

DRP20 SERIES

20A REDUNDANT MODULE



FEATURES

- SUITABLE FOR REDUNDANT OPERATION OF 24V SYSTEM MAX 20A
- READY RELAY CONTACTS
- DECOUPLING DIODES
- LED INDICATOR FOR INPUT FAILURE ALARM
- 3 YEARS WARRANTY



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL

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		792,000		Hours
Altitude during operation	EN 62368-1			5,000	m
Dimension			L90 x W54 x D114		mm
Cooling	Free air convection				
Installation position	Vertical (other direction may derating using)				
Pollution degree			2		

INPUT SPECIFICATIONS

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

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage drop	Vin - Vout		0.5		V
Output current	Vi nom			20	A
Maximum output current	Vi nom		30A for 300 sec.		
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

SPECIFICATION

APPROVALS AND STANDARDS

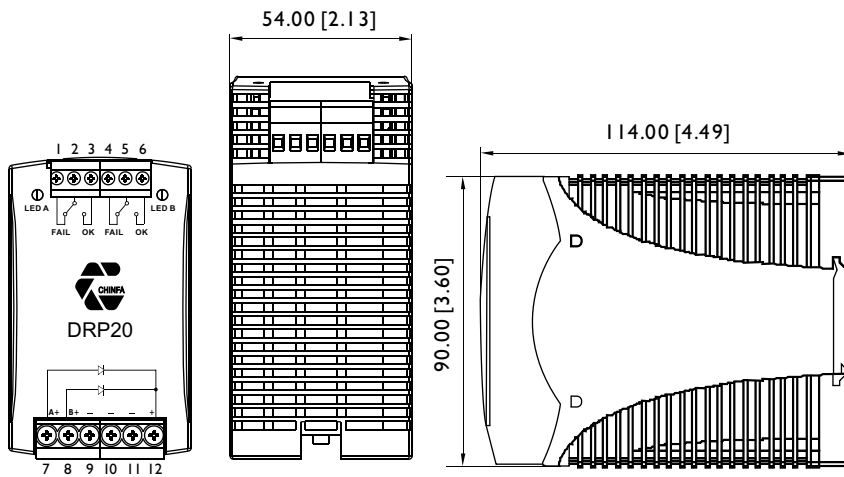
UL / cUL	UL 508 Listed, UL 60950-1
TUV	BS EN / EN 62368-1
cTUVus	UL 62368-1
CE	BS EN / EN 55032 Class B, BS EN / EN 55035, BS EN / EN 61000-4-2, BS EN / EN 61000-4-3, BS EN / EN 61000-4-4, BS EN / EN 61000-4-5, BS EN / EN 61000-4-6, BS EN / EN 61000-4-8 DD ENV / ENV 50204, BS EN / EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (Mounting on 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

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

MECHANISM & PIN CONFIGURATION

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
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

GENERAL TOLERANCE

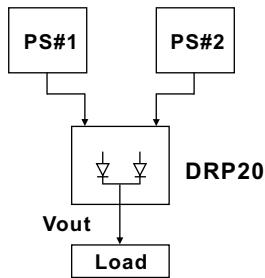
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]

PIN ASSIGNMENT

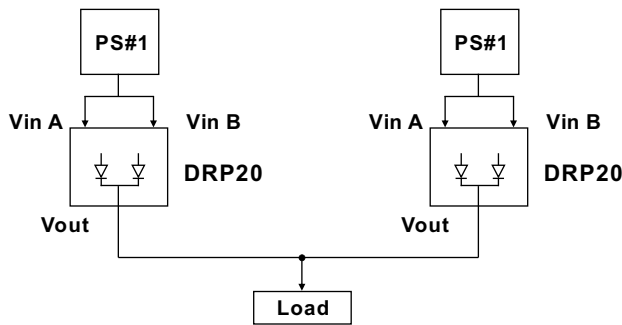
PIN NO.		Designation		Description
1	OUT	RDY A	FAIL	A normal open relay contact for DC ON level control
2			COM A	
3			O.K	
4		RDY B	FAIL	
5			COM B	
6			O.K	
7	IN	+	A+	Input terminal
8		+	B+	
9	OUT	-		Negative output terminal / input terminal
10		-		
11		-		
12	OUT	+		Positive output terminal

TYPICAL APPLICATION NOTES

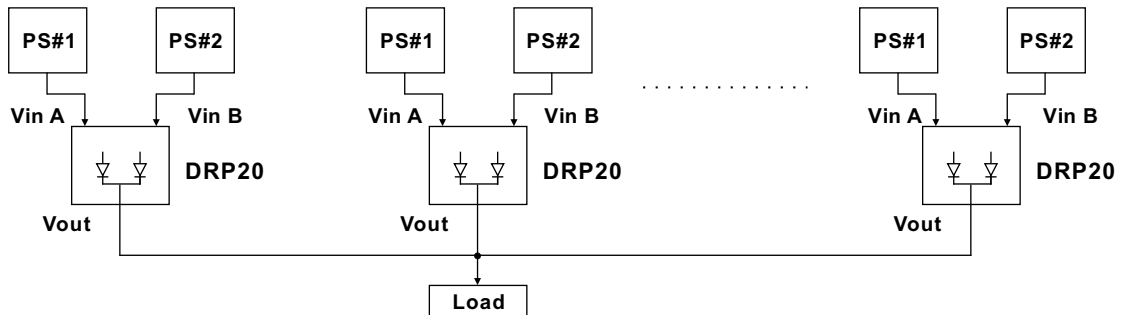
1.) I + I Redundancy : Using I more PS as the redundant unit.



2.) Single Use : Connecting only one PS to one DRP20 to reduce the stress of the diodes and hence increase the reliability.



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



CIRCUIT SCHEMATIC

