

Protection Relays WTCPR900-3

35mm wide
Rail Mount



Features:

- Under current, Over current protection
- Current asymmetry protection (for 3Ø systems only)
- RMS value measurement
- Power ON delay, Trip time delay and Delay on release
- Adjustable switching hysteresis
- One alarm relay with NC or NO operation selectable

Technical Specifications

Display

Display	Liquid Crystal Display
Digits	3

Input Specifications

Functions	
Measurements	Current, Current Asymmetry
Time Settings	Power ON delay, response delay, delay on release
Alarm Indications	Trip
Latching	Selectable
Reset	Auto / Manual
Network	
AC network	1Ø-2W 3Ø-3W 3Ø-4W
Auxiliary Supply	
Supply Voltage (factory set)	110V / 230V AC ±15%
Frequency	45 - 65Hz
VA Rating	12VA max
CT Settings	
CT Primary	1A/5A - 999A
CT Secondary	1A / 5A (selectable)
Current Rating	
Measuring Range (RMS Value)	0 - 1.19kA
Trip Settings	
Under Current Protection	0 - 999A
Over Current Protection	0.5A - 1.19kA
Current Asymmetry	5.0 - 99.9% A
Delay	
Power ON Delay	0.5 - 99.9sec
Trip Time Delay	0 - 99.9sec
Delay on Release	0 - 99.9sec
Response Time	<200ms

Hysteresis

Current	0.1 - 99.9A (Depends on CT Setting)
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Resolution

Current	0.01, 0.1, 1A, 0.01kA (Depends on CT Setting)
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Accuracy

Current	±1% of CT Setting, ±2 digits
Time (Recovery Time, Trip delay, Power ON Delay)	±5% of CT Setting + 200ms

Output Specifications

No. of Relays	1
Type of output	1C/O (SPDT)
Relay Rating	NO : 5A, 250V AC NC : 3A, 250V AC

LED Indication

LED1 (Green)	Power ON
LED2 (Red)	Trip

Environmental Specifications

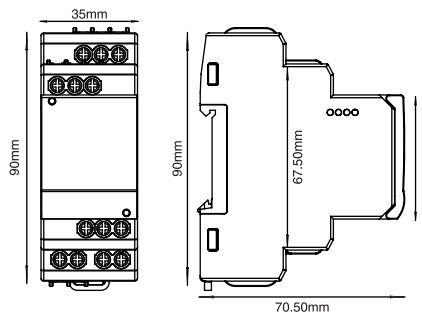
Temperature	Operating Temperature: 0°C to +50°C Storage Temperature : -20°C to +70°C
Humidity (non-condensing)	Upto 95% RH
Pollution Degree	2
Degree of protection	IP50 Faceplate IP30 Housing IP20 Terminals

Protection Relays WTCPR900-3

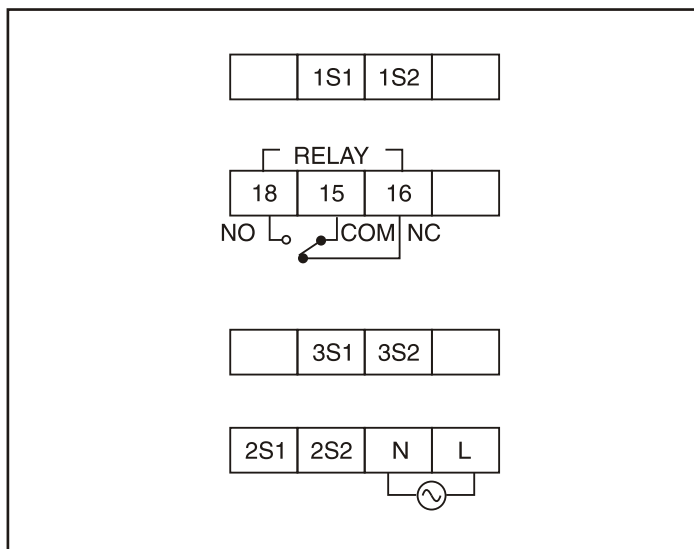
Mechanical Specifications

No. of Push Button	3
Size	35mm width
Mounting	Din Rail Mount
Weight	146 g
Conductor cross section (Solid)	1 x (0.5 to 4) Sq mm
Conductor cross section sleeved (Stranded)	2 x (0.5 to 1.5) Sq mm 1 x (0.5 to 2.5) Sq mm
Screw tightening torque	0.5 Nm

