

RACO



Power Monitoring Relay PMR 575V

- Industrial Design

- Width 45 mm
- True Power Monitoring
- Fault Latch
- Form C Output Contact
- 1 & 3 Phase
- 42 to 690V AC
- VFD (10 to 100 Hz)
- Selectable Range 2, 4, 8, 16 kW

<u>Thrust Overload Protection</u> <u>via</u> <u>Power Monitoring</u>

Introduction

The thrust level that the electro-mechanical actuator is developing has a direct relationship with the electrical power consumption of the actuator motor. By monitoring and comparing the power consumption to a preset threshold value, a precise maximum thrust value can be defined.

Function

The actuator motor true power monitoring relay (PMR 575V) operates in the fail safe mode for single and three phase power systems. When the actuator motor power is initially applied, a time delay begins to suppress the power spike due to the additional acceleration and inertia power requirements. The delay time is factory set and slightly longer than the inrush time.

After the delay time has expired, the relay de-energizes when the actuator motor power rises above the preset trip point (this represents an over-thrust condition). The PMR 575V unit remains locked-out, if terminal Y1 and Y2 is connected, with the dry relay contacts open until the reset button is pressed or the control voltage is interrupted and re-applied. An external CT may be used to extend the power range of the PMR 575V unit.



Coal Unloading Facility

RACO International, L.P.

3350 Industrial Blvd., Bethel Park PA 15102, Tel: 412-835-5744, Fax: 412-835-0338, web: www.racointernational.com



Operational Function Minimum & Maximum Monitoring

The PMR 575V power monitoring unit is equipped with multiple functions for a wide



range of power monitoring capabilities. The function which is utilized for the thrust overload protection of your actuator is the minimum & maximum "Function" selected via the bottom rotary switch on the unit.

The next rotary switch up "Range" matches the connected motor power consumption at the rated actuator thrust value with the unit measurement range. Four settings are available: 2, 4, 8, 16 kW.

The next rotary potentiometer "Delay" determines the time after which the unit should shut off after the thrust limit is reached. This time should be as short as possible to protect the actuator and the attached equipment from thrust overloading. The value is typically factory selected for 0.1 seconds.

The potentiometer "P1" is used to adjust the thrust shut off point of the actuator. At the nominal rated thrust value of the actuator, the actuator motor will draw a precise electrical supply power value. The motor power consumption value will be calculated as a percentage of the selected power range (second rotary switch from the bottom).

Example:

RACO Actuator T1A5 with a nominal thrust rating of 1100 lbf and a rated speed of 4.2"/sec.

Supply Voltage: 575VAC, 3 Phase At rated thrust of 1100 lbf the motor will draw 1,831 W electrical power. Selected power range setting at the PWR 575V unit is 2kW.

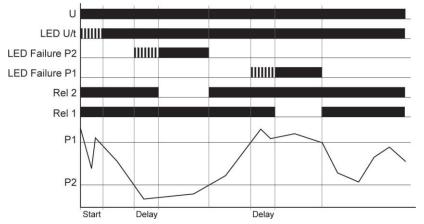
P1 should be set at:

$$P1 = \frac{1831 * 100}{2000} \% = 91.55 \%$$

To block out the power consumption readings during start-up in retract or extend direction, a start-up delay time can be selected. The potentiometer start is typically factory set at 1 sec. In rare cases where huge masses are connected to the actuator which need to be accelerated or decelerated, a slightly higher start-up time may be required. Settings above 2 to 3 sec indicate dynamic overloading of the actuator. Please consult factory.

The "P2" minimum power consumption setting is not relevant for the thrust overload protection monitoring of the actuator and should be set to its lowest level at 5%.

The below diagram illustrates the behavior of the thrust overload protection unit PMR 575V.



RACO International, L.P.

3350 Industrial Blvd., Bethel Park PA 15102, Tel: 412-835-5744, Fax: 412-835-0338, web: www.racointernational.com



Read and understand these instructions before installing, operating or maintaining the equipment.



Danger! Never carry out work on live parts! Danger of fatal injury! The product must not be used in case of obvious damage. To be installed by an authorized person.

6. Output circuit

Technical data

 1. Functions
 True power monitoring in 1- and 3-phase loads with adjustable thresholds (P1 and P2), timing for start-up suppression time and tripping relationship adjustable, selectable fault latchand the following
 Rated voltage:
 250V a.c.

 1. Functions
 Switching capacity:
 750VA (3A / 250V a.c.)

 1. Functions
 If the distance between the devices is less than 5mm!

 Pated voltage:
 1250VA (5A / 250V a.c.)

