DATASHEET - EMR6-R250-A-1



Insulation monitoring relays, 0 - 250 V AC, 0 - 300 V DC, 1 - 100 kΩ

Part no.	**EMR6-R250-A-1**
Catalog No.	**184772**
Eaton Catalog No.	**EMR6-R250-A-1**

Powering Business Worldwide

Technical data

General

Standards			IEC/EN 60255-6,
Lifespan, mechanical	Operations	x 10^6	30
Climatic proofing			Damp heat, cyclical to IEC 60068-2-30: 24 h cycle, 55° C, 93% relative humidity, 96 h
Ambient temperature			
Operation		°C	
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	+ 60
Storage		°C	- 40 - 85
Mounting position			As required
Shock resistance			Class 2
Degree of protection			
Terminals			IP20
Enclosures			IP50
Terminal capacities		mm^2	
Solid		mm^2	1 x 0.5-2.5 (1 x 18-14 AWG)
Flexible with ferrule		mm^2	2 x 0.5-1.5 (2 x 18-16 AWG)
Standard screwdriver		mm	5.5 x 0.8
Tightening torque		Nm	0.5 - 0.8
Fixing			Snap fixing, top-hat rail IEC/EN 60715

Contacts

Rated impulse withstand voltage	U_{imp}	V AC	4000
Overvoltage category/pollution degree			III/3

Power supply

Supply voltage			24 - 240 V AC, 50/60 Hz 24 - 240 V DC
Voltage tolerance		x U_c	0.85 - 1.1
Power consumption		VA	3.5
Rated frequency	f	Hz	50 - 60
Duty factor		% DF	100

Measuring circuits

Hysteresis		%	
Hysteresis, max.		%	25
Cable length for cancellation- and test button		m	10

Status indication

Supply voltage			LED, green
Fault at L+			LED, red
Fault at L-			LED, red
Status indicator (LED)			Green, solid: Supply voltage Other states depending on fault (see IL): Measured value

Relay output contacts

Rated operational current	I_e	A	
AC-12 at 230 V	I_e	A	5
AC-15 with 230 V	I_e	A	3
DC-13 at 24 V	I_e	A	2.5

Lifespan, electrical (AC-12/230 V/4 A)	Operations	x 10^6	
Lifespan, electrical	Operations	x 10^6	0.1
Short-circuit rating			
max. fuse	Fast/gL	A	5

Electromagnetic compatibility (EMC)

Electromagnetic compatibility			IEC/EN 60947-6-2
ESD	Air/contact discharge	kV	IEC/EN 61000-4-2 level 3
HF-immunity to radiation			IEC/EN 61000-4-3 level 3
Burst			IEC/EN 61000-4-4 level 3
Surge			IEC/EN 61000-4-5 Level 4
HF-immunity to line-conducted interference			IEC/EN 61000-4-6 level 3

