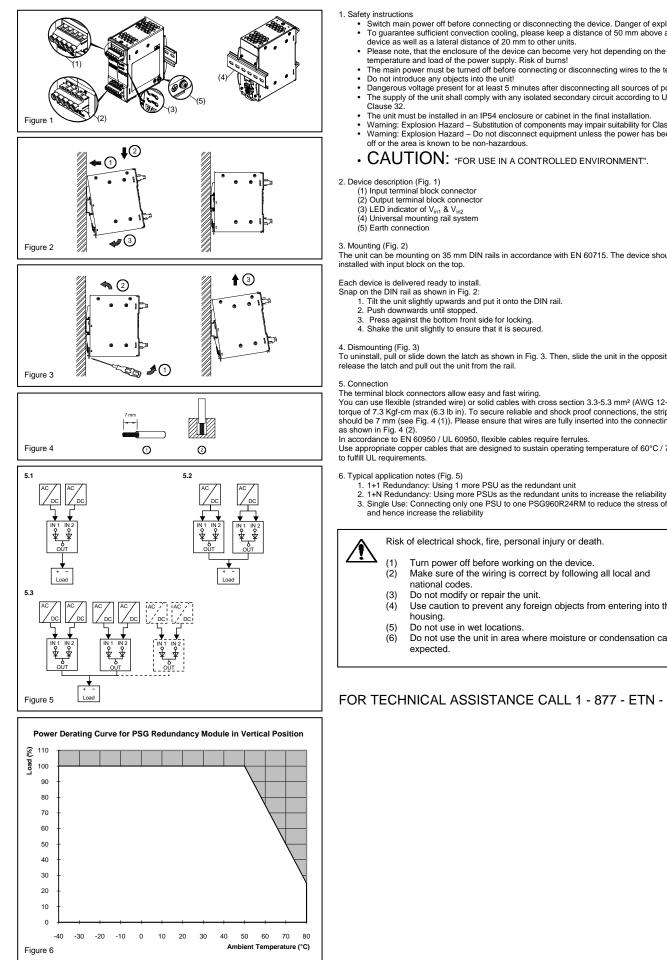


Installation Instructions for PSG960R24RM REDUNDANCY MODULE

READ INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS DEVICE. KEEP FOR FUTURE REFERENCE.



- Switch main power off before connecting or disconnecting the device. Danger of explosion! To guarantee sufficient convection cooling, please keep a distance of 50 mm above and below the
- Please note, that the enclosure of the device can become very hot depending on the ambient
- temperature and load of the power supply. Risk of burns! The main power must be turned off before connecting or disconnecting wires to the terminals! Do not introduce any objects into the unit!
- Dangerous voltage present for at least 5 minutes after disconnecting all sources of power. The supply of the unit shall comply with any isolated secondary circuit according to UL 508,
- The unit must be installed in an IP54 enclosure or cabinet in the final installation
- Warning: Explosion Hazard Substitution of components may impair suitability for Class I, Division 2. Warning: Explosion Hazard Do not disconnect equipment unless the power has been switched off or the area is known to be non-hazardous
- CAUTION: "FOR USE IN A CONTROLLED ENVIRONMENT".

The unit can be mounting on 35 mm DIN rails in accordance with EN 60715. The device should be

To uninstall, pull or slide down the latch as shown in Fig. 3. Then, slide the unit in the opposite direction,

The terminal block connectors allow easy and fast wiring. You can use flexible (stranded wire) or solid cables with cross section 3.3-5.3 mm² (AWG 12-10) and torque of 7.3 Kgf-cm max (6.3 lb in). To secure reliable and shock proof connections, the stripping length should be 7 mm (see Fig. 4 (1)). Please ensure that wires are fully inserted into the connecting terminals as shown in Fig. 4 (2).

In accordance to EN 60950 / UL 60950, flexible cables require ferrules. Use appropriate copper cables that are designed to sustain operating temperature of 60°C / 75°C or more

- Single Use: Connecting only one PSU to one PSG960R24RM to reduce the stress of the diodes and hence increase the reliability

Risk of electrical shock, fire, personal injury or death.

- Turn power off before working on the device.
 - Make sure of the wiring is correct by following all local and
- Use caution to prevent any foreign objects from entering into the
- Do not use in wet locations.
- Do not use the unit in area where moisture or condensation can be