2MIN Minimum monitoring met recognition of disconnected consumers (relay OFF If I< Inv.) Statuse between the devices is greater than 5mml 2MIN+1 Minimum monitoring and recognition of disconnected consumers (relay OFF If I< Inv.) Statuse between the devices is greater than 5mml 2MAX Maximum monitoring and recognition of disconnected consumers (relay OFF If I< Inv.) Maximum monitoring and recognition of disconnected consumers (relay OFF If I< Inv.) 2MAX Maximum monitoring and recognition of disconnected consumers (relay OFF If I< Inv.) Withstand voltage across open contacts: 1000/A resistive load max. 80/min at 100/A resistive l	functions which are selected by means of rotary switch:		Rated voltage:	1250VA (5A / 250V a.c.)
2NINH=C NM Minimum mentoring and recognition of disconnected consumers (relay OF IF I + I) 201.411<	OMIN	Minimum monitoring		
advice the recognition of disconnected consumers (relay OFF if k Inv.) Exercise the consumers (relay OFF if k Inv.) 2MAX Maximum monitoring and recognition of disconnected consumers (relay OFF if k Inv.) With the consumers (relay OFF if k Inv.) With N Maximum monitoring and recognition of disconnected consumers (relay OFF if k Inv.) With and Maximum monitoring and recognition of disconnected consumers (relay ON if k-) With N Monitoring the window between Mix and MAX Preventage category: UII (in accordance with IEC 60664-1) Miximum monitoring and recognition of disconnected consumers (relay OFF if k Inv.) Thesauring category: UV if a k- With ACK+1< INV.				
20.101+1cl nv. Minimum monitoring and recognition of disconnected consumers (relay OFF if L S) Switching capacity: max. 60min at 100VA resistive load (in accordance with IEC 6064-5-1) max. 60min at 100VA resistive load (in accordance with IEC 6064-1) 2MAX+L< DN	ZIVIINTIN ON			
2MAX Maximum monitoring 2MAX+1< ON	2MINHIC Inv			
2MAX Maximum monitoring Intraout and the consumers from the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Intraout and the consumers (relay OFF if I < Introut and the consumeres (relay OFF if I < Intraout and the co	2101111111111		Switching capacity:	
2MAX+I< ON	ZMAY			
disconnected consumers (relay OFF if L inv.) 2MAX+L< Inv. Monitoring the window between MIN and MAX and recognition of disconnected consumers (relay OFF if L inv.) MINMAX Minimum- and maximum monitoring MINMAX+L< Inv. Monitoring the window between MIN and MAX and recognition of disconnected consumers (relay OFF if L inv.) MINMAX+L< Inv. Monitoring the window between MIN and MAX and recognition of disconnected consumers (relay OFF if L inv.) MINMAX+L< Inv. Minimum- and maximum monitoring MINMAX+L< Inv. Minimum- and maximum monitoring MINMAX+L< Inv. Minimum- and maximum monitoring and recognition of disconnected consumers (relay OFF if L inv.) Adjustment range Start-up suppression time: 1s 100s Tripping delay: 0.1s 50s 3. Indicators Green LED UI 0N; effect MID 10 P 072 MINMAX+LE DN. Minimum- diffection of supply voltage disconnected consumers (relay OFF if L inv.) 3. Indicators Green LED UI 0N; effect MID 10 P 072 MINMAX+LE DN. Minimum- diffection of supply voltage disconnected consumers (relay OFF if L inv.) 3. Indicators Green LED UI 0N; effect MID 10 P 072 MINMAX+LE DN. Indication of supply voltage disconnected consumers (relay OFF if L inv.) 3. Indicators Green LED UI 0N; effect MID 10 P 072 MINMAX+LE DN. Indication of supply voltage disconnected consumers (relay OFF if L inv.) 3. Indicators Green LED UI 0N; effect MID 10 P 072 MINMAX+LE DN indication of supply voltage disconnected consumers (relay OFF if L inv.) 4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Mounting postation of disconnected consumers (relay OFF if L inv.) 5. Adjustment range MINMAX is 0.1 to 10 K (relay back if (remaind 11 - 22 M (
2MAX+1< Inv.	ZWAATIN ON		Withstand voltage acro	
 disconnected consumers (relay OFF // Ir (mv) Monitoring the window between MIN and MAX and recognition of disconnected consumers (relay OFF // Ir (N) MIN/MAX MIN/MAX MIN/MAX	2MAX He Inv			1000Veff a.c.
WIN Monitoring the window between MIN and MAX and recognition of disconnected consumers (relay OFF if L< Inv.) Filter surger Voltage: ExV WIN+L< Inv.	ZIVIAA+I< IIIV.		Overvoltage category:	III (in accordance with IEC 60664-1)
WIN+I< ON and recognition of disconnected consumers (relay ON if K) 7. Measuring area P _x , were block with the second of th	14/151		Rated surge voltage:	6kV
and recognition of disconnected consumers (relay OFF if I< Inv.)				
(relay ON if 1 Minimum and maximum monitoring and recognition of disconnected consumers (relay OV if 11 10 to 400Hz MIN/MAX Minimum- and maximum monitoring and recognition of disconnected consumers (relay OV if 11 10 to 100Hz MIN/MAX+i Minimum- and maximum monitoring and recognition of disconnected consumers (relay OV if 11 10 to 100Hz MIN/MAX+i Minimum- and maximum monitoring and recognition of disconnected consumers (relay OFF if 1< Inv.)	WIN+I< ON			
WIN+ik Inv. Monitoring the window between MIN and MAX 2xW, 4kW, 8kW and 16kW MINUMAX Minimum- and maximum monitoring and recognition of disconnected consumers (relay OH if 1k) 10 to 400Hz MINUMAX+i Minimum- and maximum monitoring and recognition of disconnected consumers (relay OH if 1k) 10 to 100Hz MINUMAX+i Minimum- and maximum monitoring and recognition of disconnected consumers (relay OF if 1k Inv.) 10 to 400Hz MINUMAX+i Minimum- and maximum monitoring and recognition of disconnected consumers (relay OF if 1k Inv.) 3-42 to 590/400V 2. Time ranges Adjustment range (relay OF if 1k Inv.) 3-phase load: 3 - 796/480V 3. Indicators Adjustment range 10 to 400Hz 128MZ Start-up suppression time: 1s 100s 128MZ 128MZ Tripping delay: 0.1s 50s -42 to 690/400V 0.4 to 164 (or 1-16A distance >5mm) Overlad capacity: -1, ercognition: 128MZ -42 to 690/400V Tripping delay: 0.1s 50s -42 to 690/400V 0.4 to 164 (or 1-16A distance >5mm) Start-up suppression time: 1s indication of sizonnected consumers indication of false output Rel 1 -42 to 690/40V Red LED Failure ON: indication of sizonnected consumers indication of false output Rel 2				and a second s
