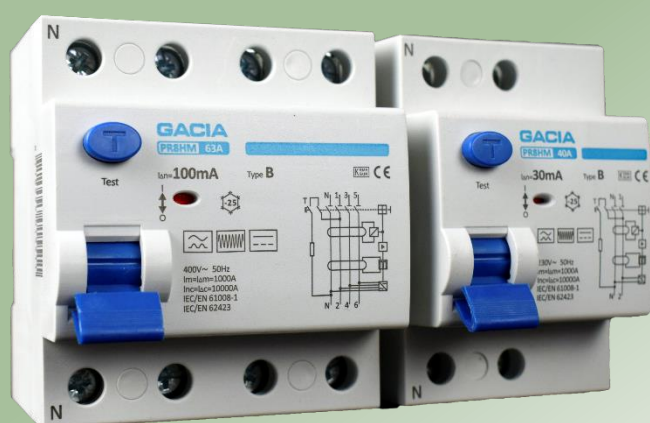




RCCB PR8HM type B

Data Sheet V1.0



Our changing life style and high tech developments makes that there is need for more general safety in our systems. With the GACIA PR8HM electromagnetic type RCCB (residual current circuit breaker) is the solution for this changing lifestyle. With the RCCB you can find the right protection for your situation in any time. The design covers the range up to 63A, in type B, with a sensitivities of 30, 100 or 300mA, all of this with a breaking capacity of 10kA.



PR8HM TYPE B residual current circuit breaker

CE

CB

KEMA
EUR

RoHS

RCCB compliant to product standard IEC/EN 61008 and IEC/EN 62423 and with the following main technical features

- Breaking capacity 10kA
- Electromagnetic (IEC/EN 61008-2-1)
- Type B
- Sensitivity 30, 100, 300mA
- rated current up to 100A

Application benefits

- Supply possible from top and bottom
- Fork or pin type busbar connection (above and below) up to 30mm² and cable connection up to 35mm² cables.
- Terminal cover by attribute
- Locking possibility for the handle in off position by attribute.
- Family feeling in the GACIA range modular components

RCCB's PR8HM Type B

Technical Data



				PR8HM Type B-2	PR8HM Type B-4
Electrical features	Type				
	Standards				IEC/EN 61008-1; IEC/EN 61008-2-1 IEC/EN 62423 (only for type B)
	Certification				CE, CB, KEMA KEUR
	Country of origin				CN
	RoHS Compliance Status				Compliant, No Exemption
	Type (wave form of the earth leakage sensed)				B
	Residual current protection type				Electromagnetic (A type magnetic and B type electronic)
	Number of poles				1p+n 3p+n
	Rated current	In	A	25 - 40 - 63	25 - 40 - 63
	Rated sensitivity	IΔn	A	0.03 - 0.1 - 0.3	0.03 - 0.1 - 0.3
	Rated voltage	Ue	V	230 / 240	240 / 415
	Operating time	Type B		instantaneous	
	Insulation voltage	Ui	V	500 V AC	
	Overvoltage category				III
	Pollution degree				2
	Operating voltage of circuit test		V	196 - 253	196 - 440V
	Rated frequency		Hz	50 - 60	
	Rated breaking capacity acc. to IEC/EN 61009-1	Icu	A	10.000	
	Rated residual breaking capacity IΔm according to EN 61008-1	IΔm	A	1000	
Mechanical features	Rated impulse withstand voltage (1.2/50)	Uimp	kV	4	
	Dielectric test voltage at ind. freq. for 1 min.		kV	2.5 kV (50 / 60Hz, 1 min.)	
	Housing				Insulation group I - II, RAL 7035
	Toggle				Insulation group II, RAL 5017
	Test button				Insulation group II, RAL 5017
	Contact position indication				Green / Red window
	Earth fault trip indication				White window
	Electrical life	operations		2.000	
	Mechanical life	operations		10.000	
	Protection degree acc. to EN 60529	housing		IP4X	
		terminals		IP2X	
	Shock resistance acc. to IEC/EN 60068-2-27				25g - 2 shocks - 13ms
	Vibration resistance acc. to IEC/EN 60068-2-6				0.1 mm or 1 g - 20 cycles at 5...150...5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%	
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25... +70	
	Storage temperature		°C	-40... +70	

