

YSDR40 Redundancy Module 40A



The redundancy module YSDR40 is suitable for redundancy operation of 12V/24V/48V systems.

With higher peak current, the entire series have built-in 2 channels, DC Ok signal and alarm relay contact. It can be used with a power supply to improve overall system operation reliability.



Features

CY support 1+1 and N+1 redundancy system

DC suitable for redundancy operation of 12v/24v/48v systems

Y 2 channels input and 1 output

🔔 Built-in 2 channels DC OK signal and alarm relay contact

DIN Installation: DIN Rail Ts-35/7.5 & 15

3 Three years warranty

Model Information

Part number	INPUT VOLTAGE	INPUT VOLTAGE RANGE	INPUT RATED CURRENT	OUTPUT RATED CURRENT
YSDR40-12	12vdc	9~14vdc	0~40A Per inPut continuous	0~40A, continuous
YSDR40-24	24vdc	19~29vdc	0~40A Per inPut continuous	0~40A, continuous
YSDR40-48	48vdc	36~60vdc	0~40A Per inPut continuous	0~40A, continuous

Input

NUMBER OF INPUT	2 channels		
VOLTAGE DROP (Vin-Vout) (max.)	0.5v		
PEAK CURRENT	0~60A Per inPUt, 5sec.		
EFFICIENCY (TYP.)	95%		
INPUT REVERSE CURRENT (max.)	1mA		
INPUT REVERSEVOLTAGE (max.)	40vdc	YSDR40-12	
	40vdc	YSDR40-24	
	65vdc	YSDR40-48	

Output

PEAK CURRENT (max.)	60A, 5sec.
CAPACITANCE(TYP.)	320UF
STANDBY POWER LOSSES(TYP.)	1.5W

Protection

OVER LOAD	<60A,5sec. No damage
SHORT CIRCUIT	<60A,5sec. No damage

Function

REDUNDANCY	For 1+1 redundancy, and support N+1 redundancy	
BOTH INPUTSVOLTAGE ALARM	<8.5v or >14.7v (±5%)	YSDR40-12
	<18v or >31v (±5%)	YSDR40-24
	<34.2v or >63v (±5%)	YSDR40-48
RELAY	30vdc/1A resistive load	
LED STATUS DISPLAY	Green LED Ok	

Environment

COOLING	Free air convection	
WORKING TEMP. Note.2	-40 ~ +80 °C (Refer to "Derating curve")	
WORKING HUMIDITY	5 ~ 95% RH non-condensing	
STORAGE TEMP.	-40 ~ +85 °C	
TEMP. COEFFICIENT	±0.03%/ °C (0 ~ 60 °C)	
VIBRATION	component:10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X,Y, Z axes; Mounting: compliance to IEC61373	
OPERATING ALTITUDE Note.3	5000 meters/Ovc II	

SAFETY & EMC (Note 4)

SAFETY STANDARDS	IEC62368-1	
WITHSTAND VOLTAGE	IP/OP - chassis : 0.5kvac; IP/OP- Relay : 0.5kvac ; Relay - chassis : 0.5kvac	
ISOLATION RESISTANCE	IP/OP - chassis, IP/OP- Relay, Relay - chassis:>100M Ohms / 500vdc / 25°C/ 70% RH	
EMC EMISSION	BS EN/EN55032 classB	
EMC IMMUNITY	EN61000-4, 2, 3, 4, 5, 6, 8	

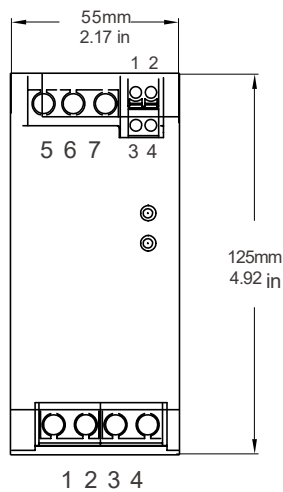
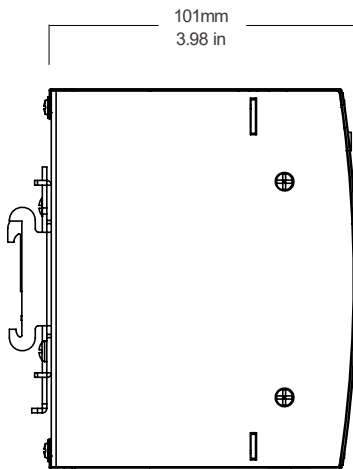
Dimensions & weight

