

PSR10

10 A Redundant Module

Din Rail Mountable

FEATURES

- Suitable for Redundant operation of 24V system
Max. current capacity 10A
- Compact design with a width of only 35 mm



SPECIFICATIONS

GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Ambient temperature	Operating at Vi nom	-25		+ 71	°C
Storage temperature	Non operational	-25		+ 85	°C
Relative humidity	Vi nom, Io nom	20		95	% RH
MTBF	Bellcore Issue 6 @40°C, GB		9697000		Hours
Dimension		L91 x W35 x D56.5			mm
Cooling	Free air convection				

INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	Io nom	21		28	VDC
Number of inputs			2		
Input current (max)				10	A

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage drop	Vi n - Vout		0.5		V
Output current	Vi nom			10	A
Reverse voltage (max)				30	V

APPROVALS AND STANDARDS

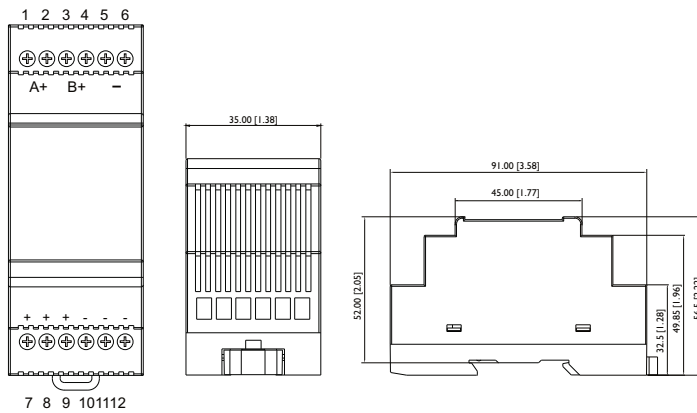
CE	EN 55022 Class B, EN 55024 EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-6, EN 61000-4-8 EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (Mounting by rail : 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
Shock resistance	meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)

PHYSICAL CHARACTERISTICS

Case size	91 x 35 x 56.5 mm (3.58 x 1.38 x 2.22 inches)
Case material	Plastic
Weight	75 g
Packing	0.13 kg ; 80 pcs / 12kg / 1.82 CUFT

DIMENSIONAL DIAGRAM

mm [inch]



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

INSTALLATION

Ventilation / Cooling

Normal convection

All sides 25mm free space

For cooling recommended

Connector size range

Spring terminal:

AWG24-12 (0.2~2.5 mm²) flexible / solid cable,

- Connector can withstand torque at maximum 6 pound-inches.

7 m/m stripping at cable end recommends

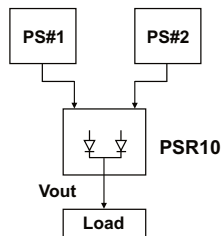
Use copper conductors only, 60 / 75°C

PIN CONFIGURATION

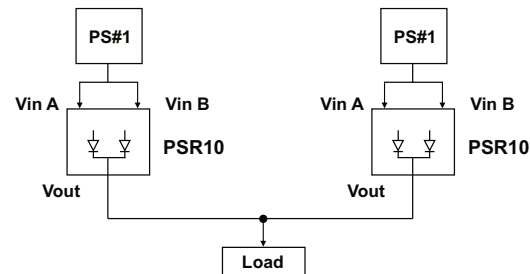
PIN NO.	Designation	Description
1	A+	Input terminal
2	A+	
3	B+	
4	B+	
5	-	
6	-	
7	+	Positive output terminal
8	+	
9	+	
10	-	Negative output terminal / input terminal
11	-	
12	-	

TYPICAL APPLICATION NOTES

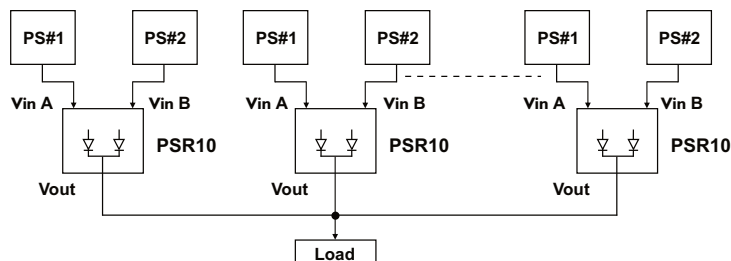
1.) 1+1 Redundancy : Using 1 more PS as the redundant unit.



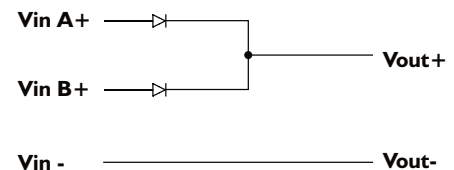
2.) Single Use : Connecting only one PS to one PSR10 to reduce the stress of the diodes and hence increase the reliability.



