DATASHEET - PFIM-63/2/05-MW

Part no. Catalog No.



Residual current circuit breaker (RCCB), 63A, 2p, 500mA, type AC

PFIM-63/2/05-MW 235401



Similar to illustration

Delivery program				
Basic function			Residual current circuit-breakers	
Number of poles			2 pole	
Application			Residual current circuit-breaker for residential and commercial applications	
Rated current	In	Α	63	
Rated short-circuit strength	I _{cn}	kA	10	
Rated fault current	$I_{\Delta N}$	Α	0.5	
Туре			Type AC	
Tripping		s	non-delayed	
Product range			PFIM	
Sensitivity			AC current sensitive	
Impulse withstand current			Partly surge-proof 250 A	

Technical data

e		

Standards LECKIN 61008 Rated operational voltage Ue V AC Rated operating voltage Ue V AC 230 Rated frequency f HZ 50 Limit values of the operating voltage VAC 186-284 Test circuit VAC 186-284 Sansitivity AC current sansitive Rated insplain voltage Ui VAC Rated insplain voltage Ui 4 Rated insplain voltage VAC 10 Rated insplain voltage VAC 4 Rated insplain voltage VAC 4 Rated insplain voltage VAC 300 Rated insplain voltage VAC 400 Rated making and breaking apacity / Rated residual making and breaking apacity / Ra	Electrical			
Rated operating voltage Ve VAC 230 Bated frequency f Ve VAC 230 Limit values of the operating voltage F VAC 50 Test circuit F VAC 196 - 264 Sensitivity AC current sensitive Rated insulation voltage Uiny V 40 Rated impulse withstand voltage Ion KV 4 Rated short-circuit strength Ion KA 10 Rated making and breaking capacity / Rated residual making and breaking capacity / Rated	Standards			IEC/EN 61008
Rated frequency Fast circuit Test circuit Sensitivi Rated insulation voltage Test circuit Sensitivi Rated insulation voltage Rated insulation voltage insulation Rated insulation voltage	Rated operational voltage	U _e	V	
Rated frequency f Hz 50 Limit values of the operating voltage VAC 198-284 Test circuit VAC 198-284 Sensitivity AC current sensitive Rated insulation voltage Ui VA 440 Rated insulation voltage Io KA 10 Rated short-circuit strength Io KA 10 Rated making and breaking capacity / Rated residual making and breaking and breaking and breaking capacity / Rated residual making and breaking and breaking capacity Ac 2000 30 Electrical Operations 2 20000 20 20000 References VAC 2-HK 248432 2-WILK 248434 2-WILK 248434 2-WILK 248434 2-WILK 248434 2-WILK 248444 2-WILK 248436		U _e	V AC	
Limit values of the operating voltage Test circuit Sensitivity Rated insulation voltage Rated short-circuit strength Rated short-circuit strength Rated short-circuit strength Rated short-circuit strength Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking Rated making and breaking capacity / Rated residual making and breaking capacity / Rated Rated Marchalla (Papacity Capacity Capac	Rated operating voltage	U _e	V AC	230
Test circuit Sensitivity Rated insulation voltage Ruted insulation capacity / Rated residual making and breaking in	Rated frequency	f	Hz	50
Sensitivity Current sensitive Rated insulation voltage U _i V 440 Rated inpulse withstand voltage U _{imp} kV 4 Rated short-circuit strength I _{cn} kA 10 Rated making and breaking capacity / Rated residual making and breaking capacity I _m / I _{dm} A 30 Electrical Operations ≥ 4000 2000 Mechanical Operations ≥ 20000 References Auxiliary switch for subsequent installation I = 1	Limit values of the operating voltage			
Rated insulation voltage Rated impulse withstand voltage Rated short-circuit strength Rated short-circuit strength Rated making and breaking capacity/ Rated residual making and breaking capacity Iifespan Electrical Mechanical Mechanical Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Device height Built-in width Device height Built-in width Device of Protection Terminals top and bottom Terminals top and bottom Terminals top and bottom Terminals top and bottom Terminal protection Terminals row and bottom Terminals row and some and bottom Terminals row and and making and breaking and bottom Terminals row and and and making and betamination Terminals row and and and breaking and bone and preaking and bottom Terminals row and and and preaking an	Test circuit		V AC	196 - 264