Length:	55mm / 2.17in
Width:	101mm / 3.98in
Height:	125mm / 4.92in
Weight:	0.5kg

packing

Carton size:	39.5 X 32.5 X 27.5 CM 15.55 X 12.8 X 10.83 in
Master carton Quantities:	20pcs / Carton

Mechanical Specification



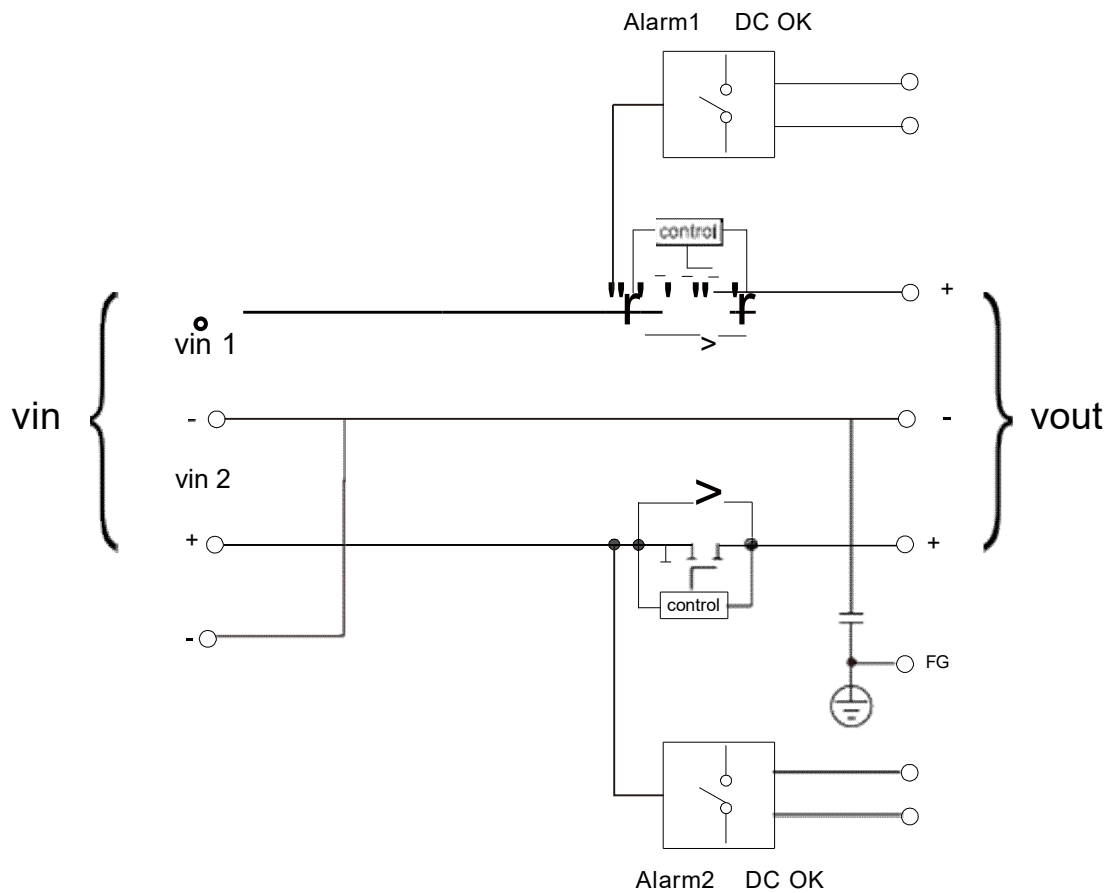
Input

No.	Description
1	Dc input +vin2
2	Dc input -vin2
3	Dc input +vin1
4	Dc input -vin1

output

No.	Description
1,2	Alarm1 DC OK
3,4	Alarm2 DCOK
5	FG
6	Dc output +vout
7	Dcoutput -vout

Block Diagram



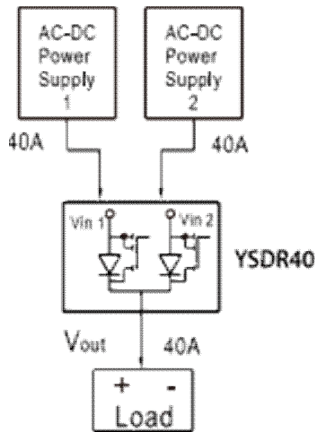
DC OK Relay cOntact

contact ratings max	30v/1A resistive load
contact close(DC OK)	psu turns on
contact open(DC Fail)	psu turns off over or under input voltage