and recognition of disconnected consumers (relay OK if it - Inv.) Wave form: A Sinus weighted PVM. 10 to 400Hz MIN/MAX Minimum- and maximum monitoring mecognition of disconnected consumers (relay OK if 1> (relay OK if 1> (re	14/151 + 1 < 1			
(relay OFF if I < Inv.)	vvin+i< inv.			2KVV, 4KVV, 8KVV and 16KVV
MINUMAX Minimum- and maximum monitoring and recognition of disconnected consumers (relay ON if k) Sinus weighted PUML: 10 to 100Hz MINUMAX+I Minimum- and maximum monitoring and recognition of disconnected consumers (relay ON if k) 3-phase load: 3-786/460V MINUMAX+I Inv Minimum- and maximum monitoring and recognition of disconnected consumers (relay OFF if I< Inv.)				10 to 100Hz
MINUMAX+I< ON	MINUMANY			
Initial construction of disconnected consumers (relay ON 1 k) 1-phase load: 3-42 to 690/00 v MIN/MAX+I< Inv.				
MIN/MAX+I Inv Trelay ON IF I MIN/MAX+I Minimum- and maximum monitoring and minimum- and maximum monitoring and cognition of disconnected consumers (relay OFF if I< Inv.)	MIN/MAX+I< ON			
MINMAX+I< Inv:				
recognition of disconnected consumers (relay OFF if I< Inv.)				
(relay OFF if I< Inv.)	MIN/MAX+I< Inv.			
2. Time ranges Adjustment range Measuring range 2kW, 4kW: 0.2 to A Start-up suppression time: 1s 100s 0.4 to 16A (for 1>16A distance >5mm) Tripping delay: 0.1 s 50s 16A permanent 3. Indicators indication of supply voltage 100 s 18A permanent Green LED U/t 0N: indication of supply voltage 16A recognition: 20mA Measuring range 2kW, 4kW: 20mA 20mA Yellow LED Failure ON: indication of failure of the corresponding threshold P1 or P2 10W recognition: 20mA Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 10% to 120% of P _w Switching threshold P1: 10% to 120% of P _w Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P1: 1% to 10% of P _w Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Switching threshold P1: 1% of maximum value of the measuring range Seffectinguishing plastic housin				
2. Time ranges Adjustment range Measuring range 2kW, 4kW: 0.2 to 8A Start-up suppression time: 1 s 100s 0.4 to 16A (or 1>16A (or 1		(relay OFF if I< Inv.)		
2. Time ranges Adjustment range Measuring range 8kW, 16kW: 0.4 to 16A (for >16A distance >5mm) Start-up suppression time: 1s 100s Tripping delay: 0.1 s 50s 3. Indicators indication of supply voltage Overlage acapacity: 18A permanent Green LED U/t 0N: indication of supply voltage - racognition: Power interruption: Green LED U/t flashes: indication of failure of the corresponding threshold P1 or P2 Measuring range 8kW, 16kW: 40mA Vellow LED Failure flashes: indication of relay output Rel 1 Switching threshold P1: 10% to 120% of P _a Vellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P2: 5% to 110% of P _a Vellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Self-extinguishing plastic housing, IP rating IP40 Switching threshold P2: 5% to 110% of P _a Mounted on DIN-Rail TS 35 according to VBG 4 (PZ1 required), Iath (terminal Y1-Y2 bridged) IP rating IP20 Irghtening torque: max. 1Nm Iath (terminal Y1-Y2 bridged) IP rating IP20 1.5 to 2.5 mm² with/without multicore cable end 42 x 0.5 to 1.5 mm² with/without multicore cable e				
Adjustment range Overlad capacity: 18A permanent Start-up suppression time: 1 s 100 s Tripping delay: 0.1 s 50 s 3. Indicators indication of supply voltage Indication of supply voltage Green LED U/t Nt indication of start-up suppression time Measuring range 2kW, 4kW: 200mA Yellow LED I=0 ON/OFF: indication of failure of the corresponding threshold P1 or P2 Measuring range 8kW, 16kW: 400mA Red LED Failure flashes: indication of relay output Rel 1 Switching threshold P1: 10% to 120% of P _n Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P2: 5% to 100% of P _n Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P2: 10% to 120% of P _n Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Switching threshold P2: 10% to 120% of P _n Switching threshold P1: 10% to 120% of P _n Switching threshold P2: 10% to 100% of P _n Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Switching threshold P2: 5% to 10% of P _n Switching threshold P2: Trate surge voltage: 6kV Switching threshold P2: 5% to	2 Time renges			
Start-up suppression time: 1 s 100 s Input resistance: <10mΩ	2. Time ranges	A.17. 1		
Substrate 0.1s 50s Tripping delay: 0.1s 50s Substrate 0.1s 50s Andicators indication of supply voltage indication of start-up suppression time Green LED U/t flashes: indication of failure of the corresponding threshold P1 or P2 Red LED Failure flashes: indication of freilure of the corresponding threshold P1 or P2 5% to 110% of P, Yellow LED Rei 1 ON/OFF: indication of relay output Rei 1 0% rotizing range 2kW, 4kW: 240mA Yellow LED Rei 1 ON/OFF: indication of relay output Rei 1 0% rotizing range 5% to 110% of P, Yellow LED Rei 1 ON/OFF: indication of relay output Rei 1 0% rotizing threshold P1: 10% to 120% of P, Yellow LED Rei 1 ON/OFF: indication of relay output Rei 1 0% rotizing threshold P2: 5% to 110% of P, Subtching threshold P1 72 5% 640% 7% Self-extinguishing plastic housing, IP rating IP40 Numiting position: any Numiting position: any Sochable: normally closed contact in the input circuit Parting IP20 Tightening torque: max. 1Nm Terminal capacity: 1 × 0.5 to 1.5 mm² with/without multicore cable end 2 x 0.5 to 1.5 mm² with/without multicore cab		,		
1. Indicators indication of supply voltage Green LED U/I flashes: indication of start-up suppression time Yellow LED I=0 ON/OFF: indication of failure of the corresponding threshold P1 or P2 indication of ripping delay of the corresponding threshold P1 or P2 relow LED Rel 2 ON/OFF: indication of relay output Rel 1 Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Yellow LED Rel 2 ON/OFF: indication of relay output Rel 1 Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Switching threshold P1: 10% to 120% of P _n Switching threshold P1: 10% to 120% of P _n Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Switching threshold P1: 10% to 120% of P _n Switching threshold P2: 5% to 110% of P _n Water Size Size Size Size Size Size Size Size	Start-up suppression ti		input resistance:	<10m12