Dimensions



Terminal Connections



Ordering Information

Part No.	Supply Voltage	Ref.No.
WTCPR900-3-110V	110V AC	W605448
WTCPR900-3-230V	230V AC	W605449

Protection Relays WTCPR900-1-1-BL



Features:

- 1Ø - 2 Wire Input
- Monitors Under current & Over current
- True RMS measurement
- Power ON delay, Trip time delay and Recovery time delay
- Adjustable switching hysteresis
- One alarm relay with NC or NO operation selectable
- LCD with backlight
- DIN Rail Mount

Size: 35mm (Width)

Certifications:  RoHS

Technical Specifications

Display

Display	Liquid Crystal Display with backlight
Digits	3

Input Specifications

Functions	
Measurements	Under current and Over current
Time Settings	Power ON delay, Trip time delay, Recovery time delay
Alarm Indications	Trip
Latching	Selectable
Reset	Auto / Manual (Selectable)
Electrical Connection	
	1Ø-2 wire
Auxiliary Supply	
Supply Voltage	230V AC; ±15%
Frequency	45 - 65Hz
VA Rating	15VA max.
CT Settings	
CT Primary	1A/5A - 999A (selectable)
CT Secondary	1A / 5A (selectable)
Current Rating	
Measuring Range (RMS Value)	0 - 1.19kA
Trip Settings	
Under Current	0 - 999A
Over Current	0.5A - 1.19kA
Trip Time Settings	
Power ON Delay	0.5 - 99.9sec
Trip Time Delay	0 - 99.9sec
Recovery Time Delay	0 - 99.9sec (In auto reset mode)
Response Time	<200ms

Hysteresis

Current 0.1 - 99.9A

Resolution

Current 0.01, 0.1, 1A, 0.01kA (depends on CT setting)

Accuracy

Current ±1% of Setting ±2 digits
Time Setting Accuracy ±5% of Setting ± 200ms

Output Specifications

No. of Relays	1
Type of output	1C/0 (SPDT)
Relay Rating	NO : 5A, 250V AC NC : 3A, 250V AC

LED Indication

LED1 (Red)	Relay (Continuously ON after trip)
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Environmental Specifications

Temperature	Operating Temperature: 0°C to +50°C Storage Temperature : -20°C to +70°C
Humidity (non-condensing)	Upto 95% RH
Pollution Degree	2
Degree of protection	IP50 Faceplate IP30 Housing IP20 Terminals

Protection Relays WTCPR900-1-1-BL

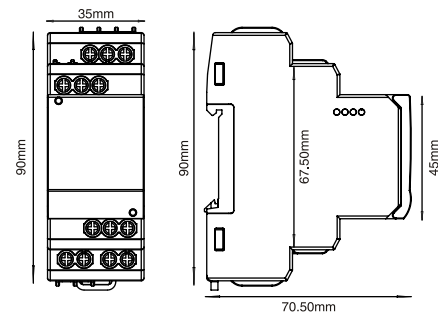
Mechanical Specifications

No. of Push Button	3
Size	35mm (width)
Mounting	Din Rail Mount
Weight	130gms
Conductor cross section (Solid)	1 x (0.5 to 4) Sq mm
Conductor cross section sleeved (Stranded)	2 x (0.5 to 1.5) Sq mm 1 x (0.5 to 2.5) Sq mm
Screw tightening torque	0.5 Nm

