REVERSE POWER

PROTECTOR TRIP RELAYS

KEY FEATURES

- LED fault indication
- Adjustable nominal voltages, trip points, time delay and differentials
- Compact DIN-rail enclosure
- Power on LED (Green)
- Designed to avoid nuisance tripping

TE Connectivity's (TE) Crompton Instruments Reverse Power is a protector trip relay that monitors single- or three-phase supplies for reverse power and trips when detecting reverse power (I x cos ø) over a set limit.

The Reverse Power trip relay provides continuous surveillance of AC generators against motoring. Reverse power relays are used to detect the failure of the prime mover (engine) when active energy (Watts) flows into the generator causing rotation - the set will operate like an electric motor which can cause significant mechanical damage. This relay offers an adjustable reverse power set between 2% and 20% of the nominal power and time delay adjustment range of 0 to 20 seconds.

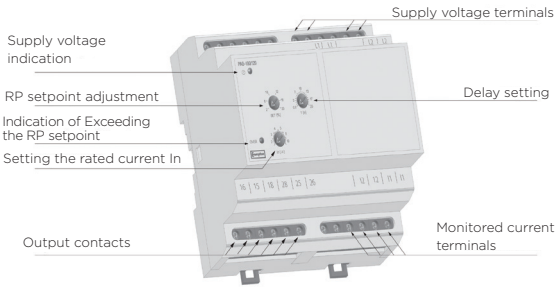
The protector relay estimates the power level in the system by measuring current and power factor but does not actually measure the system voltage. When the reverse power level exceeds the set point, and after the time delay has elapsed, the relay will energize, and the red LED will illuminate to indicate the trip condition. The relay will automatically reset once the power level falls below the set point minus the fixed differential of 1% causing the LED to extinguish and the relay to de-energize.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

SPECIFICATION

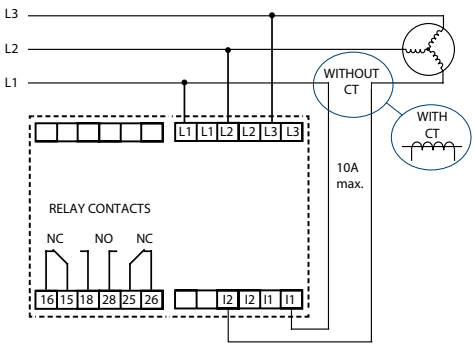
Technical parameters	PAT-100/120	PAT-173/240	PAT-380/480	PAS-100/120	PAS-173/240	PAS-380/480
Reverse power (energise on trip):	•	•	•	•	•	•
System type:	3-phase 3-wire (3-)	3-phase 3-wire (3-)	3-phase 3-wire (3-)	1-phase, 3-phase 4-wire (3-)	1-phase, 3-phase 4-wire (3-)	1-phase, 3-phase 4-wire (3-)
Voltage input terminals:	L1, L2, L3			L1, N		
Current input terminals:	I1, I2					
Rated voltage Un (V nom):	100 - 120	173 - 240	380-480	57.7-69.3	100-139	220-277
Rated current In (A):	2A, 3A, 4A, 5A, 8A, 10A					
Operating frequency:	45-65 Hz					
Supply input burden (max):	2.5VA/ 1.5W approx	4.2VA/ 3.2W approx	6VA/4W approx	1.4VA/ 1W approx	1.6VA/ 1.3W approx	2.9VA/ 2.1W approx
Monitored current range:	2..100% In					
Monitored cos ø range:	0.2 inductive to 0.2 capacitive					
Reverse power setpoint range:	2..20% (cos Ø=1)					
Differential (hysteresis):	Fixed at 1%					
Trip reset:	Adjustable 0.5-20s					
Overload capacity -continuous: -max. 10s:	3 x 150V 3 x 180V	3 x 300V 3 x 360V	3 x 600V 3 x 720V	87V 104V	174V 209V	346V 416V
Opening level (Uopen):	3 x 60V	3 x 104V	3 x 228V	35V	60V	132V
Output relay-contact:	2x change over (AgNi) plated					
Output relay-contact terminals:	15, 16, 18 & 25, 26, 28					
Load capacity AC:	250V/8A, max.2 kVA					
Load capacity DC:	30V/8A					
Mechanical life:	$3x10^6$ by rated load					
Relay reset:	Automatic					
ANSI no.:	32					
Operating temperature:	-20 +55°C					
Storage temperature:	-30 +70°C					
Insulation:	4kV/1min.					
Overvoltage category:	III.					
Pollution degree:	2					
Enclosure integrity:	IP40 from the front panel/IP20 terminals					
Enclosure style:	DIN-rail, 6 module					
Case material:	Flame retardant polycarbonate					
Connecting conductors profile (mm^2):	max.2x1.5mm^2/1x2.5mm^2					
Dimensions:	H90xW105xD64mm					
Weight:	298g approx	340g approx	338g approx	248g approx	269g approx	268g approx
Standards:	EN 60255-6, EN 60255-27, EN 61000-6-2, EN 6100-6-4					

PROTECTOR OVERVIEW



PAT & PAS

CONNECTION



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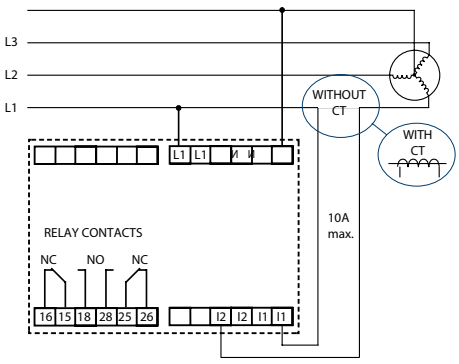

PAS

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