3. Indicators Power interruption: Green LED U/t ON: indication of supply voltage Green LED U/t flashes: indication of start-up suppression time Yellow LED I=0 ON/OFF: indication of failer of the corresponding threshold P1 or P2 Red LED Failure ON: indication of failer of the corresponding threshold P1 or P2 Red LED Failure flashes: indication of relay output Rel 1 Vellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Vellow LED Rel 2 ON/OFF: indication of relay output Rel 1 Vellow LED Rel 2 ON/OFF: indication of relay output Rel 1 Vellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Solcharing conserved Solcharing threshold P1: Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Solcharing conserved Solcharing threshold P1: Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Solcharine design Solcharing conserved Solcharine design Solcharing conserved Solcharing torque: max. 1Nm Terminal connection according to VBG 4 (PZ1 required), 1P rating IP20 Tays to 5 to 2.5 mm² with/without multicore cable end Solcharing conserved 1 x 4.5 to 2.5 son 1.5 mm² withi/without multicore cable end <td< td=""><td>Tripping delay:</td><td>0.1s 50s</td><td><- recognition:</td><td></td></td<>	Tripping delay:	0.1s 50s	<- recognition:	
3. Indicators Green LED U/t 0N: indication of supply voltage Green LED U/t 0N: indication of start-up suppression time Measuring range 2kW, 4kW: 200mA Yellow LED 1e1 ON/OFF: indication of start-up suppression time Measuring range 2kW, 4kW: 240mA Yellow LED Failure 0N: indication of failure of the corresponding threshold P1 or P2 Measuring range 2kW, 1kW: 490mA Red LED Failure flashes: indication of relay output Rel 1 Switching threshold P1: 10% to 120% of P _N Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P1: 10% to 120% of P _N Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Switching threshold P1: 10% to 120% of P _N Self-extinguishing plastic housing, IP rating IP40 Overvoltage category: III (in accordance with IEC 60664-1) Mounted on DIN-Rail TS 35 according to VBG 4 (PZ1 required). Function: latch (terminal Y1-Y2 bridged) IP rating IP20 - - Reset: normally closed contact in the input circuit I x 4mm ² without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 2.5 mm ² flexible without multicore cable end 2 x 2.5 mm ² flexible without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x				
3. Indicators Measuring range 2kW, 4kW: 400mA Green LED U/t ON: indication of start-up suppression time indication of faiture of the corresponding threshold P1 or P2 240mA Red LED Failure ON: indication of faiture of the corresponding threshold P1 or P2 Wassuring range 2kW, 4kW: 240mA Yellow LED Rel 1 ON/OFF: indication of fripping delay of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _N Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P2: 5% to 110% of P _N Yellow LED Rel 2 ON/OFF: indication of relay output Rel 1 Overvoltage: 0/evroltage: Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Switching threshold P2: 5% to 110% of P _N Self-extinguishing plastic housing, IP rating IP40 Overvoltage category: III (in accordance with IEC 60664-1) Mounted on DIN-Rail TS 35 according to VBG 4 (PZ1 required), IP rating IP20 Scontrol contact Y (equipotential with measuring circuit) IP rating IP20 normally closed contact in the input circuit 1 x 4mm ² with/without multicore cable end 9. Accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end Adjustmentaccuracy:				V. 4kW: 200mA
Green LED U/t fashes: indication of supply voltage Green LED U/t fashes: indication of sturp suppression time Yellow LED I=0 ON/OFF: indication of failure of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _x Switching threshold P1: 10% to 120% of P _x Switching threshold P2: 5% to 110% of P _x Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Switching threshold P2: 5% to 110% of P _x Yellow LED Rel 2 ON/OFF: indication of relay output Rel 1 Overvoltage category: III (in accordance with IEC 60664-1) Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Self-extinguishing plastic housing, IP rating IP40 Kounting position: any Solution: Iatch (terminal Y1-Y2 bridged) Mounting position: any So to 15.mm² with/without multicore cable end - Reset: normally closed contact in the input circuit 1 x 0.5 to 2.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end - - 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end - - 2 x 0.5 to 1.5mm² with/without multicore cabl				
Green LED U/t flashes: indication of start-up suppression time indication of start-up suppression time indication of failure of the corresponding threshold P1 or P2 Measuring range 2kW, 4kW: 240mA Measuring range 2kW, 4kW: 480mA Red LED Failure ON: indication of failure of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _x Red LED Failure flashes: indication of relay output Rel 1 Overvoltage category: 11% of maximum value of the measuring range Yellow LED Rel 1 ON/OFF: indication of relay output Rel 2 Overvoltage category: 11% of maximum value of the measuring range 4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Mounted on DIN-Rail TS 35 according to VBG 4 (PZ1 required), IP rating IP20 8. Control contact Y (equipotential with measuring circuit) Function: IP rating IP20 Tightening torque: max. 1Nm Terminal capacity: normally closed contact in the input circuit 1 x 4mm ² without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² selectable without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 to 500V a.c. 10. Ambient conditions Ambient temperature: -25 to +55°C (in accordance with UE 508) 12 to 500V Va.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 -25 to +55°C (in accordance with UL 508)				
