

# Switching Power Supply Redundant Module Type SPD24RM20 DIN rail mounting



- Installation on DIN Rail 7.5 or 15mm
- 2 “Power Rdy” relay outputs
- Up to 480W output
- Unlimited number of connectable redundant power supplies\*
- Very compact dimensions
- UL, cUL listed
- TUV approved
- Ce and RoHS compliant

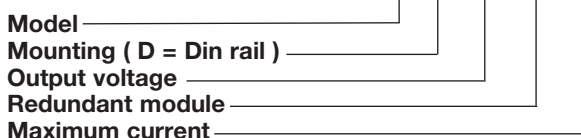
\*The power supplies can be externally connected with SPD24RM20 to increase the output power. However it is suggested to use 90% load only, for example 10A\*2\*0.9= 18A. The power supplies of different models or spec. can not be connected for parallel operation.

## Product Description

This SPD additional module is always guaranteed, even in case of failure of one power supply. 2 relay outputs provide voltage free outputs in order to send the alarm to a control unit when a failure occurs.

## Ordering Key

**SP D 24 RM 20**



## Approvals



## Output Data

Output voltage drop	0.5V
Output maximum Current	20A
Output Peak Current >5ms	30A
Max Reverse Voltage	30V

## Input Data

Rated input Voltage	21...28VDC
Number of inputs	2
Maximum input current	20A

## Controls and Protections

Power RDY relay Output	
OK	input 20...30V ±5%
Fail	input 20...30V ±5%
Contact rating	1.0A

## Approvals and EMC

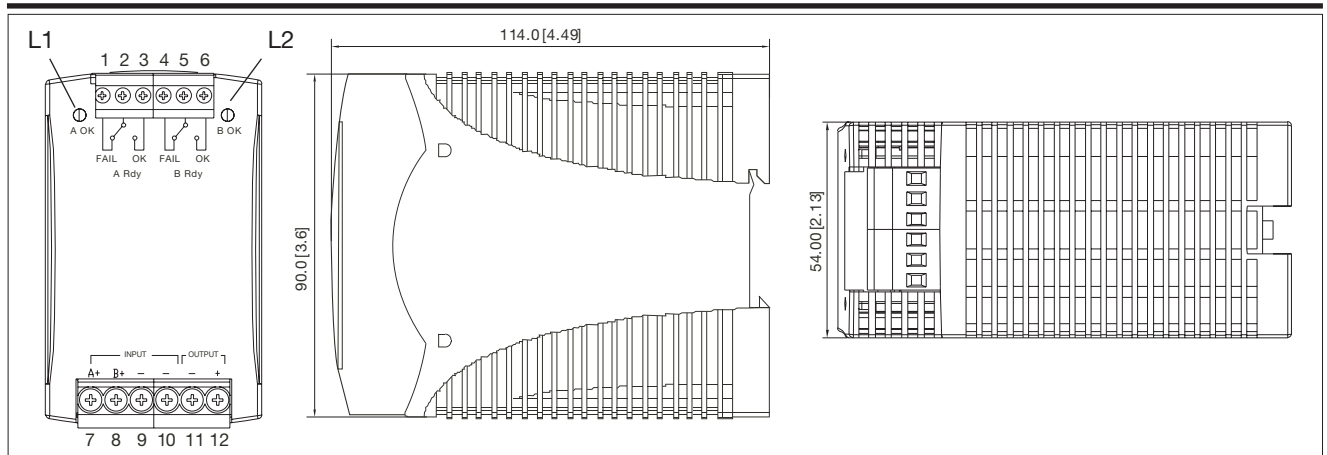
Shock resistance	acc. to IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)
Vibration resistance	acc. to IEC 60068-2-6 (Mounting by rail: 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
UL / cUL	UL 508 Listed UL 60950-1 Recognized
TUV	EN 60950-1, CB scheme
CE	EN 55022 Class B, EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-6, EN 61000-4-8, EN 61204-3

## General Data

Insulation Voltage	
Input / Relay contact	100VDC
Insulation Resistance	
Input / Relay contact @100VDC	100MΩ
Operating temperature	-25°C...+71°C
Storage temperature	-25°C...+85°C
Relative Humidity	20...95%RH
MTBF (Bellcore issue 6 @ 40°C, GB)	659,000h
Cooling	Free air convection
Case material	Plastic
Dimensions L x W x D	90 x 54 x 114mm
Weight	210g