Rated impulse withstand voltage Rated short-circuit strength Rated short-circuit strength Rated making and breaking capacity / Rated residual making and breaking capacity / Rated value / Rate	Sensitivity			AC current sensitive
Rated short-circuit strength Rated making and breaking capacity / Rated residual making and breaking capacity / Rated	Rated insulation voltage	Ui	V	440
Rated making and breaking capacity / Rated residual making and breaking capacity lifespan Electrical Operations	Rated impulse withstand voltage	U _{imp}	kV	4
tifespan Electrical Operations ≥ 4000 Mechanical Operations ≥ 20000 References Auxiliary switch for subsequent installation Tripping signal contact for subsequent installation Tripping signal contact for subsequent installation Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Standard front dimension Mechanical Standard front dimension Multi-in width Mounting Mounting Mounting Degree of Protection Terminals top and bottom Terminal protection Mechanical Standard fronted in month of the mo	Rated short-circuit strength	I _{cn}	kA	10
Electrical Mechanical Mechanical Operations ≥ 20000 References Auxiliary switch for subsequent installation Tripping signal contact for subsequent installation Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Standard front dimension Device height Built-in width Mounting Degree of Protection Terminals top and bottom Terminal protection Operations ≥ 4000 ≥ 20000 X-HV 248432 Z-NHK 248432 Z-NHK 248434 X-FW/LP 248296 KLV-TC-2 276240 Z-RC/AK-2MU 285385 Mechanical Terminal stop and bottom Degree of Protection Degree of Degree of Protection Degree of Degree of Protection Degree of Protection Degree of Degree of Protection Degree of Protection Degree of Degree of Protection Degree of Degree of Degree of Protection Degree of Degree of Degree of Degree of Degree of Protection Degree of Degree of Degree of Protection Degree of Degree of Degree of Degree of Protection Degree of Degre		$I_m/I_{\Delta m}$	Α	630
Mechanical Operations ≥ 20000 References Auxiliary switch for subsequent installation Z-HK 248432 Tripping signal contact for subsequent installation Z-NHK 248434 Remote control and automatic switching device Z-FW/LP 248296 Compact enclosure KLV-TC-2 276240 Sealing cover set KLV-TC-2 276240 Sealing cover set Z-RC/AK-2MU 285385 Mechanical mm 45 Standard front dimension mm 45 Device height mm 80 Built-in width mm 35 (2TE) Mounting Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	lifespan			
References Auxiliary switch for subsequent installation Tripping signal contact for subsequent installation Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Standard front dimension Mounting Degree of Protection Terminals top and bottom Terminal protection Z-HK 248432 Z-NHK 248434 Z-PW/LP 248296 KLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 Z-RC/AK-2MU 285385 Mechanical Standard front dimension Mm 45 Mm 80 Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 IP40, IP54 (with moisture-proof enclosure) Open mouthed/lift terminals DGUV VS3, EN 50274	Electrical	Operations		≧ 4000
Auxiliary switch for subsequent installation Tripping signal contact for subsequent installation Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Standard front dimension Built-in width Mounting Degree of Protection Terminals top and bottom Terminal protection Z-HK 248432 Z-NHK 248434 Z-FW/LP 248296 KLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 Z-RC/AK-2MU 285385 MS-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S	Mechanical	Operations		≧ 20000
Tripping signal contact for subsequent installation Remote control and automatic switching device Z-FW/LP 248296 Compact enclosure KLV-TC-2 276240 Z-RC/AK-2MU 285385 Mechanical Standard front dimension mm 45 Device height mm 80 Built-in width mm 35 (2TE) Mounting Degree of Protection Terminals top and bottom Terminal protection Z-NHK 248434 Z-PW/LP 248296 KLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 Z-RC/AK-2MU 285385 Mounting 80 Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 IP40, IP54 (with moisture-proof enclosure) Open mouthed/lift terminals DGUV VS3, EN 50274	References			