Red LED Failure ON: indication of failure of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _w Red LED Failure flashes: indication of tripping delay of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _w Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Overvoltage category: 1% of maximum value of the measuring range Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Self-extinguishing plastic housing, IP rating IP40 Soutching threshold P1: Iaccordance with IEC 60664-1) Mounted on DIN-Rail TS 35 according to EN 60715 Nounting position: any Sochrol contact Y (equipotential with measuring circuit) Prating IP20 Trightening torque: max. 1Nm So 5 to 2.5mm² with/without multicore cable end no 1 x 4mm² without multicore cable end X 0.5 to 1.5mm² with/without multicore cable end So 4000000000000000000000000000000000000				V, 4kW: 240mA
threshold P1 or P2 Switching threshold P1: 10% to 120% of P _N Red LED Failure flashes: indication of tripping delay of the corresponding threshold P1 or P2 Switching threshold P1: 10% to 120% of P _N Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Overvoltage category: 11% of maximum value of the measuring range Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Overvoltage category: III (in accordance with IEC 60664-1) Self-extinguishing plastic housing, IP rating IP40 South on the measuring circuit) Function: Iatch (terminal Y1-Y2 bridged) Mounted on DIN-Rail TS 35 according to EN 60715 NotoKproof terminal connection according to VBG 4 (PZ1 required), Iatch (terminal Y1-Y2 bridged) IP rating IP20 Tightening torque: max. 1Nm Seaccuracy: ±2% (of maximum scale value) 1 x 4mm² without multicore cable end Yellow ithout multicore cable end Page accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Yellow ithout multicore cable end Station accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Yellow corresponse: ±0.025% / Hz - 3 kapply voltage: 12 to 500V a.c. terminals A1-A2 (galvanically seperated) -				V, 16kW: 480mA
Red LED Failure flashes: indication of tripping delay of the corresponding threshold P1 or P2 5% to 110% of P _N Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 1% of maximum value of the measuring range Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 0vervoltage category: III (in accordance with IEC 60664-1) A. Mechanical design 8. Control contact Y (equipotential with measuring circuit) Function: latch (terminal Y1-Y2 bridged) Self-extinguishing plastic housing, IP rating IP40 5. Control contact Y (equipotential with measuring circuit) Function: Mounted on DIN-Rail TS 35 according to EN 60715 Control pulse length: - Shockproof terminal connection according to VBG 4 (PZ1 required), Pase accuracy: ±2% (of maximum scale value) IP rating IP20 1 x 0.5 to 2.5mm² with/without multicore cable end 9. Accuracy 1 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 2.5mm² flexible without multicore cable end 2 x 0.25% / Hz 2 x 0.500 V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 -25 to +55°C (in accordance with UC 508)	Red LED Failure ON:			
Note LEP Fundor instruction Interesting threshold P1 or P2 Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Mounted on DIN-Rail TS 35 according to EN 60715 Self-extinguishing logition: any Mounted on DIN-Rail Connection according to VBG 4 (PZ1 required), Image: Self-extinguishing logition: any Prating IP20 Image: Self-extinguishing to the imput direction according to VBG 4 (PZ1 required), IP rating IP20 normally closed contact in the input circuit Terminal capacity: normally closed contact in the input circuit 1 x 0.5 to 2.5mm² with/without multicore cable end self-extinguishing with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end Self-extinguishing with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end Self-extinguishing influence: 2 x 0.5 to 1.5mm² with/without multicore cable end Self-extinguishing influence: 2 x 0.5 to 1.5mm² black induction Terminals A1-A2 (galvanically seperated) Self-extinguesition accordance with UL 508) Self-extinguishing influence: 12 to 500V a.c. terminals A1-A2 (galvanically seperated) Self-extinguishing i				
Yellow LED Rel 1 ON/OFF: indication of relay output Rel 1 Yellow LED Rel 2 ON/OFF: measuring range Yellow LED Rel 2 ON/OFF: indication of relay output Rel 2 Overvoltage category: Rated surge voltage: III (in accordance with IEC 60664-1) 4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Mounted on DIN-Rail TS 35 according to EN 60715 Mounting position: any Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20 8. Control contact Y (equipotential with measuring circuit) Function: latch (terminal Y1-Y2 bridged) Loadable: 1 x 0.5 to 2.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 2.5 tm ² flexible without multicore cable end 2 x 2.5 tm ² flexible without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 10. Ambient conditions Ambient temperature: -25 to +55°C (in accordance with UE 5008-1) -25 to +40°C (in accordance with UE 508)	Red LED Failure flashes			
Yellow LED Rei 2 ON/OFF: Indication of relay output Rei 2 Overvoltage category: Rated surge voltage: III (in accordance with IEC 60664-1) 4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Scontrol contact Y (equipotential with measuring circuit) Mounted on DIN-Rail TS 35 according to EN 60715 Iatch (terminal Y1-Y2 bridged) Mounting position: any Control contact Y (equipotential with measuring circuit) Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20 Pating IP20 Tightening torque: max. 1Nm Base accuracy: ±2% (of maximum scale value) 1 x 0.5 to 2.5mm ² with/without multicore cable end 1 x 4mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² flexible without multicore cable end 2 x 0.5 to 1.5mm ² flexible without multicore cable end 2 x 0.5 to 1.5mm ² sithwithout multicore cable end 2 x 0.5 to 1.5mm ² with/without multicore cable end 2 x 0.5 to 1.5mm ² sithwithout multicore cable end 2 x 0.5 to 1.5mm ² sithwithout multicore cable end 2 x 0.5 to 1.5mm ² flexible without multicore cable end 2 x 0.5 to 1.5mm ² (infuence: - Temperature influence: - 12 to 500V a.c. 10. Ambient conditions Ambient temperature: - 25 to +55°C (in accordance with IEC 60086-1) -25 to +40°C (in accordance with UL 508)			Hysteresis:	
