

Monitoring Relays

3UG Monitoring Relays for Electrical and Additional Measurements

Power factor and active current monitoring

Technical specifications

Type		3UG46 41
General data		
Rated control supply voltage U_s	V	90 ... 690
Rated frequency	Hz	50/60
Rated power, typical <ul style="list-style-type: none">At 200 V ACAt 400 V ACAt 460 V AC	VA VA VA	2.0 2.7 3.1
Width	mm	22.5
RESET		Automatic/ manual
Principle of operation		Closed-circuit principle, open-circuit principle
Availability time after application of U_s	ms	1000
Response time once a switching threshold is reached	ms	Max. 450
Adjustable tripping delay time	s	0.1 ... 20
Adjustable ON-delay time	s	0 ... 99
Mains buffering time, minimum	ms	10
Rated insulation voltage U_i Degree of pollution 3 Overvoltage category III acc. to VDE 0110	V	690
Rated impulse withstand voltage	kV	6
Permissible ambient temperature <ul style="list-style-type: none">During operationDuring storage	°C °C	-25 ... +60 -40 ... +85
EMC tests ¹⁾		IEC 60947-1/ IEC 61000-6-2 / IEC 61000-6-4
Degree of protection <ul style="list-style-type: none">EnclosureTerminals		IP40 IP20
Vibration resistance acc. to IEC 60068-2-6		1 ... 6 Hz: 15 mm; 6 ... 500 Hz: 2 g
Shock resistance acc. to IEC 60068-2-27		12 shocks (half-sine 15 g/11 ms)
Connection type		Screw terminals
<ul style="list-style-type: none">Terminal screwSolidFinely stranded with end sleeveAWG cables, solid or strandedTightening torque	 mm ² mm ² AWG Nm	M 3 (standard screwdriver, size 2 and Pozidriv 2) 1 x (0.5 ... 4) / 2 x (0.5 ... 2.5) 1 x (0.5 ... 2.5) / 2 x (0.5 ... 1.5) 2 x (20 ... 14) 0.8 ... 1.2
Connection type		Spring-loaded terminals
<ul style="list-style-type: none">SolidFinely stranded, with end sleeves acc. to DIN 46228Finely strandedAWG cables, solid or stranded	 mm ² mm ² mm ² AWG	2 x (0.25 ... 1.5) 2 x (0.25 ... 1.5) 2 x (0.25 ... 1.5) 2 x (24 ... 16)
Measuring circuit		
Measurable active current I_{res}	A	0.2 ... 10
Max. permissible load current	A	10
Peak current < 1 s	A	50
Adjustable response value Phase displacement angle		0.1 ... 0.99
DIAZED protection, gL/gG operational class	A	16
Measuring accuracy	%	10
Repeat accuracy at constant parameters	%	1
Accuracy of digital display		± 1 digit
Deviations for temperature fluctuations	%/°C	±0.1
Hysteresis Phase angle		0.10
Hysteresis Active current monitoring	A	0.1 ... 2.0

¹⁾ Note: This is a Class A product. In the household environment this device may cause radio interference. In this case the user must introduce suitable measures.

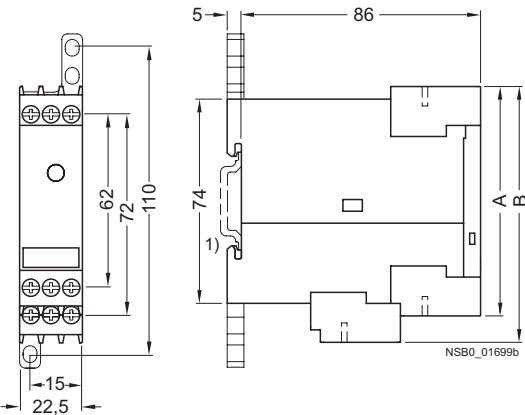
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Control circuits		
Number of CO contacts for auxiliary contacts		2
Load capacity of the output relay		
• Thermal current I_{th}	A	5
Rated operational current I_e at		
• AC-15/24 ... 400 V	A	3
• DC-13/24 V	A	1
• DC-13/125 V	A	0.2
• DC-13/250 V	A	0.1
Minimum contact load at 17 V DC	mA	5
Output relay with DIAZED fuse gL/gG operational class	A	4
Electrical endurance AC-15	Million operat- ing cycles	0.1
Mechanical endurance	Million operat- ing cycles	10

Dimensional drawings



Type	3UG46 41	
	A	B

Removable terminal

Screw-type terminal	83	92
Spring-loaded terminal	84	94

1) For standard mounting rail according to EN 60715.