Conventional thermal current	I _{th}	A	10	10	10
Electrical lifespan					
at U _e =230V, AC-15, 3A	Operations	x 10 ⁶	1	1	1

Magnet system

			XTRD	XTCDXFAG	XTCDXSAG
Voltage tolerance					
AC operated	Pick-up	x U _c	0.75-1.1	0.75-1.1	0.75-1.1
Power consumption	Pick-up	VA	70	70	70
	Sealing	VA	12	12	12
	Sealing	W	3.5	3.5	3.5
Duty factor		% DF	40	40	40

Motor Control & Protection (D-Line Series)

Contactors XTCD

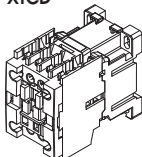
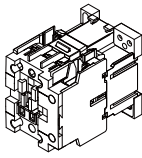
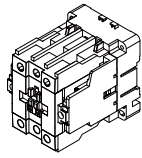
Product Description

- 6 frame sizes with current ranges from 7-85A@ AC-3,400V
- Built-in auxiliary contacts on all frames
- Add-on auxiliary contacts for all frames
- Wide range of control voltages from 24-440V in dual frequency 50/60Hz
- Wide selection of accessories for all frames

Standards and Certifications

- IEC/EN 60947
- CE

3-pole contactors

XTCD	Can be combined with auxiliary contact module	Connection type	Rated operational current AC-3 I _e (A) 380V 400V	Max motor rating for 3-phase motors, 50-60Hz AC-3 P kW			Conventional thermal current, open, 55 C I _{th} = I _e AC-1(A)	Contact N/O=Normally open N/C=Normal closed		Circuit symbol	AC operation Part no. Article no. Actuating voltage 220V 50/60Hz
				220V 230V	380V 400V	660V 690V					
	XTCDXFAG20	Screw terminals	7	2.2	3	3.5	25	1 N/O	-		XTCD007B10AO 152318
	XTCDXFAG11	Screw terminals	7	2.2	3	3.5	25		1 N/C		XTCD007B01AO 152311
	XTCDXFAG02	Screw terminals	9	2.5	4	4.5	25	1 N/O	-		XTCD009B10AO 152332
	XTCDXFAG31	Screw terminals	9	2.5	4	4.5	25		1 N/C		XTCD009B01AO 152325
	XTCDXFAG13	Screw terminals	12	3	5.5	5.5	25	1 N/O	-		XTCD012B10AO 152346
	XTCDXFAG04	Screw terminals	12	3	5.5	5.5	25		1 N/C		XTCD012B01AO 152339
	XTCDXSAG11	Screw terminals	16	4	7.5	7.5	25	1 N/O	-		XTCD016B10AO 152360
		Screw terminals	16	4	7.5	7.5	25		1 N/C		XTCD016B01AO 152353
		Screw terminals	22	5.5	11	11	32	1 N/O	1 N/C		XTCD022C11AO 152367
		Screw terminals	26	7.5	11	11	35	1 N/O	1 N/C		XTCD026C11AO 152374
		Screw terminals	32	7.5	15	18.5	50	1 N/O	1 N/C		XTCD032D11AO 152381
		Screw terminals	38	11	18.5	22	60	1 N/O	1 N/C		XTCD038E11AO 152388
		Screw terminals	40	11	20	22	60	2 N/O	1 N/C		XTCD040F11AO 152395
		Screw terminals	55	15	25	30	70	2 N/O	1 N/C		XTCD055G22AO 152402
		Screw terminals	64	18.5	30	37	80	2 N/O	2 N/C		XTCD065G22AO 152409
		Screw terminals	72	22	37	45	100	2 N/O	2 N/C		XTCD072G22AO 152416
		Screw terminals	85	25	45	45	135	1 N/O	2 N/C		XTCD085G22AO 152423
											

