## DATASHEET - PBSM-402/003-A-MW



Residual-current circuit breaker trip block for PLS. 40A, 2 p, 30mA, type A



PBSM-402/003-A-MW Powering Business Worldwide

Switchgear for residential and commercial applications

Catalog No. 262328

EL-Nummer (Norway)

Part no.

0001609393

Similar to illustration

Application
Rated current

Delivery program	
Basic function	Add-on residual current protection unit
Number of poles	2 pole

Α

Rated short-circuit strength I<sub>cn</sub> kA same as connected PLS up to max. 10

Rated fault current I<sub>ΔN</sub> A 0.03

Type Type A

Tripping s... non-delayed

Product range PBSM

Sensitivity Pulse-current sensitive

Impulse withstand current Partly surge-proof 250 A

## **Technical data**

### **Electrical**

Rated frequency	f	Hz	50
Sensitivity			Pulse-current sensitive
Rated current	In	Α	40
Rated impulse withstand voltage	$U_{\text{imp}}$	kV	4
lifespan			
Electrical	Operations		≧ 4000
Mechanical	Operations		≧ 20000

#### Mechanica

Thickness of busbar material	mm	0.8 - 2
Terminal protection		BGV A3, ÖVE-EN 6
Terminals top and bottom		Lift terminals
Degree of Protection		IP20, IP40 with suitable enclosure
Mounting		fix mounted onto PLS
Built-in width	mm	35 (2TE)
Device height	mm	90
Standard front dimension	mm	45
Mechanical Standard front dimension	mm	45

# Design verification as per IEC/EN 61439

The state of the s			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	40
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	$P_{\text{vid}}$	W	13
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
			Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
IEC/EN 61439 design verification			

0.2 Strength of materials and parts	
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton we provide heat dissipation data for the devices.
0.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear muobserved.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear mu observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## **Technical data ETIM 7.0**

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

Number of poles         2           Rated voltage         V         230           Rated current         A         40           Rated fault current         mA         30           Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Mounting method         Image: Current type         A           Selective protection         Image: Current type         No           Short-time delayed tripping         No         No           Short-circuit breaking capacity (lcw)         KA         0           Surge current capacity         KA         0.25           Frequency         KA         0.25           Additional equipment possible         Yes           With interlocking device         Yes           Degree of protection (IP)         Ip20			
Rated current Rated fault current Rated insulation voltage Ui Rated insulation voltage Ui Rated insulation voltage Uimp  Mounting method Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Short-circuit breaking capacity (Icw) Rated insulation voltage Uimp  KV 4  DIN rail No Short-circuit breaking capacity (Icw) No Short-circuit breaking capacity (Icw) KA 0.25  Frequency Additional equipment possible With interlocking device Ves Urge current capacity Rate No Surge Su	Number of poles		2
Rated fault current Rated insulation voltage Ui Rated inpulse withstand voltage Uimp  Mounting method Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP)  mA 30 440 440 440  Ad  A  C  DIN rail No  No  No  No  Sobott-circuit delayed tripping No  No  Short-circuit breaking capacity (Icw) Ad  AD  Explain to the protection of the	Rated voltage	V	230
Rated insulation voltage Ui Rated impulse withstand voltage Uimp  Mounting method Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP)  V 440  440  A  0 DIN rail No  No  No  No  No  No  Short-circuit breaking capacity (Icw) AA  0 25  Frequency Frequency Yes  Vith interlocking device Degree of protection (IP)  I 200	Rated current	А	40
Rated impulse withstand voltage Uimp  Mounting method  Leakage current type  Selective protection  Short-time delayed tripping  No  Short-circuit breaking capacity (Icw)  Surge current capacity  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  RV  4  A  A  A  A  A  A  A  DIN rail  No  No  No  No  No  Short-circuit breaking capacity (Icw)  KA  0  Surge current capacity  Frequency  Yes  Vies  Degree of protection (IP)	Rated fault current	mA	30
Mounting method Leakage current type A Selective protection Short-time delayed tripping No Short-circuit breaking capacity (Icw) KA Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP)  DIN rail A  A  A  DIN rail No  No  No  No  No  No  No  EA  0  50  HZ  798  Pes  Pes  Pes  Pes  Pes  Pes  Pes  Pe	Rated insulation voltage Ui	V	440
Leakage current type  Selective protection  Short-time delayed tripping  No  Short-circuit breaking capacity (Icw)  No  Surge current capacity  KA  0.25  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  A  A  A  A  D  Degree of protection (IP)	Rated impulse withstand voltage Uimp	kV	4
Selective protection  Short-time delayed tripping  No  Short-circuit breaking capacity (Icw)  Surge current capacity  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  No  No  No  No  No  No  No  No  No  N	Mounting method		DIN rail
Short-time delayed tripping  No Short-circuit breaking capacity (Icw)  Surge current capacity  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  No  No  No  No  No  No  No  No  No  N	Leakage current type		A
Short-circuit breaking capacity (Icw)  Surge current capacity  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  kA  0.25  50 Hz  50 Hz  Yes  IP20	Selective protection		No
Surge current capacity  kA 0.25  Frequency  50 Hz  Additional equipment possible  Ves  With interlocking device  Degree of protection (IP)  kA 0.25  Yes  IP20	Short-time delayed tripping		No
Frequency 50 Hz Additional equipment possible Yes With interlocking device Yes Degree of protection (IP) IP20	Short-circuit breaking capacity (Icw)	kA	0
Additional equipment possible  Yes  With interlocking device  Degree of protection (IP)  IP20	Surge current capacity	kA	0.25
With interlocking device Yes  Degree of protection (IP) IP20	Frequency		50 Hz
Degree of protection (IP)	Additional equipment possible		Yes
	With interlocking device		Yes
	Degree of protection (IP)		IP20
Width in number of modular spacings 4	Width in number of modular spacings		4
Built-in depth mm 70	Built-in depth	mm	70
Ambient temperature during operating °C -25 - 40	Ambient temperature during operating	°C	-25 - 40
Pollution degree 2	Pollution degree		2
Connectable conductor cross section multi-wired mm <sup>2</sup> 0.75 - 35	Connectable conductor cross section multi-wired	mm²	0.75 - 35
Connectable conductor cross section solid-core mm <sup>2</sup> 0.75 - 35	Connectable conductor cross section solid-core	mm²	0.75 - 35