

POWER SUPPLY REDUNDANCY BUFFER MODULE

PS-RDN20



- Suitable for Redundant Operation of 24 Vdc System
- Alarm Output Relays
- LED Indicator for Input Failure Alarm

The PS-RDN20 is a 20A redundancy (buffering) module for a 24 Vdc power system. Containing 2 sets of 20A OR-ing diodes, the PS-RDN20 gives you a new option for safe connection of 1+1 redundant power supplies. Not only does it provide the buffering and decoupling for redundant power supplies, the PS-RDN20 also provides alarm signals for both input channels through the built-in alarm relays. Now you can replace a failed power supply without interruption to your control system.



DRTB-RAIL-3575,
DIN rail, sold
separately. Visit
omega.com/drtb-rail

PS-RDN20
shown actual size.

SPECIFICATIONS

OUTPUT

Reverse Voltage (Maximum): 30V

Output Current (Maximum): 20A

Voltage Drop: 0.5V

INPUT

Input Voltage Range: 21 to 28 Vdc

Number of Inputs: Two

Input Current (Maximum): 20A per input

FUNCTION

Input Voltage Alarm: When input is <20V ($\pm 5\%$) or >30V ($\pm 5\%$), relay contacts close

Relay Contact Rating (Maximum): 30 Vdc, 1A

ENVIRONMENT

Working Temperature: -20 to 70°C (-4 to 158°F)

Working Humidity: 20 to 90% RH non-condensing

Storage Temperature, Humidity: -40 to 85°C (-40 to 185°F), 10 to 95% RH

Vibration: 10 to 500 Hz, 2G 10 min/1 cycle, period for 60 min each along X, Y, Z axes

Mounting: Compliance to IEC60068-2-6

SAFETY and EMC

Withstand Voltage:

Terminal-Chassis: 0.5 K Vac,
Relay Contacts-Terminal: 0.5 K Vac

Isolation Resistance:

Terminal-Chassis: >100M Ω /500 Vdc
25°C (77°F) 70% RH

EMI Conduction and Radiation:

Compliance to EN55022 (CISPR22)
Class B

EMS Immunity: Compliance to EN61000-4-2, 3, 4, 5, 6, 8, ENV50204, heavy industry level, Criteria A

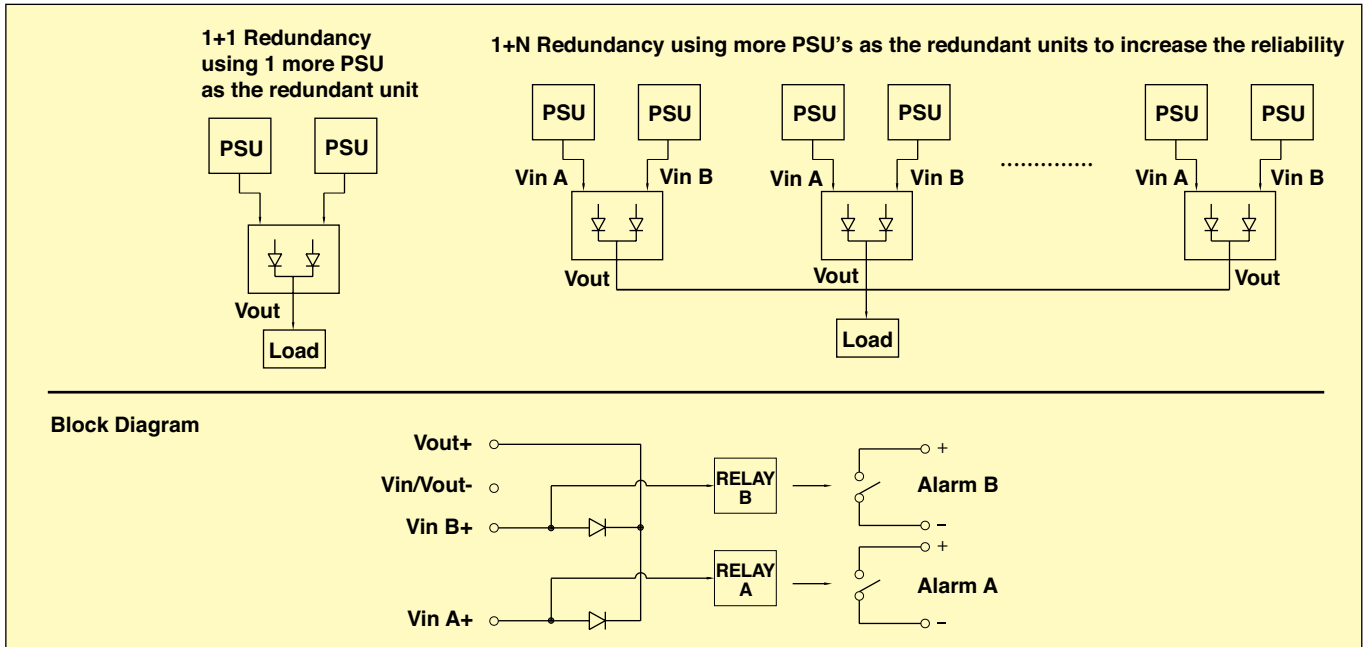
MTBF: 996.8 Khrs min MIL-HDBK-217F [25°C (77°F)]