Standard package: 1piece

Auxiliary contact modules

	Connection type		Conventional thermal current open, 55C $I_{th} = I_e$ AC-1 A	Contact N/O=Normally open N/C=Normal closed		Circuit symbol	Can be combined with control relay	Part no. Article no.	Standard package
Auxiliary contact, top mounting 	Screw terminals	2 pole	10	2 N/O -			XTRD10B..	XTCDXFAG20 90000040152605	1 piece
	Screw terminals	2 pole	10	1 N/O 1 N/C			XTRD10B..	XTCDXFAG11 90000040152606	1 piece
	Screw terminals	2 pole	10	- 2 N/C			XTRD10B..	XTCDXFAG02 90000040152607	1 piece
	Screw terminals	4 pole	10	4 N/O -			XTRD10B..	XTCDXFAG40 90000040152608	1 piece
	Screw terminals	4 pole	10	3 N/O 1 N/C			XTRD10B..	XTCDXFAG31 90000040152609	1 piece
	Screw terminals	4 pole	10	2 N/O 2 N/C			XTRD10B..	XTCDXFAG22 90000040152610	1 piece
	Screw terminals	4 pole	10	1 N/O 3 N/C			XTRD10B..	XTCDXFAG13 90000040152611	1 piece
	Screw terminals	4 pole	10	- 4 N/C			XTRD10B..	XTCDXFAG04 90000040152612	1 piece
Auxiliary contact, side mounting 	Screw terminals	2 pole	10	1 N/O 1 N/C			XTRD10B..	XTCDXSAG11 90000040152613	1 piece

Technical data of auxiliary contact modules

Auxiliary contact

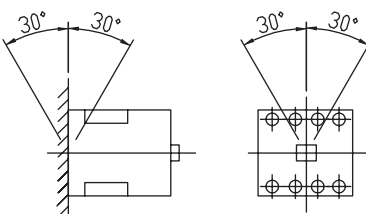
			XTCDXFAG	XTCDXSAG
Rated impulse withstand voltage	U_{imp}	VAC	6000	6000
Overvoltage category/degree of pollution			III/3	III/3
Rated insulation voltage	U_i	VAC	690	690
Rated operational voltage	U_e	VAC	600	600
Rated operational current				
AC-15				
120V	I_e	A	6	6
220/240V	I_e	A	3	3
380V	I_e	A	1.9	1.9
480V	I_e	A	1.5	1.5
500V	I_e	A	1.4	1.4
600V	I_e	A	1.2	1.2
DC-13				
125V	I_e	A	0.55	0.55
250V	I_e	A	0.27	0.27
Conventional thermal current	I_{th}	A	10	10
Electrical lifespan				
at $U_e=230V$, AC-15, 3A	Operations	x 10 ₆	1	1

Motor Control & Protection (D-Line Series)

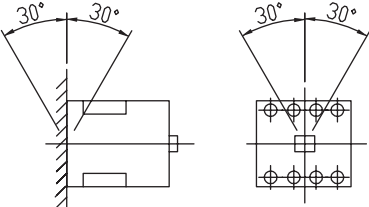
Contactors XTCD

Technical data

General

XT Basic device			CD007	CD009	CD012	CD016	CD022
Standards			IEC/EN 60947, GB 14048				
Lifespan, mechanical							
AC operated	Operations	x 10 ⁶	5	5	5	5	5
Operating frequency, mechanical							
AC operated	Operations/h		1200	1200	1200	1200	1200
Climatic Proofing			Damp heat,constant,to IEC60068-2-78 Damp heat,cyclic,to IEC60068-2-30				
Ambient temperature							
Operation		°C	-20~55	-20~55	-20~55	-20~55	-20~55
Storage		°C	-40~80	-40~80	-40~80	-40~80	-40~80
Mounting position			Have the angle of 30° with normal vertical installation plane				
							