4. Mechanical design 8. Control contact Y (equipotential with measuring circuit) Self-extinguishing plastic housing, IP rating IP40 Function: latch (terminal Y1-Y2 bridged) Mounted on DIN-Rail TS 35 according to EN 60715 control pulse length: no Mounting position: any second terminal connection according to VBG 4 (PZ1 required), normally closed contact in the input circuit IP rating IP20 reminal capacity: normally closed contact in the input circuit 1 x 0.5 to 2.5mm² with/without multicore cable end securacy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition encuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Notege influence: - 2 x 0.5 to 1.5mm² bit/without multicore cable end Repetition encuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² bit/without multicore cable end Seconracy = 2 x 0.5 to 1.5mm² bit/without multicore cable end Repetition encuracy: ±2% (of maximum scale value) 2 to 500V a.c. terminals A1-A2 (galvanically seperated) Seconracy = - Supply voltage: <td>Yellow LED Rel 1 ON/OF</td> <td>F: indication of relay output Rel 1</td> <td>Overveltere estereru</td> <td></td>	Yellow LED Rel 1 ON/OF	F: indication of relay output Rel 1	Overveltere estereru	
4. Mechanical design Self-extinguishing plastic housing, IP rating IP40 Self-extinguishing plastic housing, IP rating IP40 Mounted on DIN-Rail TS 35 according to EN 60715 Iatch (terminal Y1-Y2 bridged) Mounting position: any Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20 Tightening forque: max. 1Nm Terminal capacity: 1 x 0.5 to 2.5mm ² with/without multicore cable end 1 x 4mm ² without multicore cable end Shockproof terminals A1-A2 (galvanically seperated) 2 x 0.500V a.c. terminals A1-A2 (galvanically seperated) 12 to 500V a.c. terminals A1-A2 (balvanically seperated) 12 to 500V a.c. terminals A	Yellow LED Rel 2 ON/OF	F: indication of relay output Rel 2		
Self-extinguishing plastic housing, IP rating IP40 6. Control contact r (equipotential vir measure) Mounted on DIN-Rail TS 35 according to EN 60715 Loadable: no Mounting position: any Control pulse length: no Shockproof terminal connection according to VBG 4 (PZ1 required), Reset: normally closed contact in the input circuit IP rating IP20 Tightening torque: max. 1Nm 9. Accuracy Terminal capacity: 1 x 0.5 to 2.5mm² with/without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 1 x 4mm² without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 2.5mm² flexible without multicore cable end Notage influence: - 2 to 500V a.c. terminals A1-A2 (galvanically seperated) accuracy ≤2 to +55°C (in accordance with UE 508) 2 to 500V a.c. terminals A1-A2 (galvanically seperated) accuracy -25 to +55°C (in accordance with UE 508)			Rateu surge voltage.	0KV
Self-extinguishing plastic housing, IP rating IP40 6. Control contact r (equipotential vir measure) Mounted on DIN-Rail TS 35 according to EN 60715 Loadable: no Mounting position: any Control pulse length: no Shockproof terminal connection according to VBG 4 (PZ1 required), Reset: normally closed contact in the input circuit IP rating IP20 Tightening torque: max. 1Nm 9. Accuracy Terminal capacity: 1 x 0.5 to 2.5mm² with/without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 1 x 4mm² without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 2.5mm² flexible without multicore cable end Notage influence: - 2 to 500V a.c. terminals A1-A2 (galvanically seperated) accuracy ≤2 to +55°C (in accordance with UE 508) 2 to 500V a.c. terminals A1-A2 (galvanically seperated) accuracy -25 to +55°C (in accordance with UE 508)				
Mounted on DIN-Rail TS 35 according to EN 60715 Loadable: no Mounting position: any Control puble length: normally closed contact in the input circuit Shockproof terminal connection according to VBG 4 (PZ1 required), Patient of the connection according to VBG 4 (PZ1 required), normally closed contact in the input circuit IP rating IP20 Tightening torque: max. 1Nm 9. Accuracy see: ±2% (of maximum scale value) 1 x 4mm ² with/without multicore cable end Frequency response: ±0.025% / Hz ±0.025% / Hz 2 x 0.5 to 1.5mm ² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm ² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm ² with/without multicore cable end Notage influence: - 2 x 0.5 to 1.5mm ² get/bet/without multicore cable end Selectable without multicore cable end 20.02% / *C 5. Input circuit Supply voltage: 10. Ambient conditions - 12 to 500V a.c. terminals A1-A2 (galvanically seperated) accordance with UE 60088-1) -25 to +55°C (in accordance with UL 508) cut accurace -25 to +40°C (in accordance with UL 508) -25 to +50°C			8. Control contact Y (equi	potential with measuring circuit)
Mounting position: any Control pulse length: - Shockproof terminal connection according to VBG 4 (PZ1 required), Reset: - IP rating IP20 - - Tightening torque: max. 1Nm 9. Accuracy Base accuracy: ±2% (of maximum scale value) 1 x 0.5 to 2.5mm² with/without multicore cable end Frequency response: ±0.025% / Hz 2 x 0.5 to 1.5mm² with/without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Voltage influence: - 2 x 0.5 to 1.5mm² with/without multicore cable end Note accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Note accuracy: ±2% (of maximum scale value) 2 x 0.5mm² flexible without multicore cable end Note accuracy: ±2% (of maximum scale value) 2 x 0.5mm² flexible without multicore cable end Note accuracy: ±2% (of maximum scale value) 2 to 500V a.c. terminals A1-A2 (galvanically seperated) ambient temperature: -25 to +55°C (in accordance with UL 508) 2 to 500V a.c. terminals A1-A2 (galvanically seperated)				