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60

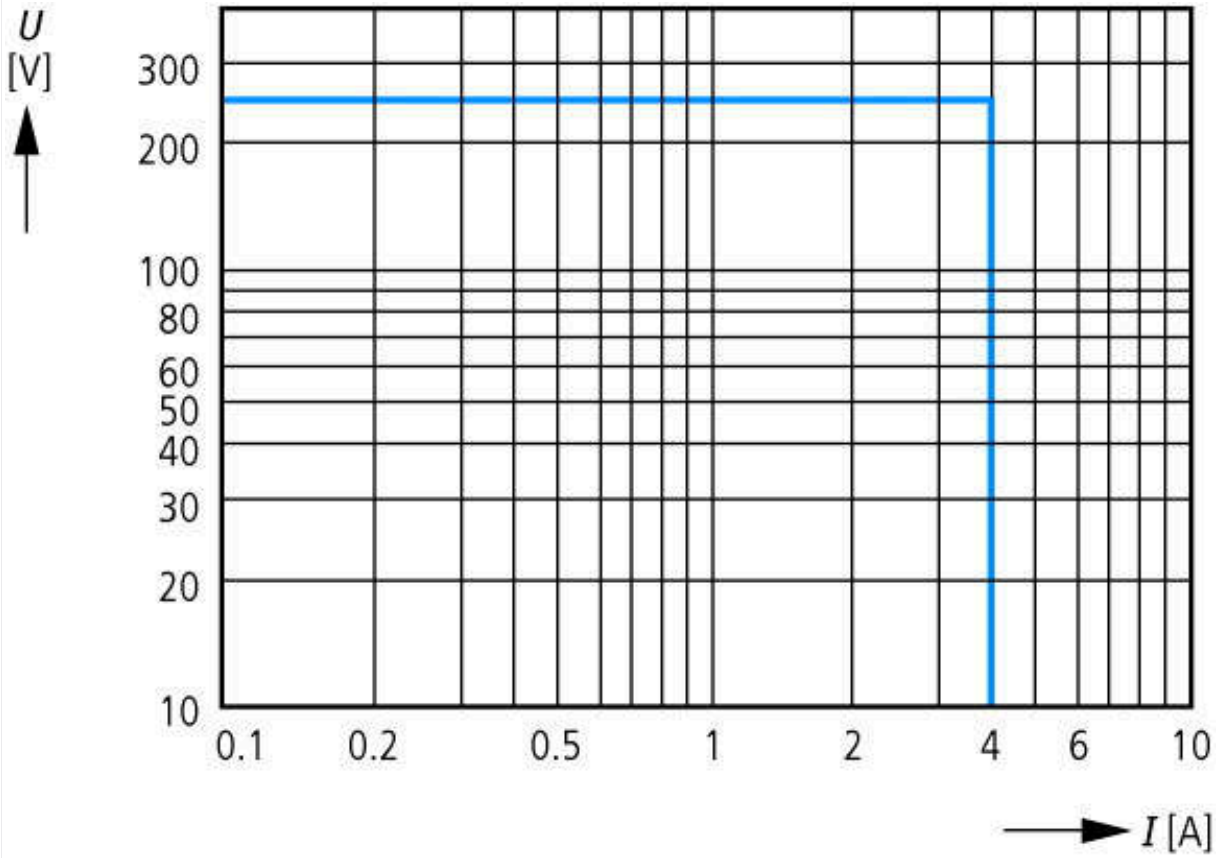
Technical data ETIM 7.0

Relays (EG000019) / Insulation and earth fault monitoring relay (EC001444)

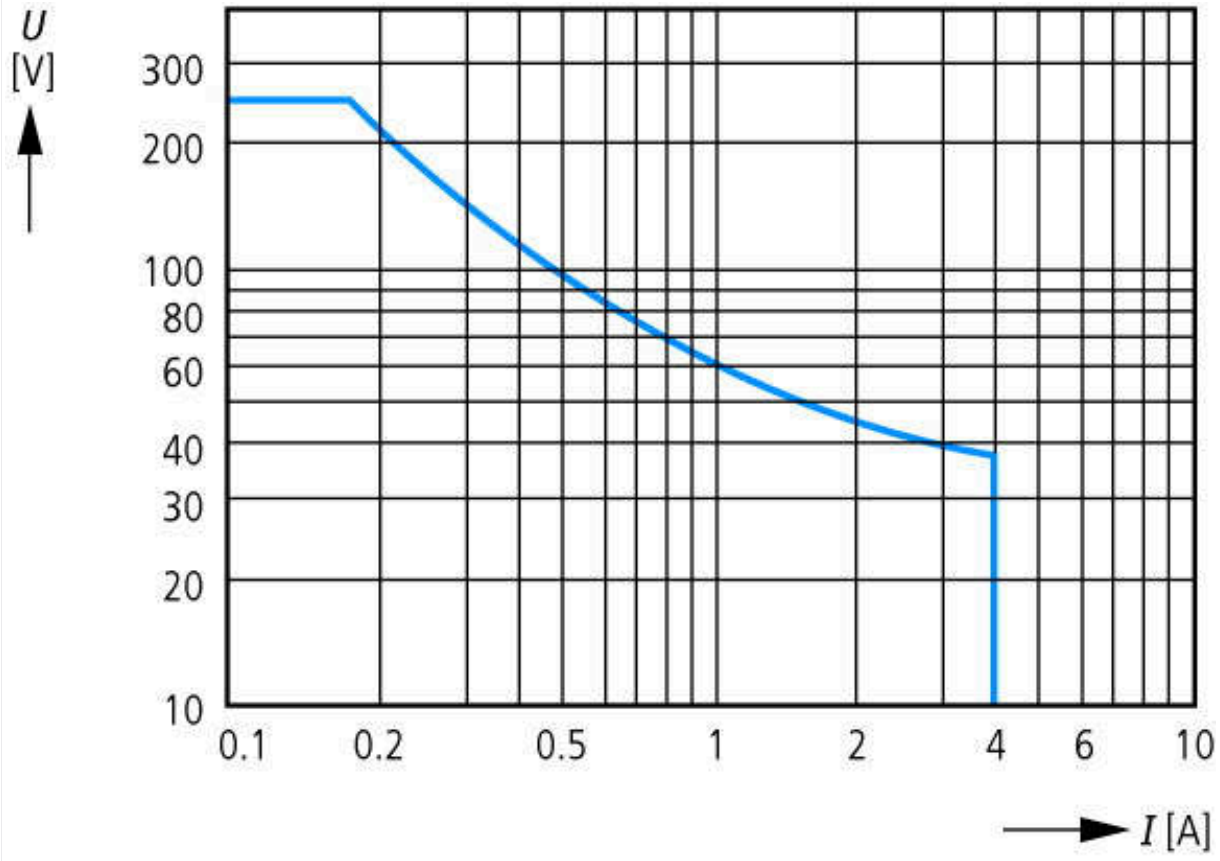
Electric engineering, automation, process control engineering / Low-voltage switch technology / Monitoring equipment (low-voltage switch technology) / Insulation-/earth connection monitoring equipment (ecl@ss10.0.1-27-37-18-07 [AKF101014])