Protection type			IP20	IP20	IP20	IP20	IP20
Weight			kg	0.3	0.3	0.3	0.4
Terminal capacity of main cable							
Solid	mm ²		1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (2.5-10) 2 x (2.5-10)
Flexible with ferrule	mm ²		1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (2.5-6) 2 x (2.5-6)
Solid/stranded	AWG						
Terminal capacity of control circuit cable			mm ²	1	1	1	1
Main cable connection screws / bolts			M3.5	M3.5	M3.5	M3.5	M4
Tightening torque			Nm	0.8	0.8	0.8	1.2
Control circuit cable connection screws / bolts			M3.5	M3.5	M3.5	M3.5	M3.5
Tightening torque			Nm	0.8	0.8	0.8	0.8
Main contacts							
Rated impulse withstand voltage		U _{imp} V AC	6000	6000	6000	6000	6000
Overvoltage category / pollution degree			I/3	III/3	III/3	III/3	III/3
Rated insulation voltage		U _i	1000	1000	1000	1000	1000
Rated operational voltage		U _e	690	690	690	690	690
Making capacity		A to 690 V	60	60	70	100	140
(cosφ to IEC/EN60947)							
Breaking capacity (cosφ to IEC/EN60947)	220V/230V	A	92	92	96	128	184
	380V/400V	A	88	88	96	128	176
	500V	A	64	64	72	104	152
	660V/690V	A	48	48	56	80	112
Electrical lifespan							
I _e AC-3 400V		x 10 ₆ Op.	1	1	1	1	1
Maximum operating frequency							
I _e AC-3 400V		Op./h	1200	1200	1200	1200	1200

Technical data

CD026	CD032	CD038	CD040	CD055	CD065	CD072	CD085
IEC/EN 60947, GB 14048							
5	5	5	5	5	5	5	5
1200	1200	1200	1200	1200	1200	1200	1200
Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30							
-20~55	-20~55	-20~55	-20~55	-20~55	-20~55	-20~55	-20~55
-40~80	-40~80	-40~80	-40~80	-40~80	-40~80	-40~80	-40~80
							
IP20	IP20	IP20	IP20	IP20	IP20	IP00	IP00
0.4	0.7	0.7	0.9	1.3	1.3	1.3	1.3
1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-16) 2 x (2.5-16)	1 x (2.5-16) 2 x (2.5-16)	1 x (4-16) 2 x (4-16)	1 x (10-50) 2 x (10-50)	1 x (10-50) 2 x (10-50)	1 x (10-50) 2 x (10-50)	1 x (10-50) 2 x (10-50)
1 x (2.5-6) 2 x (2.5-6)	1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-10) 2 x (2.5-10)	1 x (6-35) 2 x (6-35)	1 x (6-35) 2 x (6-35)	1 x (6-35) 2 x (6-35)	1 x (6-35) 2 x (6-35)
1	1	1	1	1	1	1	1
M4	M5	M5	M5	M6	M6	M6	M6
1.2	2.0	2.0	2.0	3.0	3.0	3.0	3.0
M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M.5
0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
6000	6000	6000	6000	6000	6000	6000	6000
III/3	III/3	I/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000
690	690	690	690	690	690	690	690
140	220	242	260	350	450	600	650
216	280	312	352	440	520	600	680
208	256	304	320	440	512	576	680
152	240	264	280	360	440	520	640
112	176	176	208	280	360	480	520
1	1	1	1	1	1	1	1
1200	1200	1200	1200	1200	1200	1200	1200

Motor Control & Protection (D-Line Series)

Contactors XTCD

Technical data

AC voltage

XT Basic device				CD007	CD009	CD012	CD016	CD022
AC-1 operation								
Conventional thermal current, open, 50-60 Hz, 3 pole	at 40 °C	I _{th}	A	25	25	25	25	35
	at 50 °C	I _{th}	A	25	25	25	25	32
	at 55 °C	I _{th}	A	25	25	25	25	32
AC-3 operation								
Rated operational current, open, 50-60 Hz, 3 pole	220/230V	I _e	A	7	9	12	16	23
	380/400V	I_e	A	7	9	12	16	22
	415V	I _e	A	7	9	11	15	21
	440V	I _e	A	7	9	11	15	21
	500V	I _e	A	7	8	9	13	19
	660/690V	I _e	A	4	5	7	10	14
Rated operational power	220/230V	P	kW	2.2	2.5	3	4	5.5
	380/400V	P	kW	3	4	5.5	7.5	11
	415V	P	kW	3	4	5.5	7.5	11
	440V	P	kW	3	4	5.5	7.5	11
	500V	P	kW	3	4	5.5	7.5	11
	660/690V	P	kW	3.5	4.5	5.5	7.5	11
Magnet systems								
Voltage tolerance								
AC operated	Pick-up	x U _c		0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1
Power consumption of coil in a cold state and 1.0 xU_c								
	Pick-up	VA		70	70	70	70	70
	Sealing	VA		12	12	12	12	12
	Sealing	W		3.5	3.5	3.5	3.5	3.5
Duty factor		%DF		40	40	40	40	40