Dimensions:

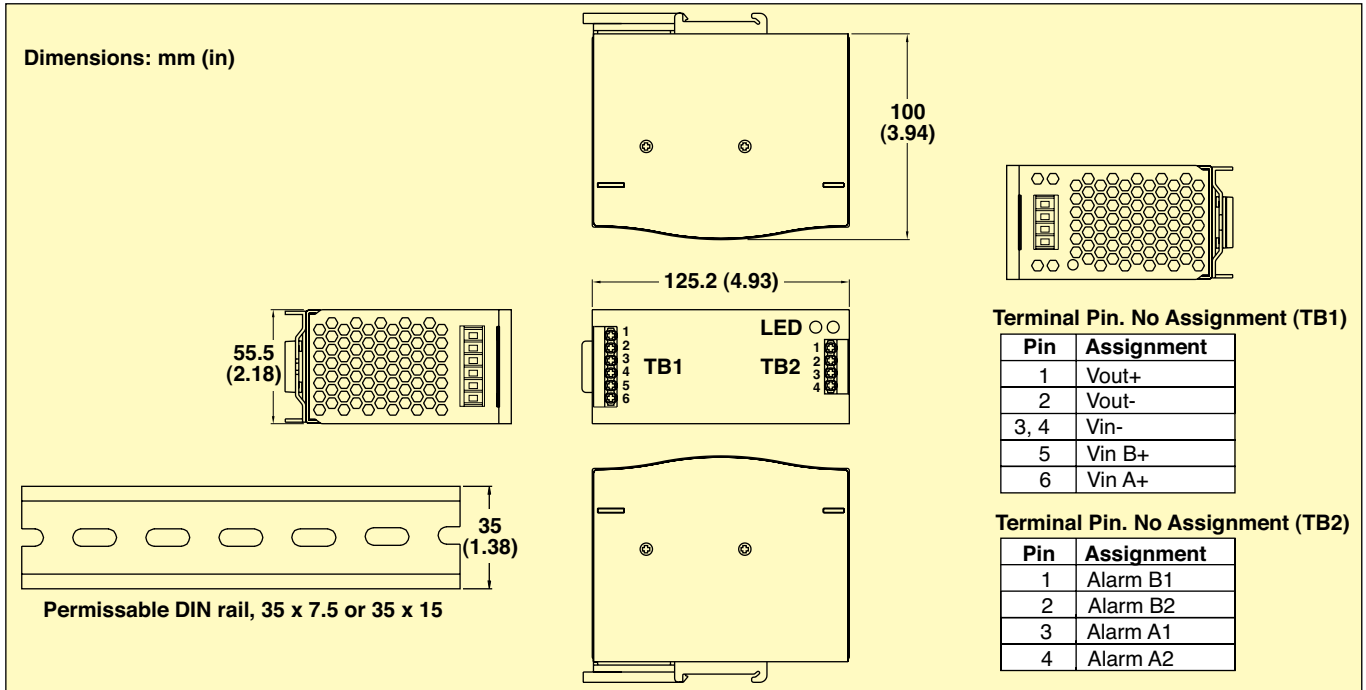
55.5 W x 125.2 H x 100 mm D
(2.18 x 4.93 x 3.94")

Weight: 0.5 kg (1.1 lb)

APPLICATIONS



DIMENSIONS



To Order

MODEL NO.	DESCRIPTION
PS-RDN20	Power supply redundancy module

Ordering Example: PS-RDN20, power supply redundancy module.

POWER SUPPLIES

MODEL NO.	DESCRIPTION
DR-75-24	DIN rail power supply, 24 Vdc, 3.125A
DR-120-24	DIN rail power supply, 24 Vdc, 5A
DR-240-24	DIN rail power supply, 24 Vdc, 10A

Note: Power supplies sold separately.

Ordering Example: PS-RDN20, power supply module and DR-75-24, 2 DIN rail power supplies.