Typical Application Notes

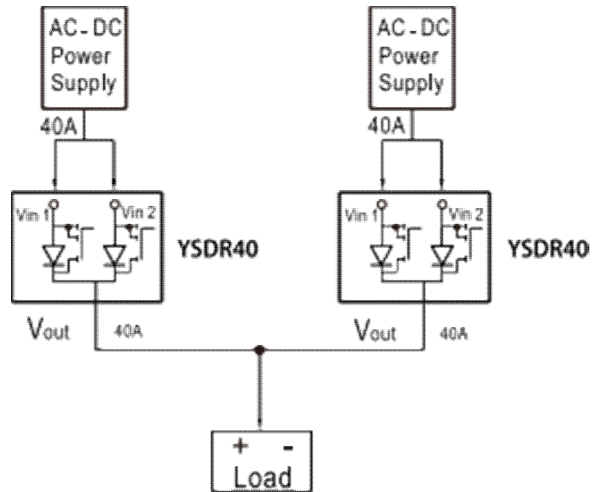
1. 1+1 Redundancy:

using 1 or more AC-DC Power supply as the redundant unit.



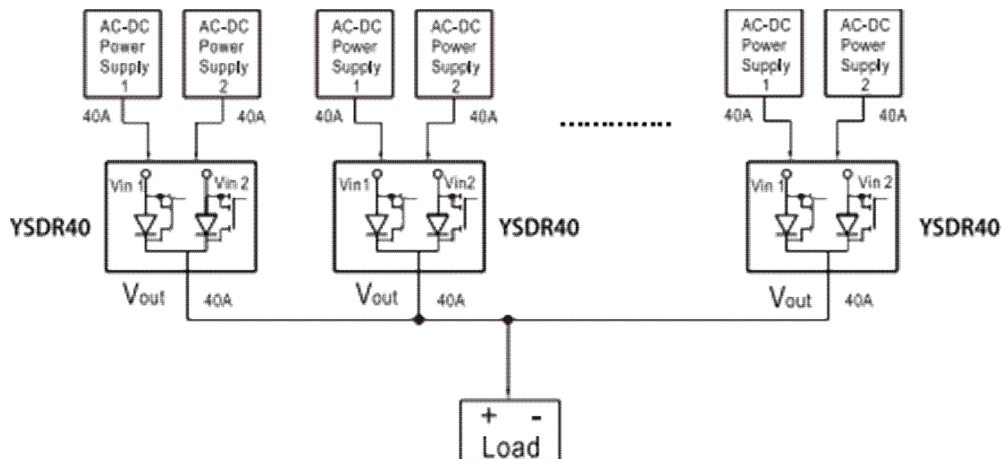
3. single use:

Only one AC-DC Power supply is connected to ONE YSDR40 to reduce stress on the MOSFET in order to improve system reliability

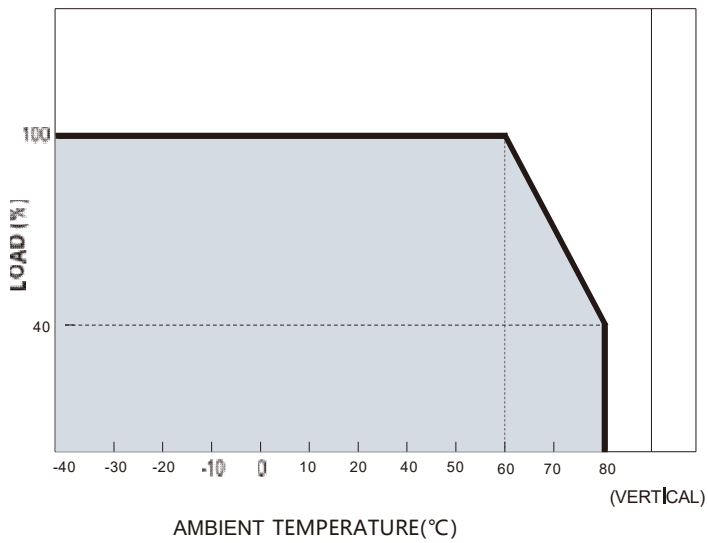


2. 1+N Redundancy:

The more AC-DC Power supplies are used as redundancy to improve system reliability



Deduction curve And Temperature



Minus output and input voltage curves

