



## SYNCHRO-CHECK 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 synchro-check (paralleling) protector trip relay compares the voltage, frequency and phase angle of two supplies and operates a relay according to the state of synchronization of the supplies. If the two supplies are not synchronized, the relay operates to provide a control output. The relay output can be used for alarm or control purposes.

As part of an automatic synchronizing arrangement, the synchro-check (paralleling) trip relay can be used as an independent backup or checking device to ensure the two systems are suitably matched before the breaker can close.

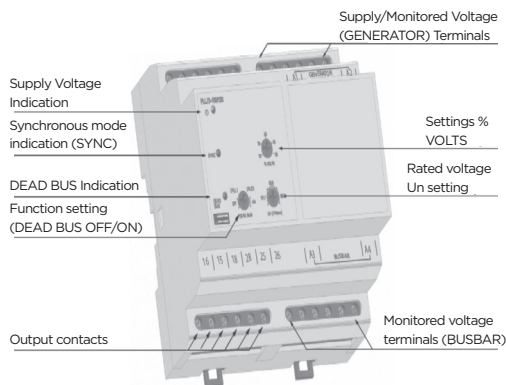
The relay is fitted with a selectable Dead Bus detection function. If there is a requirement for a continuous supply or emergency power, then the generator can be connected without synchronizing, thus ensuring continuity of supply. The absence of the bus voltage will cause the relay to energize.

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

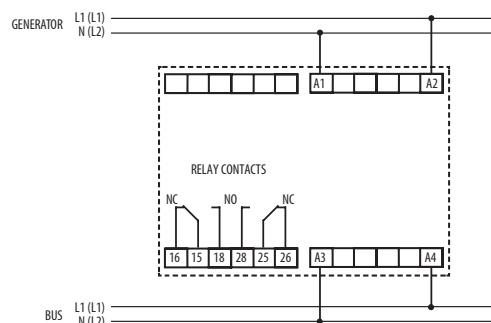


SPECIFICATION				
Technical parameters	PLL/D-100/120	PLL/D-173/240	PLL/D-380/480	PLL/D-277/500
Phase angle and voltage dead bus option (energise on trip):	.	.	.	.
System type:	1-phase (1-), 3-phase 4-wire (3-)			
Input terminals (generator):	A1, A2			
Input terminals (busbar):	A3, A4			
Rated voltage Un (V nom) L-N:	57.7, 63.5, 69.3	100, 110, 115, 120, 127, 139	220, 230, 240, 254, 265, 277	277, 300, 380, 400, 415, 440, 480, 500
Operating frequency:	45-65 Hz			
Supply input burden (max):	2VA/1.6W approx	2.7VA/1.7W approx	4VA/2.2W approx	5 VA/2.8W approx
Dead bus on Udbon:	25% Uon			
Dead bus off Udboff:	50% Uon			
Sync tolerance adjustable:	10-30% volts			
Overload capacity -continuous:	87V	174V	346V	600V
-max. 10s:	104V	209V	416V	700V
Opening level (Uopen):	35V	60V	132V	166V
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 <sup>6</sup> by rated load			
Relay reset:	Automatic			
ANSI no.:	25			
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 <sup>2</sup> ):	max.2x1.5mm <sup>2</sup> /1x2.5mm <sup>2</sup>			
Dimensions:	H90xW105xD64mm			
Weight:	291g approx	335g approx	332g approx	335g approx
Standards:	EN 60255-6, EN 60255-27, EN61000-6-2, EN6100-6-4			

PROTECTOR OVERVIEW PLL/D



CONNECTION PLL/D



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