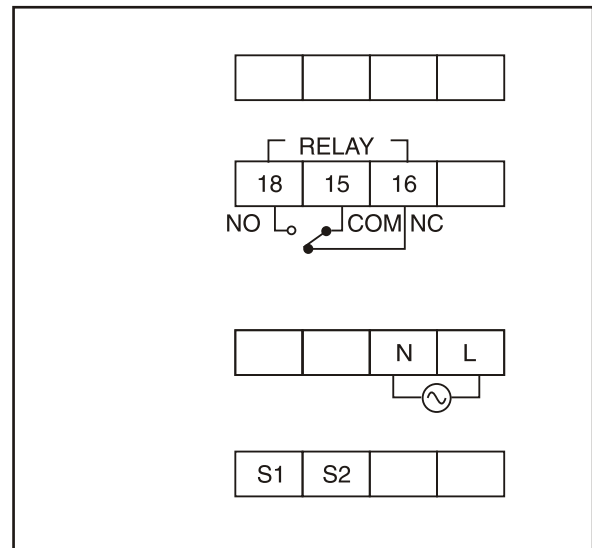
EMC

Electromagnetic compatibility	IEC 61326-1
ESD Immunity: IEC 61000-4-2	Level III
Surge Immunity: IEC 61000-4-5	+/- 2 kV common mode, +/- 1 kV differential mode
Radiated Susceptibility: IEC 61000-4-3	Level III, 80 to 1000MHz Level II, 1GHz to 2GHz Level I, 2GHz to 2.7GHz
Conducted Susceptibility: IEC 61000-4-6	Level II
Voltage Dips and Interruption: IEC 61000-4-11	Dips: 0% residual voltage/1 cycle (Crit A), 40% residual voltage/10 cycles 50 Hz / 12 cycles 60 Hz (Crit A) 70% residual voltage / 25 cycles 50 Hz / 30 cycles 60 Hz (Crit C) Interruptions: 0% residual voltage / 250 cycles 50 Hz / 300 cycles 60 Hz (Crit C)
Conducted Emissions	CISPR-11 & IEC 61000-6-3
Radiated Emissions	CISPR-11
Electrical Fast Transient: IEC 61000-4-4	Level 3.

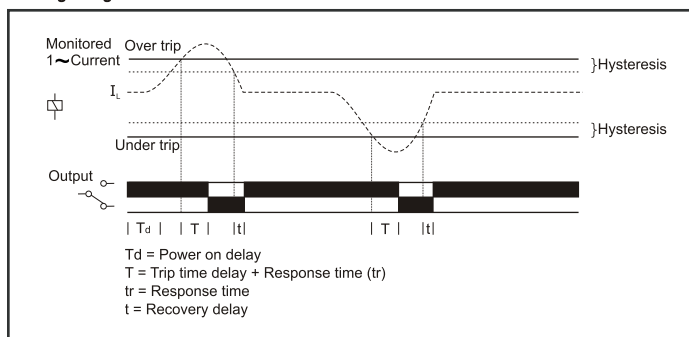
Dimensions



Terminal Connections



Timing Diagram



Ordering Information

Part No.	Supply Voltage	Ref.No.	Certification
WTCPR900-1-1-BL	230V AC	W605450	CE RoHS

Protection Relays WT900VPR-2



35mm wide
Rail Mount

Technical Specifications

Display

Display	Liquid Crystal Display
Digits	3

Input Specifications

Functions	
Measurements	Voltage (V_{L-N} , V_{L-L}), Frequency, Phase Asymmetry, Phase Failure, Phase Sequence
Time Setting	Power ON delay, Trip time delay and Delay on release
Alarm Indications	Trip
Latching	Selectable
Reset	Auto / Manual reset
Electrical Connection	
3Ø-3 wire, 3Ø-4 wire	
Auxiliary Supply	
Supply Voltage	Self powered
Operating Range	280 - 520V AC (L-L) 160 - 300V AC (L-N)
VA Rating	30VA max.
Frequency	45 - 65Hz
Measuring Range	
(RMS Value)	0 - 520V AC (L-L)* 0 - 300V AC (L-N)*
Trip Settings	
Under Voltage	280 to 520V AC (L-L) [for 3Ø-3 wire] 160 to 300V AC (L-N) [for 3Ø-4 wire]
Over Voltage	280 to 520V AC (L-L) [for 3Ø-3 wire] 160 to 300V AC (L-N) [for 3Ø-4 wire]
Under Frequency	45 - 65Hz
Over Frequency	45 - 65Hz
Phase Failure	Yes
Phase Sequence	Yes
Phase Asymmetry	5.0 - 99.9%

* For 3Ø-3W, at least 2 phase must be present ; * For 3Ø-4W, at least 1 phase must be present

Features:

- Under voltage, over voltage, under frequency, over frequency, asymmetry, phase failure and phase sequence monitoring in 3Ø system
- RMS measurement
- Power ON delay, Trip time delay and Delay on release
- Adjustable switching hysteresis
- Two separate alarm relays

Certifications: 

