

RED00213

19" 3U 8TE

Made in Germany

Active 3 way N+1 Redundant Power Supply Management Module for Front End / 19" Subracks

Short Specification:

- -20°C...+70°C ambient temperature
- Design for 3 DC-Outputs 5-35Vdc
- H15M power connector
- IP20 metal housing
- DC-Input = DC-Output-Voltages
- Connection mix up protected
- Potential free control relay integrated
- Schottky Barrier Diodes decoupling
- Efficiency $\geq 97\%$ (24Vdc)
- Power LED
- Electrical parts with highest reliability used
- 24h Burn-In tested

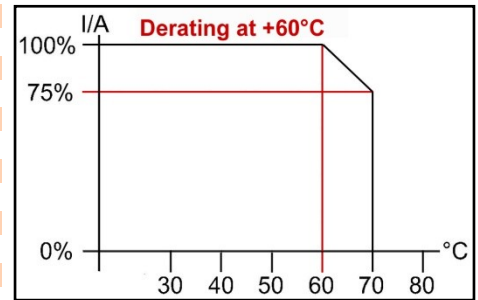


In accordance with IEC60950-1

Channel-Inputs	V1 in 1 / V1 in 2	V2 in 1 / V2 in 2	V3 in 1 / V3 in 2
Input-/output voltage	+4,5...+7.5V	+4,5...+7.5V	-4,5...-7.5V
Input-/output voltage	+4,5...+7.5V	+7,5...+13V	-7,5...-13V
Input-/output voltage	+4,5...+7.5V	+13...+22V	-13...-22V
Input-/output voltage	+4,5...+7.5V	+22...+36V	-22...-36V
DC-Output Current Maximum	10A	10A	10A
Rated Power Load	150W over all		

Order codes: RED00213.+Channle-Inputs: example RED00213.V1 (Standard: neutral 19" front panel included)

DC Control Relay	Change over contact
Relay load	48Vdc 500mA maximum
Cooling	Free air convection
Ambient Temperature	-20°C...+70°C
Storage Temperature	-40°C...+85°C
EMI	EN55022 class B / EN61000-3-2
EMS	EN61000-6-2,3
Safety	cUL60950/1950 (IEC)EN60950-1
Safety class 1(A)	VDE0805, VDE0100
Air & Surface Leakage Paths	> 2mm
MTBF at full load	250000h at 45°C
Dimensions (HxWxD)	3U 8FS (frame steps) D=160mm
Weight	400g
Connector	H15M DIN61612



Specifications:

When breakdowns cost a lot of money and service is hindered it is advisable to rate the power supply management application redundant, quasi breakdown played safe.

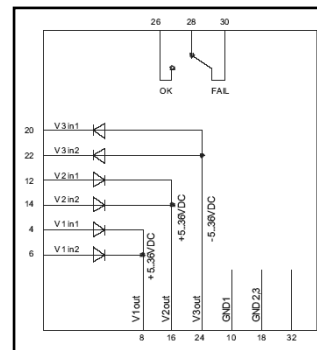
The redundant module RED00213 is designed for applications from 5Vdc to 35Vdc with 1 to 3 DC-output voltages. For example, if you use the Camtec PSM-Series or other high class power supplies the DC-outputs (equal power supplies and output voltages are recommended) will be decoupled from each other so that in case of a breakdown to one of these modules, the other one will take over the load with any voltage breakdown to the system. It is recommended that in non-fault operation mode the load will be partitioned absolute equal to each power supply. This increases lifetime and availability dramatically in comparison with standard parallel operation modes. From the RED00213 a relay message contact (change over contact) features continuous control over the operating condition of the redundant system. If one power supply faults the relay drops out messages the remaining power supply has taken over.

The DC-Inputs of the RED00213 correspond to the output voltage of the power supplies installed. The GND-Input of the RED00213 is evident for the own supply only. The voltage drop down between DC-input and DC-output is as low as 500mV what is in accordance to the drop down voltage of the Schottky barrier diodes.