FOR TECHNICAL ASSISTANCE CALL 1 - 877 - ETN - CARE



Tested @ Max. Load with 25°C ambient and 24 VDC & 48 VDC input Belay contact (max.) Dimensions (L x W x H) 121 mm x 50 mm x 122 mm Operating temperature Connection method Screw connection Stripping length 7 mm Operating temperature (surrounding air temperature) 40°C to +80°C (Refer to Fig. 6) Storage temperature (surrounding air temperature) 40°C to +80°C Humidity at +25°C, no condensation Vibration (non-operating) 10 to 500 Hz @ 30 m/s² (3 G peak); displacement of 0.35 mm; 60 min. per axis fo all X, Y. Z directions in acc. with IEC 60068-2-67 Altitude (operating) 2,500 Meters Pollution degree Certification and Standards Electrical equipments of machines EleC 60204-1 Electrical equipment for use in electrical power installations Shork (in all directions according to IEC 60068-2-27 Altitude (operating) Distandards	FECHNICAL DATA FOR PSG960R24RM	
Nominal input 24 VDC Voltage range 22 40 VDC (For UL 508) Input current (1+1 Redundancy) = Nom. 226 Amps, See 5.1 (N+1 Redundancy) = Nom. 226 Amps, See 5.2 (N+1 Redundancy) = Nom. 226 Amps, See 5.2 (Input voltage alarm) 24 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm 42 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm 42 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm 42 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm 42 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm 40 Nax. Output voltage alarm 49 V system: Tob NV rs. Vs.2 SW vs.25 Nor 4.60 V max. Output voltage alarm Vs.2 25 NV toC. Max. Load Voltage drop 0.65 V Filtedony > 87 Orb Np. Short dircut! < 87 Orb Np. Short dirs. Sa 0		
Vallage rånge 22-60 VDC (For UL 598) Input Lurrent (141 Redundnacy) = Nom. 3220 Amps, See 5.1 Input vallage alarm 24 V system: both V _m 8 V _{w2} > 180 ±35% or < 80 V max. Output (ICC) 49 V system: both V _m 8 V _{w2} > 180 ±35% or < 80 V max. Output (ICC) 49 V system: both V _m 8 V _{w2} > 180 ±35% or < 80 V max. Output (ICC) 49 V system: both V _m 8 V _{w2} > 180 ±35% or < 80 V max. Output obtage Input - 0.65 V Nominal current 40A Max. Output obtage Input - 0.65 V Vallage drop 0.65 V Efficience > 7.7 ms = 50°C. Vallage drop 0.65 V Efficience > 800.000 hrs. General Data So A No damage Type of housing Aluminum Signalis Green LED V _{a1} & V _{h2} Othersions (L x W x H) 0.27 mm 50 mm x 122 mm Vallage noreations 0.48 V L de 30 m/s² (G gaax); displacement of 0.35 mm; 60 min. per axis for 30 VDC / 1A Dimensions (L x W x H) 0.27 mm 50 mm x 122 mm Vallage interperature (Structure) -40°C to +80°C Humidity at +25°C, no condensation -40°C to +80°C		24 V/DC and 48 V/DC
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(Single use) = Nom. 1x40 Amps. See 5.2 (Single use) = Nom. 1x40 Amps. See 5.2 Output voltage alarm 24 V system: both V _{in} X v _{jr2} > 36V ±5% or < 60 V max.		
Input voltage alarm 24 V system: both V _{irt} & V _{irc} > 18V 45% or < 60 V max.		
48 V system: both V _{p1} & V _{p2} > 36V ±5% or < 60 V max.		
Output Voltage Input - 0.65 V Nominal ourrent 40A Max. Derating > 50°C (2.5% / °C) Component Derating ''	input voitage alarm	24 v System. both $V_{in1} \approx V_{in2} > 10 v \pm 5 70 v = 50 v max.$
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Componient Derating Valage drop Voltage drop Voltage		
- T. (answer) = 50°C Voltage drop 0.65 V Efficiency > 27.0% bp. Shot circuit < 50 A, No damage		
- T ₁ < 85% of T _{max} Voltage drop 0.65 V Efficiency > 97.0% typ. Short circuit < 50 A, No damage	Component Derating	
Voltage drop 0.65 V Efficiency > 97.0% bp. Shot circuit < 50 A, No damage		
Efficiency > 97.0% typ. Short circuit < 50 A, No damage		
Short circuit < 50 A, No damage General Data Type of housing Aluminum Signals Green LED V _{n1} & V _{h2} MTBF - \$600,000 hrs. Relay contact (max.) 30 VDC /1 A Dimensions (L x W x H) 121 mm x 50 mm x 122 mm Weight 0.52 kg Connection method Screw connection 7 mm Operating temperature (surrounding air temperature) -40°C to +80°C (Refer to Fig. 6) Storage temperature (surrounding air temperature) -40°C to +88°C Humidity at -25°C, no codensation - 85% RH Vibration (non-operating) 10 to 500 Hz @ 30 m/s² (3 G peak); displacement of 0.35 mm; 60 min. per axis fo all X, Y, Z directions in acc. with IEC 60068-26 Shock (in all directions) 30 G (300 m/s²) in all directions in acc. with IEC 60068-26 Selectrical equipments of machines IEC 60204-1 Electronic equipment for use in electrical power installations Electronic equipment for use in electrical power installations EN 50178 / IEC 62103 Safety entry tow voltage PEULV (EN 60204.) SELV (EN 60950) Cultus recognized to UL 508 and CSA C222 No.107.1-01 CLus recognized to UL 508 and CSA C222 No.107.1-01 CE Division 2, Group A,B,C,D T4, T ₄ = -40°C to +80°C (> +50°C derating)] Protection against electric shock DIN 57100-410 THE EN 55021, EN 61000-3-2, EN 61000-3-3, EN 55024 ETTE EN 55021 ETTE EN 55021 EN 61000-3-2, EN 61000-3-3, EN 55024 ETTE EN 55021 EN 61000-3-2, EN 61000-3-3, EN 55024 ETTE EN 55021 EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN 55024 EN 61000-3-2, EN 61000-3-2, EN 61000-3-2, EN 61000-3-3, EN		
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Protection degree IP20	Input & Output / PE	1.5 kVAC
	Protection degree	
		Class III with PE connection