

# 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	IEC 60068-2-13			4,850	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

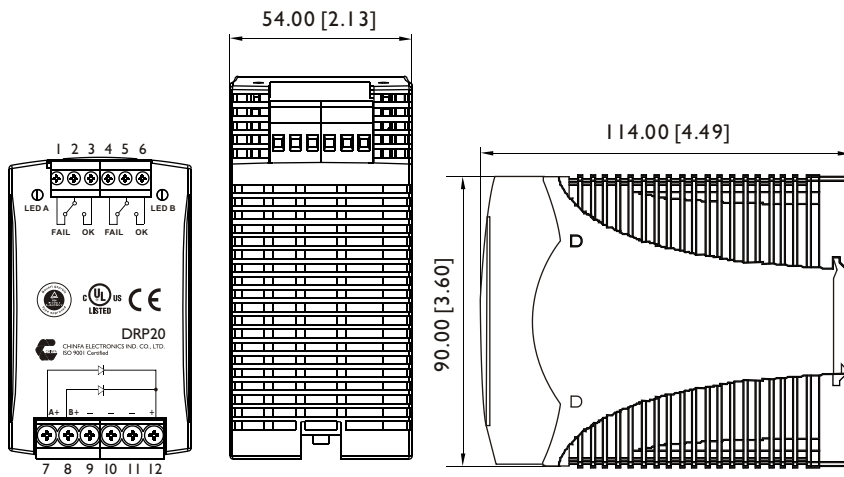
UL / cUL	UL 508 Listed UL 60950-1 Recognized
TUV	EN 60950-1
CE	EN 55022 Class B, EN 55024 EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8 ENV 50204, EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (Mounting on rail : 10-500 Hz, 2G, along X, Y, Z each Axis, 60 min 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 (0.2~4mm<sup>2</sup>) flexible / solid cable, connector can withstand torque at maximum 5.5 pound-inches.  
Relay : AWG24-12 (0.2~2.5mm<sup>2</sup>) 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

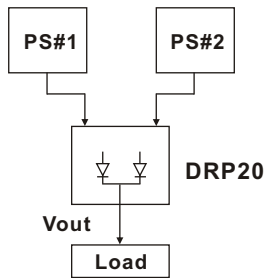
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]

### PIN ASSIGNMENT

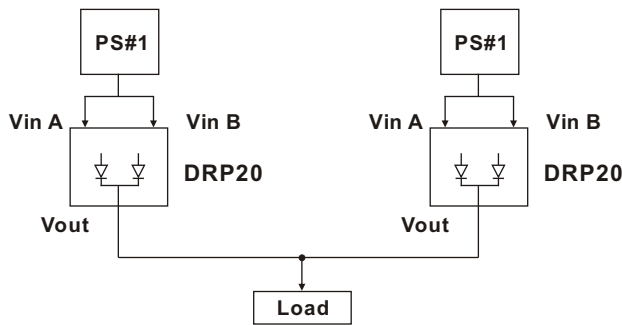
PIN NO.		Designation	Description
1	OUT	RDY A	FAIL
2			COM A
3			O.K
4		RDY B	FAIL
5			COM B
6			O.K
7	IN	+	A+
8		+	B+
9	OUT	-	Input terminal
10		-	
11		-	Negative output terminal / input terminal
12	OUT	+	Positive output terminal

## TYPICAL APPLICATION NOTES

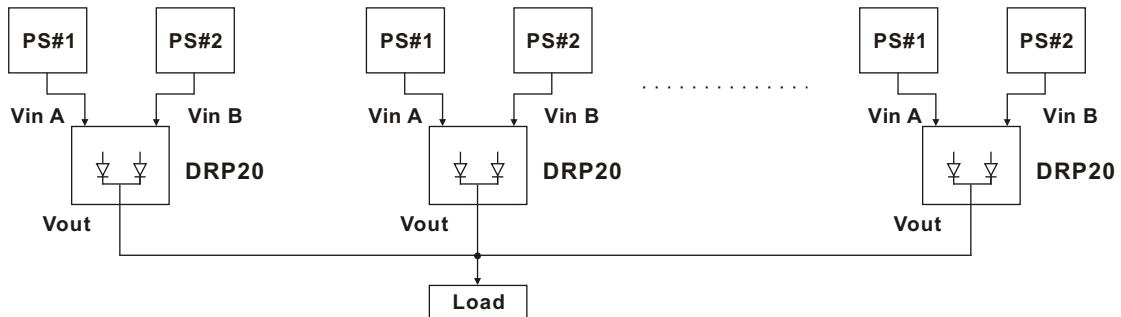
1.) I + I Redundancy : Using I more PS as the redundant unit.



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