Type of electric connection			Screw connection
Rated control supply voltage Us at AC 50HZ		V	24 - 240
Rated control supply voltage Us at AC 60HZ		V	24 - 240
Rated control supply voltage Us at DC		V	24 - 240
Voltage type for actuating			AC/DC
With detachable clamps			No
Function			For mixed system
Rated voltage		V	0 - 250
Rated frequency		Hz	15 - 400
Line capacity		µF	10
Response value impedance 1		kOhm	1 - 100
Response value impedance 2		kOhm	0 - 0
Indication of insulation value			No
Error registration possible			Yes
Number of contacts as normally closed contact			0
Number of contacts as normally open contact			0
Number of contacts as change-over contact			1
Width		mm	23
Height		mm	85
Depth		mm	110

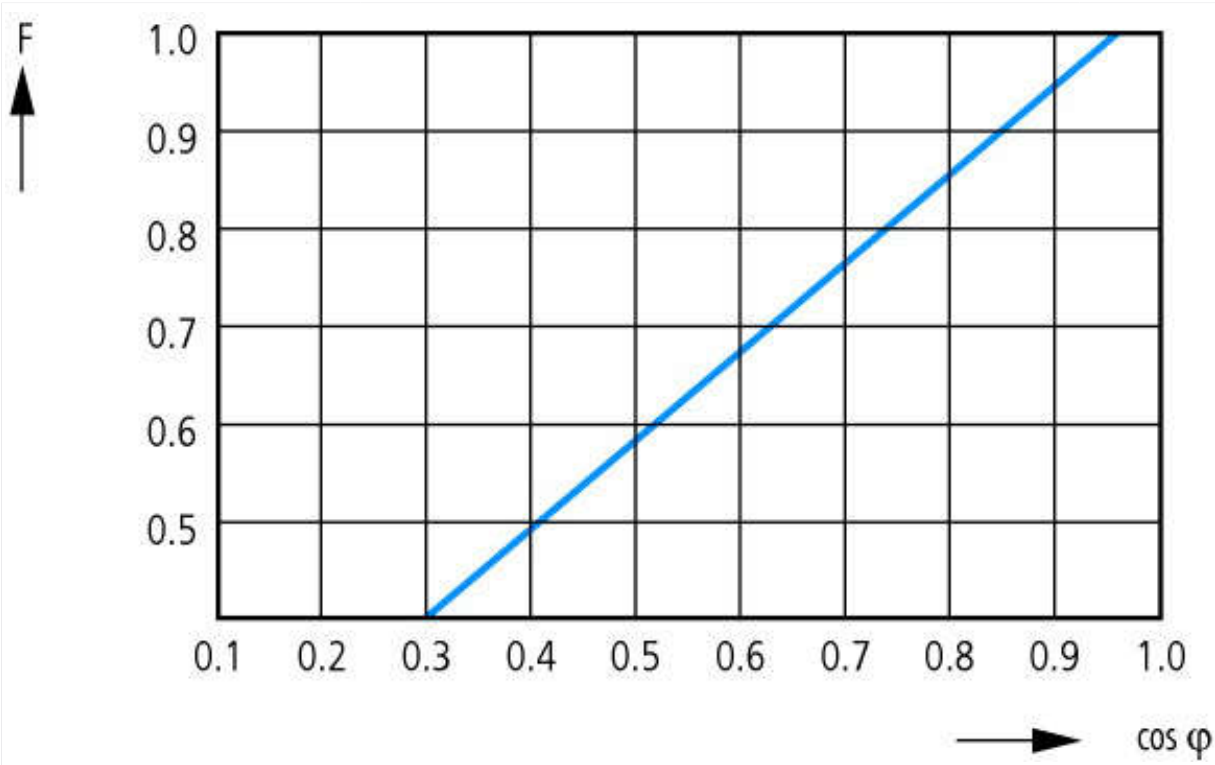
Characteristics



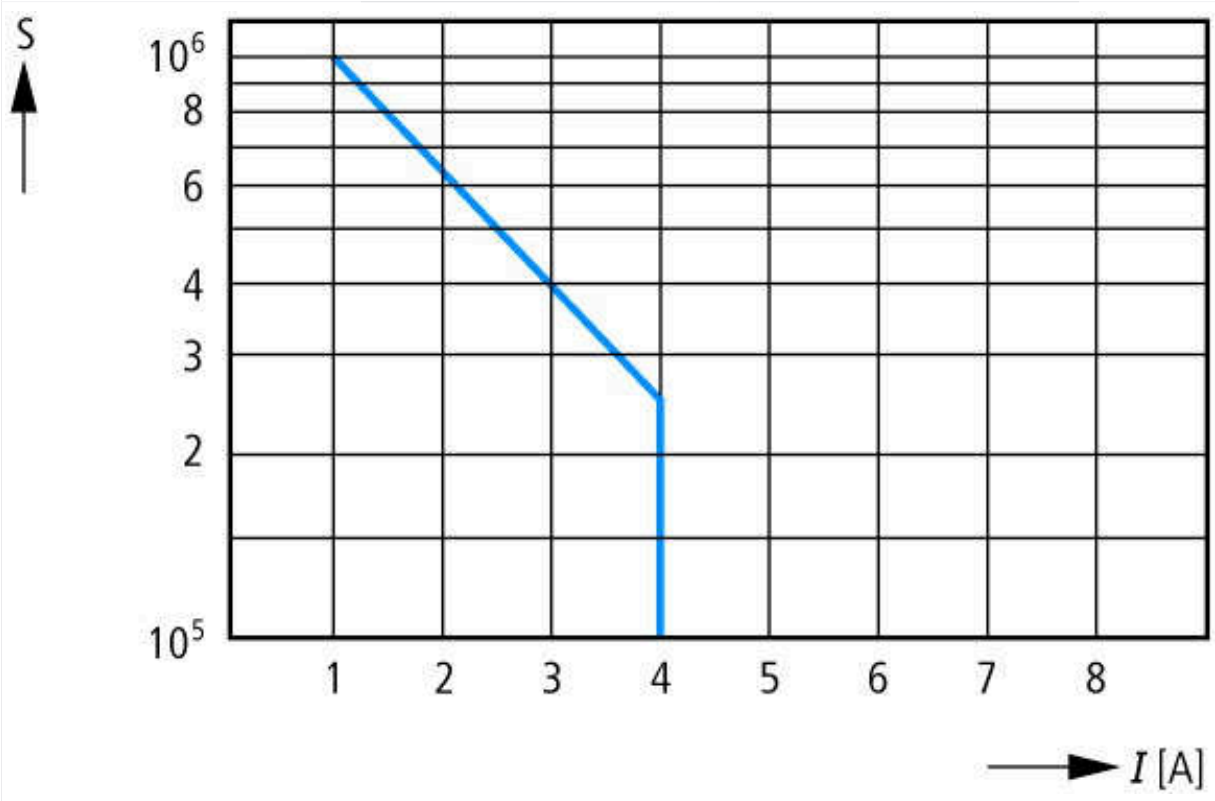
AC load (resistive)