Mechanics, Safety & Service Specifications:

For service or install conditions the system has be circuit switched to voltage free. The housing screws are recommended for the GND-connect – never ever remove one of it. For operation it is necessary to connect the GND-connect to the system ground to prevent any kind of interferences to the system.

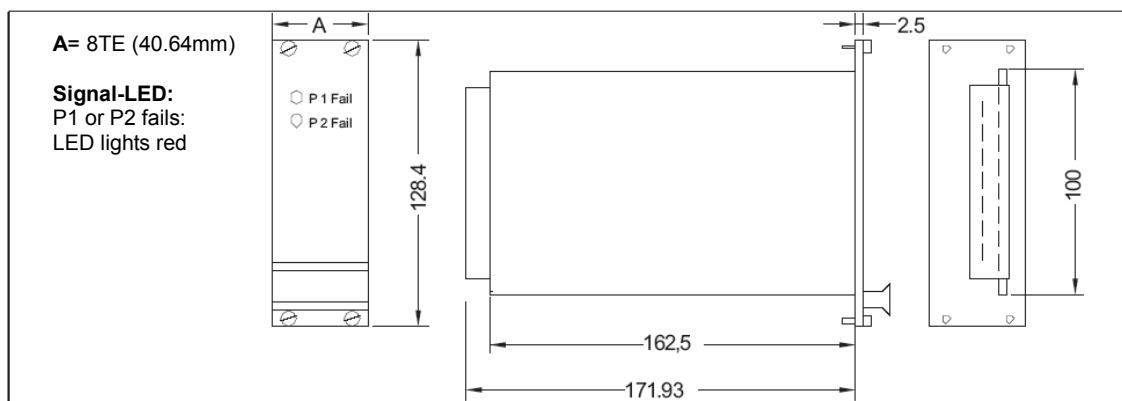
We use a stable IP20 aluminium metal housing with VDE approved ventilation slots.