Shockproof terminal connection according to VBG 4 (PZ1 required), Reset: normally closed contact in the input circuit IP rating IP20 Tightening torque: max. 1Nm 9. Accuracy Terminal capacity: 1 x 0.5 to 2.5mm² with/without multicore cable end 9. Accuracy 1 x 4mm² without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 2.5mm² flexible without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 2.5mm² flexible without multicore cable end Prequency response: ±0.025% / Hz 2 to 5 to 1.5mm² thexible without multicore cable end Prequency response: ±2% (of maximum scale value) 2 to 500V a.c. terminals A1-A2 (galvanically seperated) Suejectable via power module type TR3 10. Ambient conditions Ambient temperature: -25 to +55°C (in accordance with UE 508) -25 to +40°C (in accordance with UE 508)		S 35 according to EN 60715		no
Sinception terminal connection according to VBG 4 (P2 T required), IP rating IP20 Tightening torque: max. 1Nm 1 x 0.5 to 2.5mm² with/without multicore cable end 1 x 4mm² without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 x 0.5 to 1.5mm² with/without multicore cable end 2 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3	Mounting position: any			-
Tightening torque: max. 1Nm 9. Accuracy Terminal capacity: 1 x 0.5 to 2.5mm² with/without multicore cable end Base accuracy: ±2% (of maximum scale value) 1 x 4mm² without multicore cable end Adjustment accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Notice 5. (of maximum scale value) 2 x 2.5mm² flexible without multicore cable end Notice - 2 x 2.5mm² flexible without multicore cable end Notice - 2 x 0.5 to 1.5mm² with/without multicore cable end Notice - 2 x 0.5 to 1.5mm² with/without multicore cable end Notice - 2 to 500V a.c. terminals A1-A2 (galvanically seperated) Selectable via power module type TR3 -25 to +55°C (in accordance with UE 60068-1) (in accordance with UE 508)		nection according to VBG 4 (PZ1 required),	Resel.	normally closed contact in the input circuit
Terminal capacity: Base accuracy: ±2% (of maximum scale value) 1 x 0.5 to 2.5mm² with/without multicore cable end Frequency response: ±0.025% / Hz 1 x 4mm² without multicore cable end Adjustment accuracy: ±5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% 2 x 2.5mm² flexible without multicore cable end Voltage influence: - 2 x 2.5mm² flexible without multicore cable end Voltage influence: - 5. Input circuit - - - Supply voltage: 10. Ambient conditions - -25 to +55°C (in accordance with UE 60068-1) (in accordance with UE 508) 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 -25 to +55°C (in accordance with UE 508) -25 to +40°C (in accordance with UE 508)	IP rating IP20			
Terminal capacity: Base accuracy: ±2% (of maximum scale value) 1 x 0.5 to 2.5mm² with/without multicore cable end Frequency response: ±0.025% / Hz 1 x 4mm² without multicore cable end Adjustment accuracy: ±5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% 2 x 2.5mm² flexible without multicore cable end Repetition accuracy: ±2% 2 x 2.5mm² flexible without multicore cable end Voltage influence: - 5. Input circuit - - - Supply voltage: 10. Ambient conditions - -25 to +55°C 12 to 500V a.c. terminals A1-A2 (galvanically seperated) -25 to +55°C - selectable via power module type TR3 -25 to +40°C (in accordance with UE 508) -25 to +40°C (in accordance with UE 508)	Tightening torque: max.	1Nm	9. Accuracy	
1 x 0.5 to 2.5mm² with/without multicore cable end Frequency response: ±0.025% / Hz 1 x 4mm² with/without multicore cable end Adjustment accuracy: ≤5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ≤5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ≤5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Voltage influence: - 5. Input circuit Supply voltage: - 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 -	Terminal capacity:			±2% (of maximum scale value)
1 x 4mm² without multicore cable end Adjustment accuracy: ≤5% (of maximum scale value) 2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% 2 x 2.5mm² flexible without multicore cable end Yoltage: - 2 x 0.5 to 1.5mm² with/without multicore cable end Yoltage: - 2 x 2.5mm² flexible without multicore cable end Yoltage: - 5. Input circuit Temperature influence: - Supply voltage: 10. Ambient conditions -25 to +55°C 12 to 500V a.c. terminals A1-A2 (galvanically seperated) -25 to +40°C (in accordance with UL 508)	1 x 0.5 to 2.5mm ² with/without multicore cable end			
2 x 0.5 to 1.5mm² with/without multicore cable end Repetition accuracy: ±2% 2 x 2.5mm² flexible without multicore cable end Voltage influence: - 5. Input circuit Temperature influence: - 5. loput circuit 10. Ambient conditions - 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 10. Ambient conditions	1 x 4mm ² without multicore cable end			
2 x 2.5mm² flexible without multicore cable end Voltage influence: Temperature influence: ≤0.02% / °C 5. Input circuit Supply voltage: 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 4. Ambient conditions Ambient temperature: -25 to +55°C (in accordance with UL 508)				
5. Input circuit Supply voltage: 10. Ambient conditions 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 10. Ambient conditions				2
5. Input circuit Supply voltage: 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3	2 / 2/0/10/0			≤0.02% / °C
Supply voltage: 10. Ambient conditions 12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 -25 to +55°C (in accordance with UL 508)			en e	
12 to 500V a.c. terminals A1-A2 (galvanically seperated) selectable via power module type TR3 Ambient temperature: -25 to +55°C (in accordance with UL 508)				
selectable via power module type TR3 -25 to +40°C (in accordance with UL 508)				
selectable via power module type TR3 -25 to +40°C (in accordance with UL 508)	12 to 500V a.c.		Ambient temperature:	
				-25 to +40°C (in accordance with UL 508)
Tolerance: according to specification of power module Storage temperature: -25 to +70°C	Tolerance:	according to specification of power module		-25 to +70°C
Rated frequency: according to specification of power module Transport temperature: -25 to +70°C	Rated frequency:			
Rated consumption: 3.5VA (3W) Relative humidity: 15% to 85% (in accordance with IEC 60721-3-3	Rated consumption:	3.5VA (3W)	Relative numidity:	