Technical data

CD026	CD032	CD038	CD03840	CD055	CD065	CD072	CD085
40	60	60	60	70	80	100	135
35	50	60	60	70	80	100	135
35	50	60	60	70	80	100	135
27	32	39	42	55	65	75	85
26	32	38	40	55	64	72	85
21	32	38	40	52	64	72	85
21	32	38	40	52	64	70	85
19	30	33	35	45	55	65	80
14	22	24	26	35	45	60	65
7.5	7.5	11	11	15	18.5	22	25
11	15	18.5	20	25	30	37	45
11	15	22	22	25	33	40	45
11	15	22	22	30	37	40	51
11	18.5	22	22	30	37	45	55
11	18.5	22	22	30	37	45	55
0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1	0.75-1.1
70	70	215	215	280	280	280	280
12	12	27	27	32	32	32	32
3.5	3.5	6	6	6	6	6	6
40	40	40	40	40	40	40	40

Motor Control & Protection (D-Line Series)

Thermal overload relays XTOD

Product Description

- 5 frames with current ranges up to 85A
- 1NO & 1NC auxiliary contact as standard
- Phase-loss protection available
- Selectable auto/manual reset
- Direct or panel mount

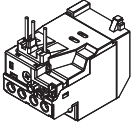
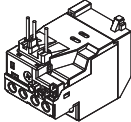
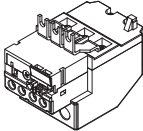
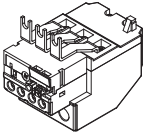
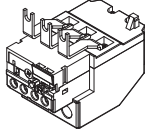
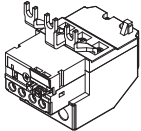
Standards and Certifications

- IEC/EN 60947
- CE

System overview

Thermal overload relays

Setting range(A)
(Note the maximum current of contactor)

	XTCD007-016	XTCD022-026 XTCD032	XTCD038	XTCD040	XTCD055-085
XTOD..CC1 0.3-30					
XTOD..DC1 17-32					
XTOD..EC1 17-40					
XTOD..FC1 17-40					
XTOD..GC1 17-97					

Motor Control & Protection (D-Line Series)

Thermal overload relays XTOD

Thermal overload relays

For use with

Setting range
of overload
releases I_r (A)

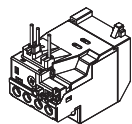
Circuit
symbol

Auxiliary
contact

Part no.
Article no.

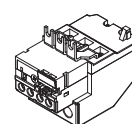
Standard
package

XTOD..CC1



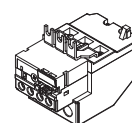
XTCD007	Direct mounting	0.3~0.45		1 N/O	1 N/C	XTODP45CC1 152479	1 piece
XTCD009	Direct mounting	0.45 ~0.67		1 N/O	1 N/C	XTODP67CC1 152480	1 piece
XTCD012	Direct mounting	0.67~1.0		1 N/O	1 N/C	XTOD001CC1 152481	1 piece
XTCD016	Direct mounting	1.0 ~1.5		1 N/O	1 N/C	XTOD1P5CC1 152482	1 piece
XTCD022	Direct mounting	1.4 ~2.1		1 N/O	1 N/C	XTOD2P2CC1 152483	1 piece
XTCD026	Direct mounting	1.8~2.7		1 N/O	1 N/C	XTOD2P7CC1 152484	1 piece
XTCD032	Direct mounting	2.4~3.6		1 N/O	1 N/C	XTOD3P6CC1 152485	1 piece
	Direct mounting	3.5~5.0		1 N/O	1 N/C	XTOD005CC1 152486	1 piece
	Direct mounting	4.0~6.0		1 N/O	1 N/C	XTOD006CC1 152487	1 piece
	Direct mounting	5.5~8.5		1 N/O	1 N/C	XTOD8P5CC1 152488	1 piece
	Direct mounting	8.5~12.5		1 N/O	1 N/C	XTOD013CC1 152489	1 piece
	Direct mounting	12.5~18		1 N/O	1 N/C	XTOD018CC1 152490	1 piece
	Direct mounting	17~24		1 N/O	1 N/C	XTOD024CC1 152491	1 piece
	Direct mounting	22~30		1 N/O	1 N/C	XTOD030CC1 152492	1 piece