RCCB's PR8HM Type B

Technical Data



Type			PR8HM Type B-2	PR8HM Type B-4
Installation	Terminal type	bottom / top	lift / open-mouthed	
	Terminal size for cables	bottom / top	mm ²	50/35
	Terminal size for FORK busbar	bottom / top	mm ²	10/16 (30)
	Terminal size for PIN busbar	bottom / top	mm ²	10/16/30
	Solid /stranded wiring		1x 4mm ² - 50mm ² 2 x 4mm ² - 16mm ² *	
	Flexible wires with or without ferrules		1x 4mm ² - 35mm ² 2 x 4mm ² - 16mm ² *	
	Tightening torque	bottom / top	2-3 Nm (2.5Nm)	
	Stripping length of the cable		12mm	
	Mounting		on DIN rail EN 60715 (35mm) by means of mounting clip	
	Mounting position		Any	
	Supply from		Top / bottom terminals	
Packing	Dimensions (H x W x D)	mm	81 x 54 x 72	81 x 72 x 72
	Weight	kg	0,26	0,38
	Packing A	QTY	4	3
		Dimensions (H x W x D)	220 x 88 x 82	
		Weight	1,10	1,26
	Packing B (x A)	QTY	40	30
		Dimensions (H x W x D)	425 x 234 x 190	
		Weight	13	14
	CN-code		85362010	
Combination with auxiliary elements	Auxiliary contact		NA	
	Alarm contact		NA	
	Shunt trip		NA	
	Auxiliary contact for bottom fitting		NA	
	Undervoltage release		NA	
	Overvoltage release		NA	
	Motor operating device		NA	

* Check local installation rules, this type of connection is not advised. Special add-on terminals are available.

RCCB PR8HM type B

Technical Data

Performance in altitude*

Elevation [m]	2000	3000	4000	5000	6000
Rated current [A]	1 x In	0,95 x In	0,92 x In	0,90 x In	0,88 x In
Rated voltage [V]	1 x Un	0,85 x Un	0,75 x Un	0,65 x Un	0,55 x Un

* the isolator switch is designed for standard level operations, performance information on higher altitude is not available

Power loss component

In [A]	IΔn	2p [W]	4p [W]
25	30mA	6,6	8,6
	100mA	4,3	8,6
	300mA	4,3	8,6
40	30mA	6,9	13,7
	100mA	10,5	13,7
	300mA	10,5	13,7
63	30mA	16,5	21,6
	100mA	10,9	21,6
	300mA	10,9	21,6

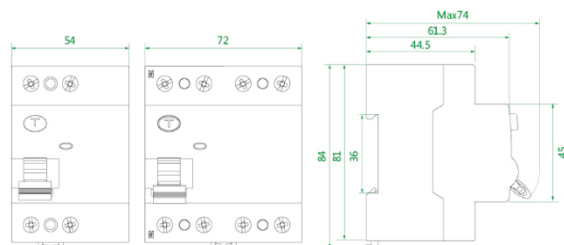
Influence of adjacent devices

Number of devices	Correction factor
1	1
2-3	0,9
4-5	0,8
6-9	0,7
≥10	0,6

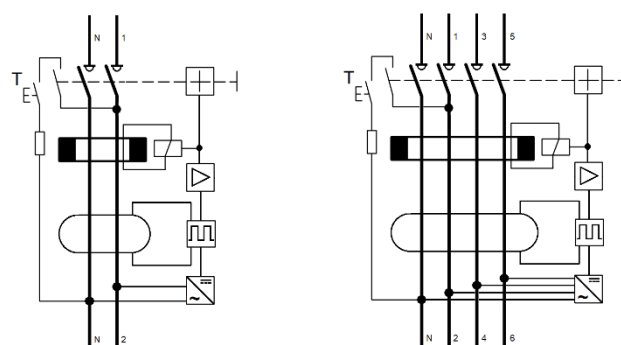
These values are provided by recommendation IEC 61439-1 and standards EN 61439-1. In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing element article number 2119000010 (0.5 module).

Overall dimensions

All measurements in mm



Connection diagram



Type B
1P+N

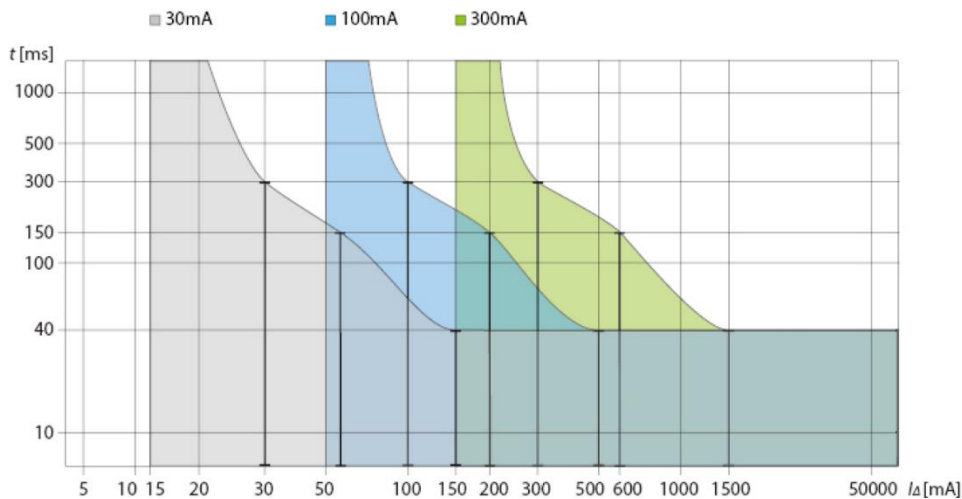
Type B
3P+N

RCCB's PR8HM Type B

Technical Data

Tripping Characteristics (IEC/EN 61008)

Tripping characteristics, tripping time range for instantaneous type B.