Pollution degree: Vibration resistance: Shock resistance:

Rated consumption: Duration of operation: Reset time: 500ms Ripple and noise: Drop-out voltage: Overvoltage category: Rated surge voltage: 6kV

3.5VA (3W) 100%

>30% of the supply voltage III (in accordance with IEC 60664-1)

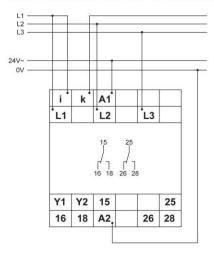
15% to 85% (in accordance with IEC 60721-3-3 class 3K3) 2 (in accordance with EN 60255-27) class 1 (in accordance with EN 60255-22-1) class 1 (in accordance with EN 60255-22-2)

RACO International, L.P.

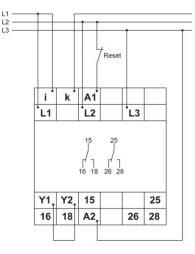


Connections

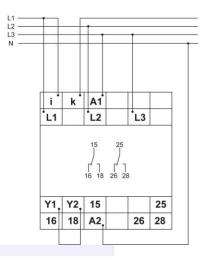
Connected 3~ 400/690V with power module 24V a.c. without fault latch $\rm I_{\rm N}{<}16A$



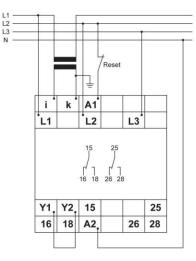
Connected 3~ 500V with power module 500V a.c. with fault latch IN<16A



Connected 3~ 230/400V with power module 230V a.c. with fault latch I, <16A



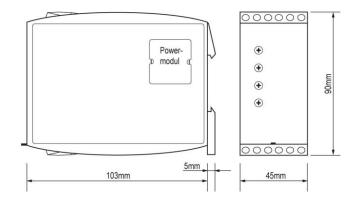
Connected 3~ 400/690V with power module 400V a.c. with fault latch and current transformer IN>16A



Note:

Before working on current transformer circuits, these shall be shortcircuited.

Dimensions

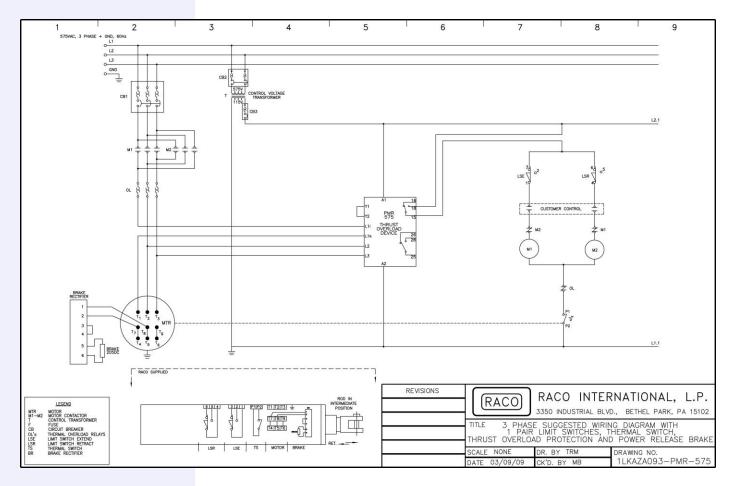


RACO International, L.P. 3350 Industrial Blvd., Bethel Park PA 15102, Tel: 412-835-5744, Fax: 412-835-0338, web: www.racointernational.com



Wiring Diagram

Example



Thrust Overload Protection via Power Monitoring

RACO International, L.P. 3350 Industrial Blvd., Bethel Park PA 15102, Tel: 412-835-5744, Fax: 412-835-0338, web: www.racointernational.com