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



CIRCUIT SCHEMATIC



PSR20

20 A Redundant Module
Din Rail Mountable

FEATURES

- Suitable for Redundant operation of 24V system Max. Current capacity 20A
- Compact Design with a width of only 54 mm.
- Ready relay contacts
- Decoupling diodes
- LED indicator for input failure alarm



GENERAL SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Isolation voltage	Input / Relay contact	100			VDC
Isolation resistance	Input / Relay contact, @ 100VDC	100			MΩ
Ambient temperature	Operating at Vi nom	-40		+ 71	°C
Storage temperature	Non operational	-40		+ 85	°C
Relative humidity	Vi nom, Io nom	20		95	% RH
MTBF	Bellcore Issue 6 @40°C, GB		659000		Hours
Dimension		L90 x W54 x D114			mm
Cooling	Free air convection				

INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	Io nom	21		28	VDC
Number of inputs			2		
Input current (max)				20	A

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage drop	Vin - Vout		0.5		V
Output current	Vi nom			20	A
Output peak current	Vi nom for 5ms			30	A
Reverse voltage (max)				30	V
DC ON indicator	Two LEDs indicating each input is ok		Green LED		

CONTROL FUNCTION

Characteristics	Conditions	min.	typ.	max.	unit
Power Rdy	OK	When input is >20V(±5%) or <30V(±5%)			
	Fail	When input is <20V(±5%) or >30V(±5%)			
	Contact rating at 30VDC			1.0	A

APPROVALS AND STANDARDS

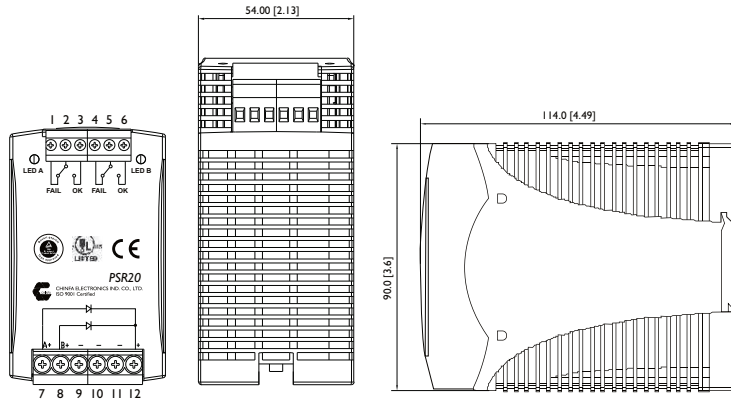
UL / cUL	UL 508 Listed UL 60950-1 Recognized
TUV	EN 60950-1, CB scheme
CE	EN 55022 Class B, EN 55024 EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-6, EN 61000-4-8 EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (Mounting by rail : 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)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

PHYSICAL CHARACTERISTICS

Case size	90 x 54 x 114 mm (3.6 x 2.13 x 4.49 inches)
Case material	Plastic
Weight	210 g
Packing	0.28 kg ; 32 pcs / 10kg / 1.85 CUFT

DIMENSIONAL DIAGRAM

mm [inch]



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

INSTALLATION

Ventilation / Cooling

Normal convection

All sides 25mm free space

For cooling recommended

Connector size range

Spring terminal:

IN / OUT: AWG24-10 (0.2~4mm²) flexible / solid cable,

- Connector can withstand torque at maximum 5.5 pound-inches.

Relay: AWG24-12 (0.2~2.5mm²) flexible / solid cable,

- Connector can withstand torque at maximum 6 pound-inches.

7~8 m/m stripping at cable end recommends

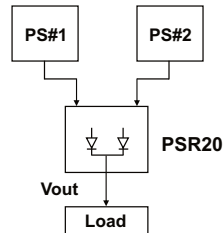
Use copper conductors only, 60 / 75°C

PIN CONFIGURATION

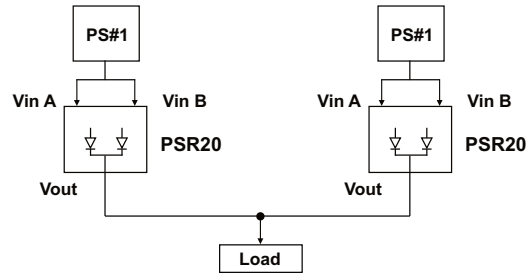
PIN NO.	Designation			Description
1	OUT	RDY A	FAIL	A normal open relay contact for DC ON level control
2			COM A	
3			O.K	
4		RDY B	FAIL	
5			COM B	
6			O.K	
7	IN	+	A+	Input terminal
8		+	B+	
9	OUT	-		Negative output terminal / input terminal
10		-		
11		-		
12	OUT	+		Positive output terminal

TYPICAL APPLICATION NOTES

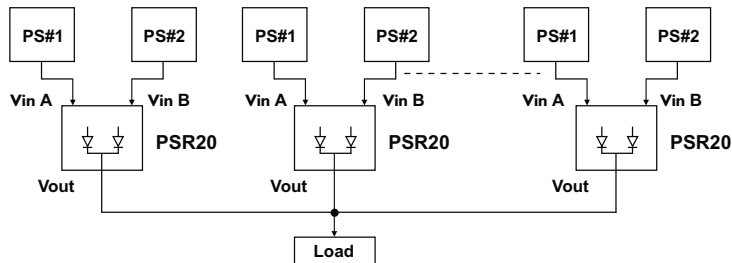
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- 2.) Single Use : Connecting only one PS to one PSR20 to reduce the stress of the diodes and hence increase the reliability.



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



CIRCUIT SCHEMATIC

