



**Residual-current circuit breaker trip block for PLHT, 80A, 4 p, 500mA, type AC**



**Part no.** PBHT-80/4/05  
**Catalog No.** 248831

Similar to illustration

**Delivery program**

Basic function			Add-on residual current protection unit
Number of poles			4 pole
Application			For commercial and industry applications
Rated current	$I_n$	A	80
Rated short-circuit strength	$I_{cn}$	kA	same as connected PLHT
Rated fault current	$I_{\Delta N}$	A	0.5
Type			Type AC
Tripping		s...	non-delayed
Product range			PBHT
Sensitivity			AC current sensitive
Impulse withstand current			Partly surge-proof 250 A

**Technical data**

**Electrical**

Rated frequency	f	Hz	50
Sensitivity			AC current sensitive
Rated current	$I_n$	A	80
Rated impulse withstand voltage	$U_{imp}$	kV	4
lifespan			
Electrical	Operations		$\geq 1500$
Mechanical	Operations		$\geq 10000$

**Mechanical**

Standard front dimension		mm	45
Device height		mm	90
Built-in width		mm	95 (5.5TE)
Mounting			screwed onto PLHT
Degree of Protection			IP40, IP54 (with moisture-proof enclosure)
Terminals top and bottom			Lift terminals
Terminal protection			DGUV VS3, EN 50274
Permissible storage and transport temperatures		°C	-35 - +60
Climatic proofing			25-55°C/90-95% relative humidity according to IEC 60068-2

**Design verification as per IEC/EN 61439**

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	80
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0
Equipment heat dissipation, current-dependent	$P_{vid}$	W	7
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	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			
10.2 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 will provide heat dissipation data for the devices.
10.11 Short-circuit rating		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility. The specifications for the switchgear must be 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) (ecI@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles			4
Rated voltage	V		400
Rated current	A		80
Rated fault current	mA		500
Rated insulation voltage $U_i$	V		440
Rated impulse withstand voltage $U_{imp}$	kV		4
Mounting method			DIN rail
Leakage current type			AC
Selective protection			No
Short-time delayed tripping			No
Short-circuit breaking capacity ( $I_{cw}$ )	kA		0
Surge current capacity	kA		0.25
Frequency			50 Hz
Additional equipment possible			Yes
With interlocking device			Yes
Degree of protection (IP)			IP20
Width in number of modular spacings			5.5
Built-in depth	mm		70
Ambient temperature during operating	°C		-25 - 40
Pollution degree			2
Connectable conductor cross section multi-wired	mm <sup>2</sup>		2.5 - 50
Connectable conductor cross section solid-core	mm <sup>2</sup>		2.5 - 50