XTOD..DC1



XTCD022	Direct mounting	17~25		1 N/O	1 N/C	XTOD025DC1 152493	1 piece
XTCD026	Direct mounting	23~32		1 N/O	1 N/C	XTOD032DC1 152494	1 piece

XTOD..EC1



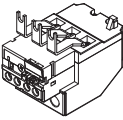
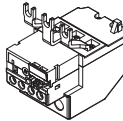
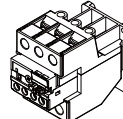
XTCD038	Direct mounting	17~25		1 N/O	1 N/C	XTOD025EC1 152495	1 piece
XTCD038	Direct mounting	23~32		1 N/O	1 N/C	XTOD032EC1 152496	1 piece
XTCD038	Direct mounting	30~40		1 N/O	1 N/C	XTOD040EC1 152497	1 piece

Overload release: tripping class 10A

Motor Control & Protection (D-Line Series)

Thermal overload relays XTOD

Thermal overload relays

For use with			Setting range of overload releases I _r (A)	Circuit symbol	Auxiliary contact		Part no. Article no.	Standard package
					N/O =Normally open N/C =Normally closed			
XTOD..FC1 	XTCD040	Direct mounting	17~25		1 N/O	1 N/C	XTOD025FC1 152498	1 piece
		Direct mounting	23~32		1 N/O	1 N/C	XTOD032FC1 152499	1 piece
		Direct mounting	30~40		1 N/O	1 N/C	XTOD040FC1 152500	1 piece
XTOD..GC1 	XTCD055	Direct mounting	17~25		1 N/O	1 N/C	XTOD025GC1 152501	1 piece
	XTCD065	Direct mounting	23~32		1 N/O	1 N/C	XTOD032GC1 152502	1 piece
	XTCD072		30~40		1 N/O	1 N/C	XTOD040GC1 152503	1 piece
	XTCD085	Direct mounting	37~50		1 N/O	1 N/C	XTOD050GC1 152504	1 piece
		Direct mounting	48~65		1 N/O	1 N/C	XTOD065GC1 152505	1 piece
		Direct mounting	63~80		1 N/O	1 N/C	XTOD080GC1 152506	1 piece
		Direct mounting	77~97		1 N/O	1 N/C	XTOD097GC1 152507	1 piece
XTOD..GC1S 	XTCD025	Direct mounting	17~25		1 N/O	1 N/C	XTOD025GC1S 152508	1 piece
	XTCD032	Direct mounting	23~32		1 N/O	1 N/C	XTOD032GC1S 152509	1 piece
	XTCD038		30~40		1 N/O	1 N/C	XTOD040GC1S 152510	1 piece
	XTCD055	Direct mounting	37~50		1 N/O	1 N/C	XTOD050GC1S 152511	1 piece
	XTCD065	Direct mounting	48~65		1 N/O	1 N/C	XTOD065GC1S 152512	1 piece
	XTCD072		63~80		1 N/O	1 N/C	XTOD080GC1S 152513	1 piece
	XTCD085	Direct mounting	77~97		1 N/O	1 N/C	XTOD097GC1S 152514	1 piece

Overload release: tripping class 10A

Technical data

General

General		XTOD..CC1	XTOD..DC1	XTOD..EC1	XTOD..FC1	XTOD..GC1
Standards		IEC/EN 60947, GB 14048				
Climatic Proofing		Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30				
Ambient temperature						
Open	°C	-25~55	-25~55	-25~55	-25~55	-25~55
Enclosed	°C	-25~40	-25~40	-25~40	-25~40	-25~40
Temperature compensation	°C	-5~40	-5~40	-5~40	-5~40	-5~40
Mounting position		→ 33	→ 33	→ 33	→ 33	→ 33
Weight	kg	0.15	0.15	0.25	1.64	1.64
Protection type		IP20	IP20	IP00	IP00	IP00