Wiring options

1 phase	3 phase – 4 wire	3 phase – 3 wire (bridge)*
Type B 1p+n	Type B 3p+n	Type B 3p+n

* If there is no neutral, the RCCB will be connected normally but a bridge (article no. 2305181002) will need to be added across terminals N/3, as shown, will cause a voltage drop which leaves the test circuit at a suitable normal operation range.

RCCB's PR8HM Type B




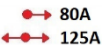

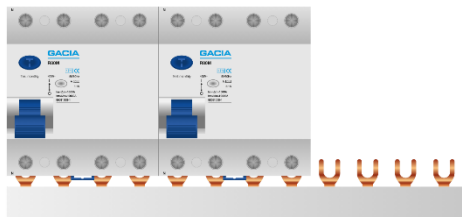
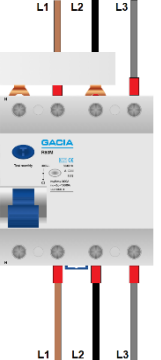

Order codes

			
		1P+N	3P+N
IΔn	Inom	B	B
30mA	25 A	5105320025	5105340025
	40 A	5105320040	5105340040
	63 A	5105320063	5105340063
100mA	25 A	5105322025	5105342025
	40 A	5105322040	5105342040
	63 A	5105322063	5105342063
300mA	25 A	5105323025	5105343025
	40 A	5105323040	5105343040
	63 A	5105323063	5105343063
Terminal cover	Yellow	5102290010	5102490010
			

RCCB's PR8HM Type B

Order codes for connective rail

Supplied by SEP EUROPE ®

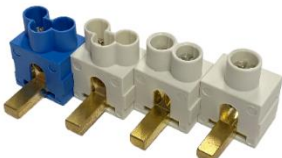
Busbar / connective rail type	PR8HM TYPE B-2	PR8HM TYPE B-4	10mm ² (closed end - non cuttable)		16mm ² (cut to size with end- caps)	
			ΣI  63A 100A		ΣI  80A 125A	
			PIN	FORK	PIN	FORK
2 pole (phase neutral) N1-N1-N1... * 	2	-	2305103006	2305113006	2306030006	2306130006
	3	-	2305103009	2305113009	2306030009	2306130009
	4	-	2305103012	2305113012	2306030012	2306130012
	5	-	2305103015	2305113015	2306030015	2306130015
	6	-	2305103018	2305113018	2306030018	2306130018
	7	-			2306030021	2306130021
	8	-			2306030024	2306130024
	18	-			2306160300	2306161300
4 pole (3 phase neutral) N123-N123... 	-	2	2305104008	2305114008	2306040008	2306140008
	-	3	2305104012	2305114012	2306040012	2306140012
	-	4	2305104016	2305114016	2306040016	2306140016
	-	5	-	-	2306040020	2306140020
	-	6	-	-	2306040024	2306140024
	-	14	-	-	2306160400	2306161400
	BRIDGE connector for 3 phase systems without neutral.		Quinten			
	Open mouth covers for busbar PIN/FORK		2115900010			


* 3 pole busbar – when ordered customer has to remove the third phase from the busbar


RCCB's PR8HM Type B

Order codes accessories

Supplied by SEP EUROPE ®

Add-on terminals Reference image	Wire size	PIN		FORK	
		Grey	Blue	Grey	Blue
	1x50mm2 solid/stranded 1x35mm2 flexible	2115900060	2115900120	2115900090	2115900150
	2x25mm2 solid/stranded 2x16mm2 flexible	2115900070	2115900130	2115900100	2115900160
	3x16mm2 solid/stranded 3x10mm2 flexible	2115900080	2115900140	2115900110	2115900170

Marker – spacer Reference image	Description	Code
	Component Spacer 0,5mm	2119000010

Lockout Reference image	Description	Code
	Lockout set - complete	2115909099
	Locking devices adaptor	2115909015
	Locking device screw adaptor	2115909010
	Padlock with 2 identical keys	2115909020
	Warning tag (English)	2115909030

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