Input Specifications

Trip Time Settings	
Power ON Delay	2 - 99.9sec
Trip Time Delay	0 - 99.9sec
Delay on Release	0 - 99.9sec
Response Time	< 200ms
Hysteresis	
Voltage	1.0 - 99.9V
Frequency	0.2 - 2Hz
Asymmetry	2 - 20%
Resolution	
Voltage	1V
Frequency	0.1Hz
Accuracy	
Voltage	±1%
Frequency	±0.3Hz
Time (Recovery Time, Trip Delay, Power ON Delay)	±5% of setting + 200ms

Output Specifications

No. of Relays	2
Type of output (Relay1)	1C/O (SPDT)
Type of output (Relay2)	1C/O (SPDT)
Relay Rating	NO : 5A @ 250V AC NC : 3A @ 250V AC

LED Indication

LED1 (Green)	Power ON
LED2 (Red)	Relay1 (Continuously ON after trip)
LED3 (Red)	Relay2 (Continuously ON after trip)

Protection Relays

WT900VPR-2

Environmental Specifications

Ambient Temperature	Operating Temperature: 0°C to 50°C Storage Temperature : -20°C to +70°C
Humidity (non-condensing)	95% RH
Pollution Degree	2
Degree of protection	IP50 Faceplate IP30 Housing IP20 Terminals

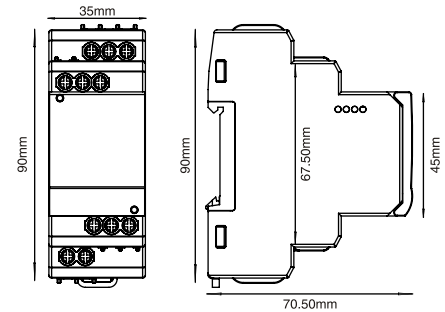
Mechanical Specifications

No. of Push Button	3
Size	35mm width
Mounting	Din Rail Mount
Weight	135 g
Conductor cross section (Solid)	1 x (0.5 to 4) Sq mm
Conductor cross section sleeved (Standard)	2 x (0.5 to 1.5) Sq mm 1 x (0.5 to 2.5) Sq mm
Screw tightening torque	0.5 N-M

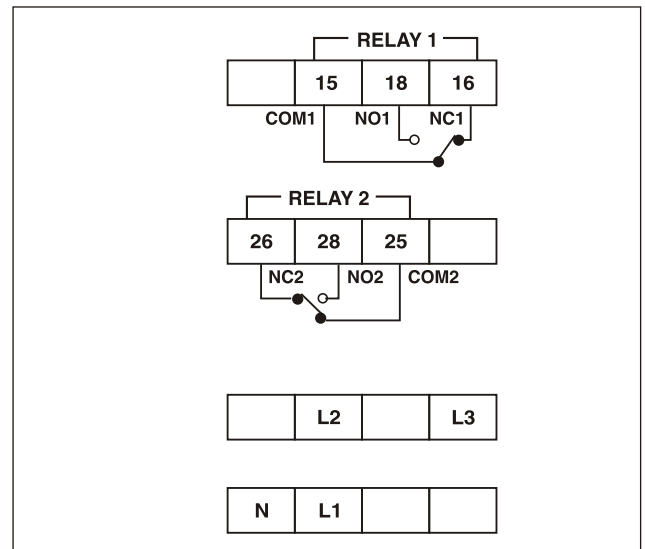
EMC

Electromagnetic compatibility	IEC 61326-1
ESD Immunity: IEC 61000-4-2	Level III
Surge Immunity: IEC 61000-4-5	+/- 2 kV common mode, +/- 1 kV differential mode
Radiated Susceptibility: IEC 61000-4-3	Level III, 80 to 1000 MHz
Conducted Susceptibility: IEC 61000-4-6	Level II
Voltage Dips and Interruption: IEC 61000-4-11	Dips: 0% residual voltage/1 cycle (Crit B.), 40% residual voltage/10 cycles 50 Hz / 12 cycles 60 Hz (Crit C) 70% residual voltage / 25 cycles 50 Hz / 30 cycles 60 Hz (Crit C) Interruptions: 0% residual voltage / 250 cycles 50 Hz / 300 cycles 60 Hz (Crit C)
Conducted Emissions	CISPR-11 & IEC 61000-6-3
Radiated Emissions	CISPR-22
Electrical Fast Transient: IEC 61000-4-4	Level 3.

Dimensions



Terminal Connections



Ordering Information

Part No.	Ref.No.	Supply Voltage	Certification
WT900VPR-2-280/520V	W605507	280-520V AC	CE Yes