Remote control and automatic switching device Compact enclosure Sealing cover set Mechanical Standard front dimension Standard front dimension Menich height Built-in width Mounting Degree of Protection Terminals top and bottom Terminal protection Z-FW/LP 248296 KLV-TC-2 276240 2-RC/AK-2MU 285385 MLV-TC-2 276240 2-RC/AK-2MU 285385 MLV-TC-2 276240 2-RC/AK-2MU 285385 MB 45 Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 IP40, IP54 (with moisture-proof enclosure) Open mouthed/lift terminals DGUV VS3, EN 50274	Auxiliary switch for subsequent installation			Z-HK 248432
Compact enclosure Sealing cover set Z-RC/AK-2MU 285385 Mechanical Standard front dimension mm 45 Device height mm 80 Built-in width mm 35 (2TE) Mounting Degree of Protection Terminals top and bottom Terminal protection KLV-TC-2 276240 Z-RC/AK-2MU 285385 MLV-TC-2 276240 AULIC STANDARD AULIC STANDARD KLV-TC-2 276240 AULIC STANDARD AULIC STANDARD KLV-TC-2 276240 AULIC STANDARD AULIC STANDAR	Tripping signal contact for subsequent installation			Z-NHK 248434
Sealing cover set Mechanical Standard front dimension mm 45 Device height Built-in width Mounting Degree of Protection Terminals top and bottom Terminal protection Z-RC/AK-2MU 285385 mm 45 0 Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 IP40, IP54 (with moisture-proof enclosure) Open mouthed/lift terminals DGUV VS3, EN 50274	Remote control and automatic switching device			Z-FW/LP 248296
Mechanical Standard front dimension mm 45 Device height mm 80 Built-in width mm 35 (2TE) Mounting Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	Compact enclosure			KLV-TC-2 276240
Standard front dimension mm 45 Device height mm 80 Built-in width mm 35 (2TE) Mounting Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	Sealing cover set			Z-RC/AK-2MU 285385
Device height mm 80 Built-in width mm 35 (2TE) Mounting Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	Mechanical			
Built-in width mm 35 (2TE) Mounting Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	Standard front dimension		mm	45
Mounting Ouick attachment with 2 latch positions for DIN-rail IEC/EN 60715 IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Terminal protection Open mouthed/lift terminals DGUV VS3, EN 50274	Device height		mm	80
Degree of Protection IP40, IP54 (with moisture-proof enclosure) Terminals top and bottom Open mouthed/lift terminals Terminal protection DGUV VS3, EN 50274	Built-in width		mm	35 (2TE)
Terminals top and bottom Open mouthed/lift terminals Terminal protection Ogen mouthed/lift terminals DGUV VS3, EN 50274	Mounting			Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715
Terminal protection DGUV VS3, EN 50274	Degree of Protection			IP40, IP54 (with moisture-proof enclosure)
	Terminals top and bottom			Open mouthed/lift terminals
- · ·	Terminal protection			DGUV VS3, EN 50274
Ierminal cross-section	Terminal cross-section			

Solid	mm^2	1.5 - 35
Stranded	mm^2	2 x 16
Thickness of busbar material	mm	0.8 - 2
Permissible storage and transport temperatures	°C	-35 - +60
Climatic proofing		25-55°C/90-95% relative humidity according to IEC 60068-2
Thickness of busbar material	mm	
Material thickness	mm	0.8 - 2

Design verification as per IEC/EN 61439

Design verincation as per illo/liv 01433			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	7.2
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	60
			Starting at 40 °C, the max. permissible continuous current decreases by 1.8% 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)

(ecl@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles		2	
Rated voltage	V	230	
Rated current	Α	63	
Rated fault current	mA	500	

Rated insulation voltage Ui	,	V	440
Rated impulse withstand voltage Uimp		kV	4
Mounting method			DIN rail
Leakage current type			AC
Selective protection			No
Short-time delayed tripping			No
Short-circuit breaking capacity (Icw)	1	kA	10
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			2
Built-in depth	1	mm	70.5
Ambient temperature during operating		°C	-25 - 40
Pollution degree			2
Connectable conductor cross section multi-wired	1	mm²	1.5 - 16
Connectable conductor cross section solid-core		mm²	1.5 - 35