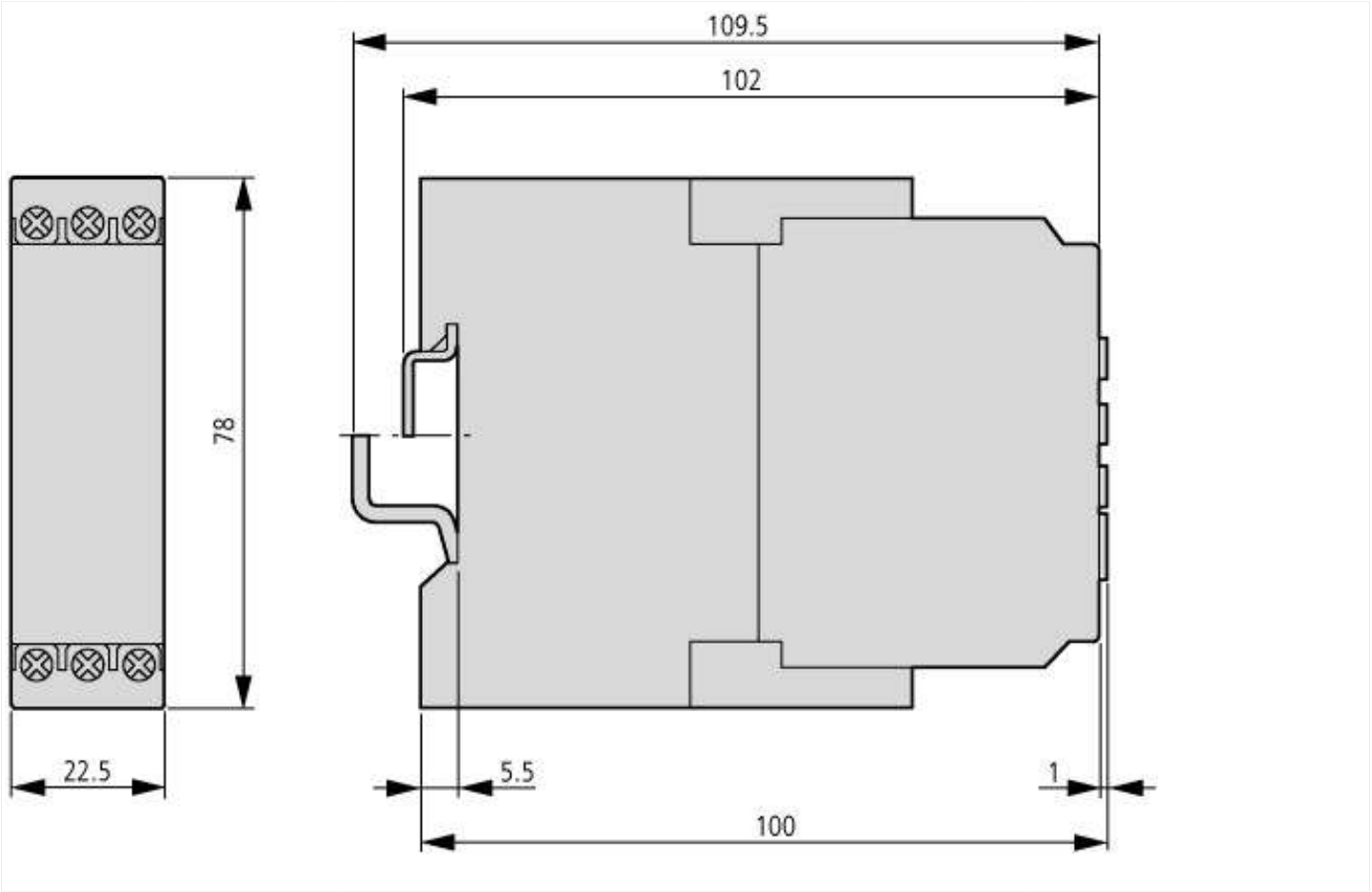
DC load (resistive)



Derating factor F with inductive AC load



Dimensions



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