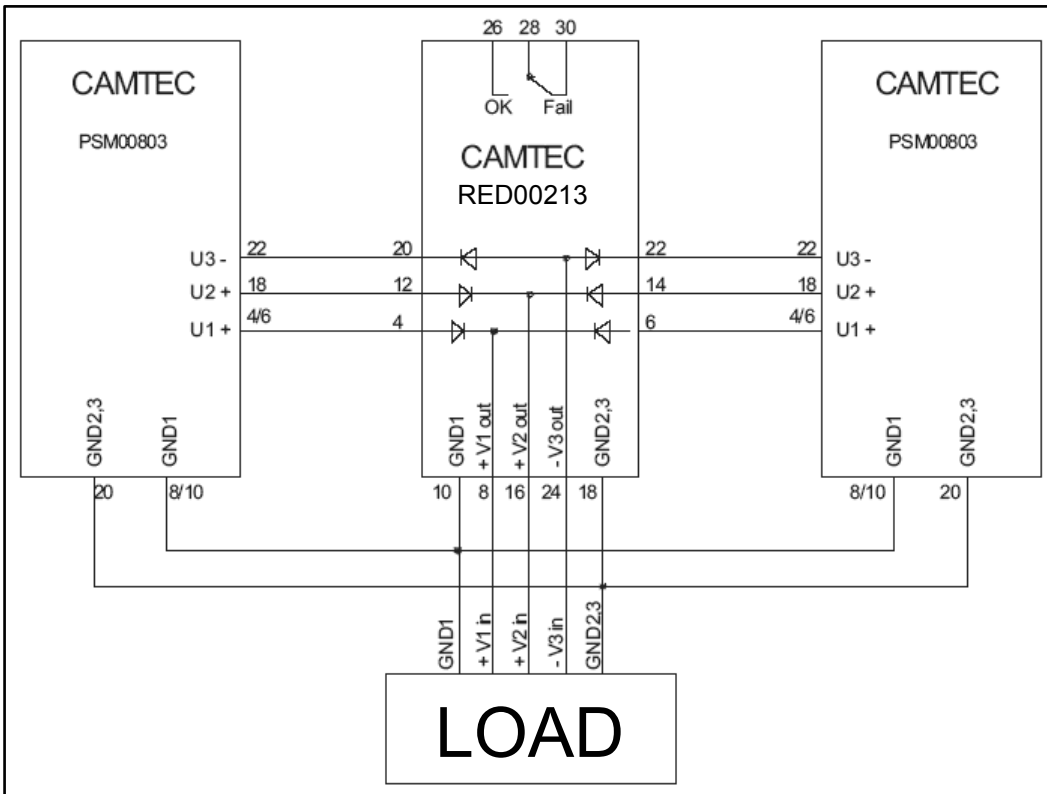


Block diagram

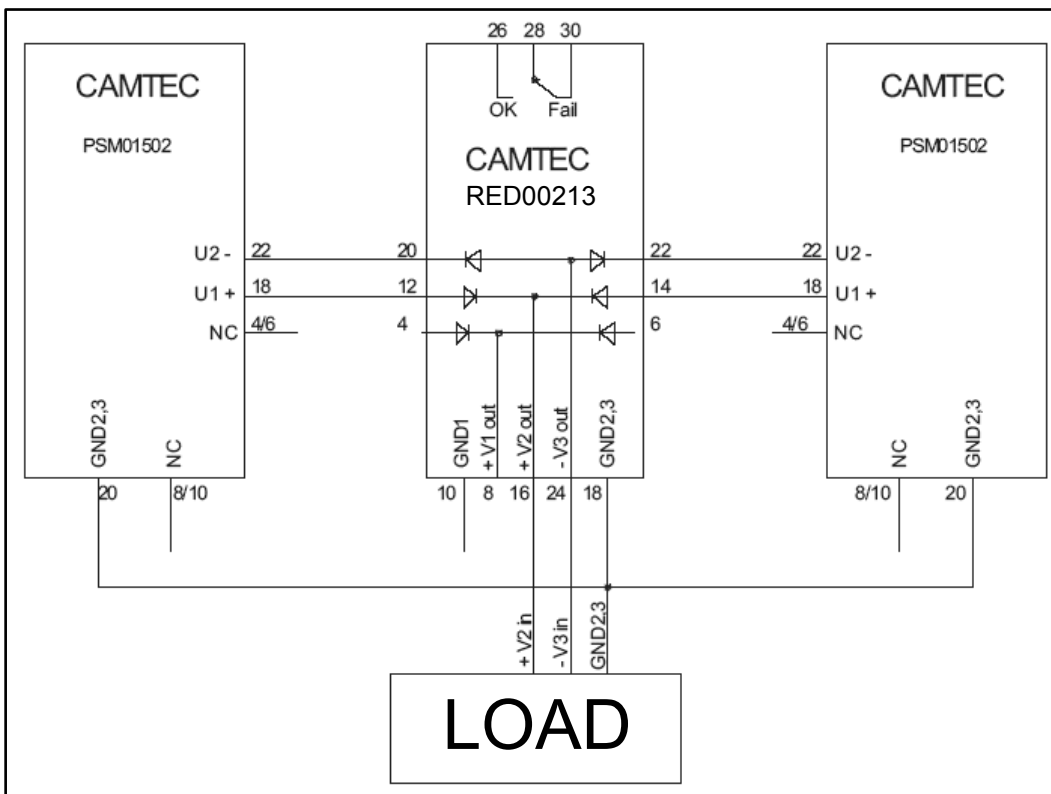
H15M connector assembly

4	V1 in 1
6	V1 in 2
8	V1 out
10	GND1
12	V2 in 1
14	V2 in 2
16	V2 out
18	GND2,3
20	V3 in 1
22	V3 in 2
24	V3 out
26	Relay
28	Relay
30	Relay
32	PE





Sample application with a Camtec PSM00803. Note: the digital GND1 and the analog GND2,3 of the PSM00803 are separately connected, but it is possible to connect both together



Sample application with a Camtec PSM01502