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 • At 200 V AC • At 400 V AC • At 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 on reaching a switching threshold	ms	450
Adjustable tripping delay time	s	0.1 ... 20
Adjustable ON-delay time	s	0 ... 99
Mains buffering time, min.	ms	10
Rated insulation voltage U_i Degree of pollution 3 Overvoltage category III according to VDE 0110	V	690
Rated impulse withstand voltage	kV	6
Permissible ambient temperature • During operation • During storage	 °C °C	 -25 … +60 -40 … +85
EMC tests[1]		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Degree of protection • Enclosures • Terminals		 IP40 IP20
Vibration resistance according to IEC 60068-2-6	Hz/mm	5 ... 25/0.75
Shock resistance according to IEC 60068 Part 2-27	*g*/ms	15/11
Conductor cross-section • **Screw terminals** - Solid - Finely stranded with end sleeve - AWG conductors, solid or stranded - Tightening torque • **Spring-loaded terminals** - Solid - Finely stranded, with end sleeves according to DIN 46228 - Finely stranded - AWG conductors, solid or stranded	 mm^2 mm^2 AWG Nm mm^2 mm^2 mm^2 AWG	 M3 (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 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.