## Mechanical Drawings mm (inches)

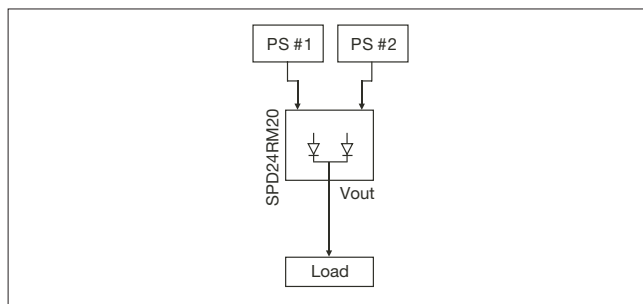


## Pin Assignment and Front Controls

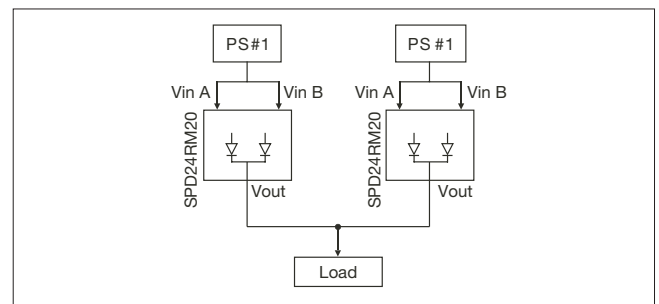
Pin No.	Designation	Description
1	A Rdy Fail	Relay normally closed contact (power supply A Fail)
2	A Rdy COM	Relay common contact
3	A Rdy OK	Relay normally open contact (power supply A OK)
4	B Rdy Fail	Relay normally closed contact (power supply B Fail)
5	B Rdy COM	Relay common contact
6	B Rdy OK	Relay normally open contact (power supply B OK)
7	Input A+	Positive Input power supply A
8	Input B+	Positive Input power supply B
9	Input -	Negative Input power supply A
10	Input -	Negative Input power supply B
11	Output -	Positive Output terminal
12	Output +	Negative Output terminal
L1	A OK	"A" power supply operation OK LED
L2	B OK	"B" power supply operation OK LED

## Typical Application Notes

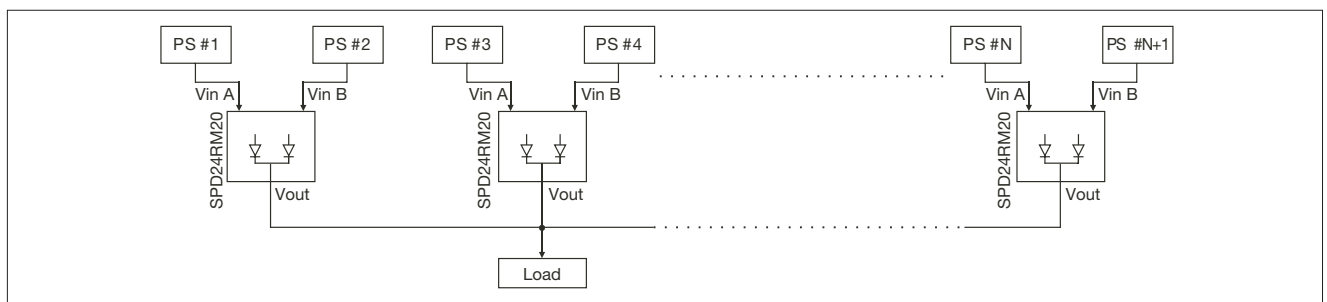
1.) 1+1 Redundancy: Using 1 more PS as the redundant unit.



2.) Single Use: Connecting only one PS to one SPD24RM20 to reduce the stress of the diodes and hence increase the reliability.

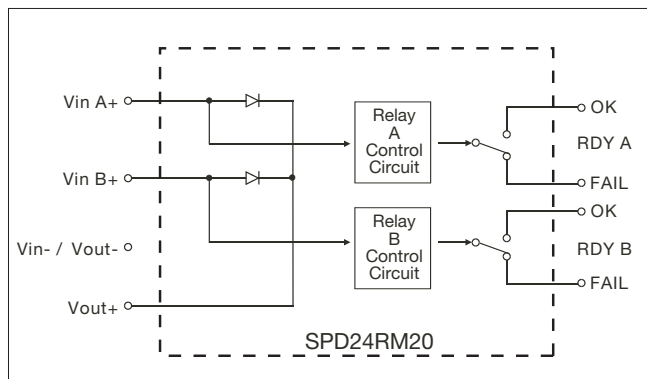


3.) 1+N Redundancy: Using more than one PS as redundant units to increase the reliability.





## Circuit Diagram



## Installation

<b>Ventilation and cooling</b>	Normal convection All sides 25mm free space for cooling is recommended
<b>Screw terminals</b> cable 8mm stripping recommend	10-24AWG flexible or solid
<b>Max. torque for screws terminals</b> Input terminals Output terminals	1.008Nm (9.0lb-in) 0.616Nm (5.5lb-in)
<b>Plug-in connectors</b> cable 7mm stripping recommend	10-24AWG flexible or solid
<b>Max. torque for plug-in terminals</b> Input terminals Output terminals	0.784Nm (7.0lb-in) 0.784Nm (7.0lb-in)

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