Main contacts

			XTOD..CC1	XTOD..DC1	XTOD..EC1	XTOD..FC1	XTOD..GC1
Rated impulse withstand voltage	U _{imp}	VAC	6000	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Rated insulation voltage							
AC	U _i	VAC	690	690	690	690	690
Rated operational voltage	U _e	VAC	600	600	600	600	600
Overload release setting range		A	0.3-30	17-32	17-40	17-40	17-97
Terminal capacity							
Solid		mm ²	1 x (1-6) 2 x (1-6)	1 x (2.5-16) 2 x (2.5-16)	1 x (2.5-16) 2 x (2.5-16)	1 x (2.5-16) 2 x (2.5-16)	1 x (2.5-16) 2 x (2.5-16)
Flexible with ferrule		mm ²	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)
Solid/stranded		AWG					
Terminal screw			M4	M5	M5	M5	M5
Tightening torque		Nm	1.2	2.5	2.5	2.5	2.5

Auxiliary and control circuits

			XTOD..CC1	XTOD..DC1	XTOD..EC1	XTOD..FC1	XTOD..GC1
Rated impulse withstand voltage	U _{imp}	V	6000	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Terminal capacity							
Solid		mm ²	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)
Flexible with ferrule		mm ²	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)
Solid/stranded		AWG					
Terminal screw			M3.5	M3.5	M3.5	M3.5	M3.5
Tightening torque		Nm	0.8	0.8	0.8	0.8	0.8
Rated insulation voltage	U _i	VAC	690	690	690	690	690
Rated operational voltage	U _e	VAC	600	600	600	600	600
Conventional thermal current	I _{th}	A	10	10	10	10	10
Rated operational current							
AC-15							
120V	I _e	A	6	6	6	6	6
220/240V	I _e	A	3	3	3	3	3
380V	I _e	A	1.9	1.9	1.9	1.9	1.9
480V	I _e	A	1.5	1.5	1.5	1.5	1.5
500V	I _e	A	1.4	1.4	1.4	1.4	1.4
600V	I _e	A	1.2	1.2	1.2	1.2	1.2
DC-13							
125V	I _e	A	0.55	0.55	0.55	0.55	0.55
250V	I _e	A	0.27	0.27	0.27	0.27	0.27



Eaton is a power management company with 2018 sales of \$21.6 billion. We provide energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. Eaton is dedicated to improving the quality of life and the environment through the use of power management technologies and services. Eaton has approximately 99,000 employees and sells products to customers in more than 175 countries.

For more information, please visit www.eaton.com

Contact us

SINGAPORE REGIONAL OFFICE

100G Pasir Panjang Road
Interlocal Center #07-08
118523 Singapore
T +65 6825 1668
E : EatonSEA@Eaton.com

PHILIPPINES

29 F Ayala Life F&G Center,
Ayala Ave., Makati City
Philippines, 1200
T +63 2 812 3045
E : EatonSEA@Eaton.com

VIETNAM

Hanoi Office
6th Geleximco Building,
36 Hoang Cau, Dong Da,
Ha Noi, Vietnam
T +84 439 365 303

MALAYSIA

B-29-3A, Block B, Jaya One,
No. 72A, Jalan University,
46200 Petaling Jaya,
Selangor Darul Ehsan, Malaysia
T +603 7955 3399
E : EatonSEA@Eaton.com

INDONESIA

Menara Bidakara 2, 12th Fl
Jl. Jend. Gatot Subroto Kav. 71-73
Jakarta 12870, Indonesia
T +62 21 2949 9000
E : EatonSEA@Eaton.com

THAILAND

Menara Bidakara 2, 12th Fl
Jl. Jend. Gatot Subroto Kav. 71-73
Jakarta 12870, Indonesia
T +62 21 2949 9000
E : EatonSEA@Eaton.com

TAIWAN

114, XiWan Rd., Sec. 2, New Taipei City,
22179 Taiwan, R.O.C.
T +886 2 6600 6688
E : EatonSEA@Eaton.com

JAPAN

Shin-Osaka Daiichiseimei Bldg. 8FL
3-5-24, Miyahara Yodogawa-ku,
Osaka, Japan 532 0003
T +81 (0) 6 6150 1281
E : InfoJapan@Eaton.com

SOUTH KOREA

Eonju-ro, Gangnam-gu, Seoul 712
Jin Building Seoul, Korea
T +82 (0)2-3446-2834
E : EatonSEA@Eaton.com