

Technical specifications

	3UG45 11-..N20	3UG45 11-..P20	3UG45 11-..Q20	3UG45 12	3UG45 13	3UG46 14	3UG46 15 3UG46 17	3UG46 16 3UG46 18
General data								
Rated control supply voltage U_s¹⁾	V	160 ... 260	320 ... 500	420 ... 690	160 ... 690			90 ... 400
Rated frequency	Hz	50/60						
Rated power, typical	W/VAC	2/4	--	--	2/2.5			
• At 230 V AC	W/VAC	--	2/8	--	2/3.5			
• At 400 V AC	W/VAC	--	--	2/8	2/4			
Installation width	mm	22.5						
RESET	Auto-RESET					auto- matic/man- ual		
Principle of operation	Closed-circuit					Closed-circuit, open-circuit (3UG46 17/3UG46 18: closed-circuit)		
Availability time after application of U_s	ms	200		1.000				
Response time once a switching threshold is reached	ms	max. 450						
Unbalance	%	--		10	20	0; 5 ... 20	3UG46 15/3UG46 16: Through threshold values 3UG46 17/3UG46 18: 0; 5 ... 20	
Adjustable tripping delay time	s	--			0.1 ... 20			
Adjustable ON-delay time	s	--				0.1 ... 20	--	
Mains buffering time, minimum	ms	10		30				
Rated insulation voltage U_i	V	690						
Degree of pollution 3								
Overvoltage category III acc. to VDE 0110								
Rated impulse withstand voltage	kV	6						
Permissible ambient temperature	°C	-25 ... +60						
• During operation	°C	-40 ... +85						
• During storage	°C							
EMC tests²⁾	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4							
Degree of protection	IP40							
• Enclosure	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							
• Terminal screw								
• Solid	mm ²	M 3 (standard screwdriver, size 2 and Pozidriv 2) 1 x (0.5 ... 4) / 2 x (0.5 ... 2.5)						
• Finely stranded with end sleeve	mm ²	1 x (0.5 ... 2.5) / 2 x (0.5 ... 1.5)						
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)						
• Tightening torque	Nm	0.8 ... 1.2						
Connection type	Spring-loaded terminals							
• Solid	mm ²	2 x (0.25 ... 1.5)						
• Finely stranded, with end sleeves acc. to DIN 46228	mm ²	2 x (0.25 ... 1.5)						
• Finely stranded	mm ²	2 x (0.25 ... 1.5)						
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)						
Measuring circuit								
Measuring range AC 50/60 Hz rms value	V	160 ... 260	320 ... 500	420 ... 690	160 ... 690			
Setting range	V				200...690	160...690		90...400
Measuring accuracy	%	--			±5			
Repeat accuracy at constant parameters	%	--			±1			
Setting accuracy	--				±10 % referred to set value	±1 V		
Accuracy of digital display	--					±1 digit		
Deviations for temperature fluctuations	%/°C	--			±0.1			
Hysteresis for voltage	V	--			5 % of set value	1 ... 20 V		
Hysteresis for unbalance	%	--				(set value - 2)	3UG46 17/3UG46 18: (set value - 2)	
Deviation for frequency fluctuation	%	--			±1			

1) Absolute limit values.

2) 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.

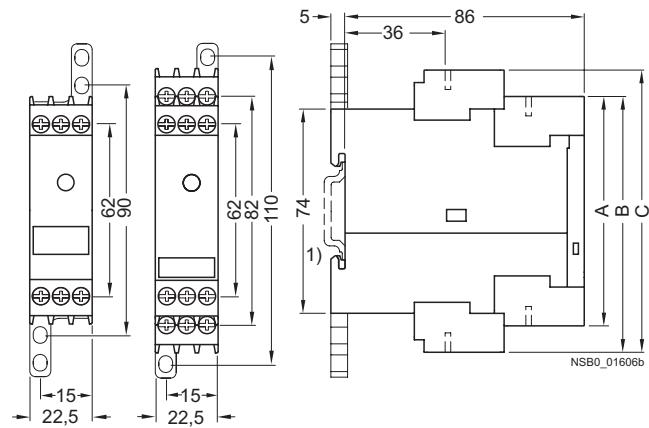
Monitoring Relays

3UG Monitoring Relays for Electrical and Additional Measurements

Line monitoring

	3UG45 11-..N20	3UG45 11-..P20	3UG45 11-..Q20	3UG45 12	3UG45 13	3UG46 14	3UG46 15	3UG46 16
	3UG46 17	3UG46 18						
Control circuits								
Load capacity of the output relay								
• Thermal current I_{th}	A							
		5						
Rated operational current I_e at								
• AC-15/24 ... 400 V	A							
• DC-13/24 V	A							
• 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	A							
gL/gG operational class								
Electrical endurance AC-15				Million operating cycles	0.1			
Mechanical endurance				Million operating cycles	10			

Dimensional drawings



Type	3UG45 11-A 3UG45 12-A	3UG45 11-B 3UG45 12-B 3UG45 13 3UG46 14 3UG46 15 3UG46 17	3UG46 16 3UG46 18
	A	B	C

Removable terminal

Screw-type terminal	83	92	102
Spring-loaded terminal	84	94	103

1) For standard mounting rail according to EN 60715.