# RM17UB310

Modular 3-phase voltage control relay, 5 A, 1 CO, 208...480 V AC





#### Main

Range of product	Zelio Control
Product or component type	Modular measurement and control relays
Relay type	Voltage control relay
Product specific application	For 3-phase supply
Relay name	RM17UB3
Relay monitored parameters	Overvoltage and undervoltage between phases
Time delay	Adjustable 0.330 s, 0 + 10 % on crossing the threshold
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
Power consumption in VA	022 VA 400 V AC 50 Hz
Measurement range	183528 V voltage AC
Utilisation category	AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1 AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-13 IEC 60947-5-1 DC-14 IEC 60947-5-1

### Complementary

o compromising y	
Reset time	1500 ms time delay
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	208480 V AC 50/60 Hz +/- 10 %
Supply voltage limits	183528 V AC
Voltage detection threshold	183 V
Control circuit frequency	5060 Hz +/- 10 %
Output contacts	1 C/O
Nominal output current	5 A
Maximum measuring cycle	150 ms measurement cycle as true rms value
Hysteresis	2 %
Delay at power up	650 ms
Measurement accuracy	+/- 10 % of the full scale value
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 1 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Response time	< 200 ms in the event of a fault)
Quality labels	CE
Overvoltage category	III IEC 60664-1
Insulation resistance	> 500 MOhm 500 V DC IEC 60255-5 > 500 MOhm 500 V DC IEC 60664-1
[Ui] rated insulation voltage	400 V IEC 60664-1

Operating position	Any position without derating
Connections - terminals	Screw terminals, 1 x 0.51 x 4 mm² AWG 20AWG 11) solid without cable end Screw terminals, 2 x 0.52 x 2.5 mm² AWG 20AWG 14) solid without cable end Screw terminals, 1 x 0.22 x 2.5 mm² AWG 24AWG 12) flexible with cable end Screw terminals, 2 x 0.22 x 1.5 mm² AWG 24AWG 16) flexible with cable end
Tightening torque	5.318.85 lbf.in (0.61 N.m) IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED (green) for power ON Relay ON LED yellow)
Mounting support	35 mm symmetrical DIN rail EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Safety reliability data	B10d = 470000 MTTFd = 502.2 years
Maximum Width	0.69 in (17.5 mm)
Net Weight	0.18 lb(US) (0.08 kg)
Functionality	Overvoltage and undervoltage detection
Compatibility code	RM17

### Environment

Electromagnetic compatibility	Emission standard for industrial environments EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3 Immunity for industrial environments NF EN/IEC 61000-6-2
Standards	EN/IEC 60255-1
Product certifications	GOST UL GL C-tick CSA
Directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
Ambient air temperature for storage	-40158 °F (-4070 °C)
Ambient air temperature for operation	-4122 °F (-2050 °C)
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30
Vibration resistance	0.35 mm 557.6 Hz)IEC 60068-2-6 1 gn 57.6150 Hz)IEC 60255-21-1
Shock resistance	5 gn IEC 60068-2-27
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz, 1 min
Non-dissipating shock wave	4 kV

### Ordering and shipping details

22380 - RELAYS-MEASUREMENT (RM17-RM35)
CP2
00785901603801
1
0.19 lb(US) (0.09 kg)
Yes
ID

## Packing Units

•		
Unit Type of Package 1	PCE	
Package 1 Height	1.10 in (2.8 cm)	
Package 1 width	3.07 in (7.8 cm)	
Package 1 Length	3.78 in (9.6 cm)	
Unit Type of Package 2	S02	
Number of Units in Package 2	48	
Package 2 Weight	10.44 lb(US) (4.734 kg)	
Package 2 Height	5.91 in (15 cm)	
Package 2 width	11.81 in (30 cm)	
Package 2 Length	15.75 in (40 cm)	

### Offer Sustainability

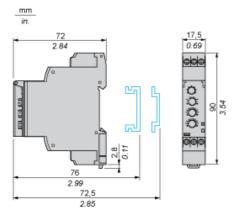
Green Premium product
WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Declaration
Pro-active compliance (Product out of EU RoHS legal scope)
Yes
₽¥Yes
☑ China RoHS Declaration
Product Environmental Profile
<sup>™</sup> End Of Life Information
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty	
Warranty	18 months

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### 3-Phase Voltage Control Relays

### **Dimensions and Mounting**



# Product data sheet Connections and Schema

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### 3-Phase Voltage Control Relays

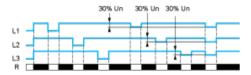
### Wiring Diagram



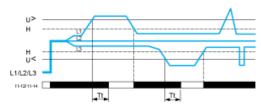
## RM17UB310

### **Function Diagrams**

### Phase Failure Detection (U measured < 0.7 x nominal supply voltage)



### Control of Overvoltage and Undervoltage



### Legend

Un Nominal supply voltage

R Output relay

Tt Overvoltage and undervoltage threshold delay (adjustable on front panel from 0.3 to 30 s)

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

L1, L2, L3 Phases of the supply voltage monitored

11-12, 11-14 R1 output relay connections

Relay status: black color = energized.