

ISRM SERIES

Redundant module



Product Features

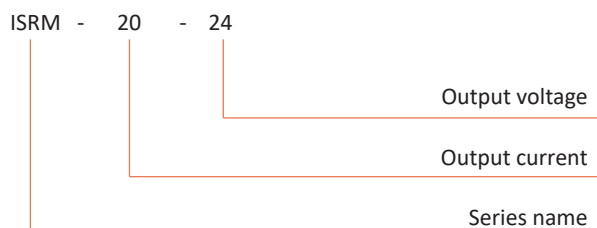
- Support 1+1 and N+1 system
- 3 Years Warranty
- Meet for 12V/24V/48V Input and Output Current up to 20A
- 100% Full Load Burn-in Test
- Cooling by Free Air Convection
- All Round Protections: SCP/OLP/OVP/OTP
- LED Indicator for DC Power On
- LED Indicator for DC Low
- BS EN/EN61000-6-2(BS EN/EN50082-2)
- Use TS35/7.5 or TS35/15 guide rails



Apply

Industrial control/Automation control/Transportation systems/Other industrial applications

NAMING RULES



MODEL LIST

Model number	Input voltage range	output current	output voltage	efficiency(Typ)	Ripple noise
ISRM20-12	9-14V	0-20A	12Vdc	98%	200mV
ISRM20-24	19-29V	0-20A	24Vdc	98%	200mV
ISRM20-48	36-60V	0-20A	48Vdc	98%	200mV

Electrical Specifications

Output/Inpu parameters	Output capacity(typical)			
	Peak current max			
	Input current	Total Input 0-20A continually or Each channel 0-10A		
	Voltage drop	0.25V(Vin-Vout)		
	Peak current	Each channel Input 0-30A 5seconds		
	Standby loss max	<1.5W		
	Inverse voltage max	ISRM20-12	ISRM20-24	ISRM20-48
		40Vdc	40Vdc	65Vdc
Inverse current max	Each channel Input 0-30A 5seconds			
Protection & Safety	Short protection	<30A,5Seconds,no damage		
	Over load protection	<30A,5Seconds,no damage		
	Input UVP alarm	<8.5V ±5%	<18V ±5%	<34.2V ±5%
	Input OVP alarm	>14.7V ±5%	>31V ±5%	>63V ±5%
	Hi-pot	I&O/P vs Case: 1.5kV & 5mA & 60S;		
	Isolation resistance	I&O/P vs Case:100MΩ/500Vdc/25 C /70% RH		
Environment	Operating Temperature	Ta= -40-80℃ Pls refer the derating curve		
	Operating Humidity	5-95% RH, non-condensing		
	Storage Temp./Humidity	-40-+85℃, 10-95% RH, non-condensing		
	Temp-coefficient	±0.03%/C (0~60C)		
	Vibration Resistant	10 ~ 500Hz, 2G 10minutes/cycle, X- Y- Z axis/60 minutes Installation: meet IEC60068-2-6		
	Operating attitude	5000m		
Certification & Standards	Certified	CE, EAC, UL508, UKCA, TUV, RCM+SAA,		
	Safety	EAC TP TC 004, BS EN/EN62368-1, UL62368-1		
	EMC-CON	CISPR32/EN55032 CLASS B		
	EMC-RA	CISPR32/EN55032 CLASS B		
	ESD	EN/IEC61000-4-2 Air 15KV,Contact 8KV criteria A		
	Radiated	EN/IEC61000-4-3 10V/m criteria A		
	EFT/Burst	EN/IEC61000-4-4 ±2KV criteria A		
	Surge	EN/IEC61000-4-5 Line to Line ±1KV criteria A		

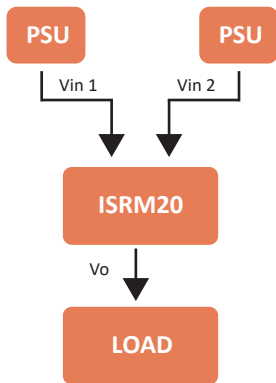
ELECTRICAL SPECIFICATIONS

	Conducted	EN/IEC61000-4-6 10Vr.m.s criteria A
	Magnetic Field	EN/IEC61000-4-8 30A/m criteria A
Miscellaneous	MTBF	50,000H,MIL-HDBK-217F(25°C)
	Dimension	36.0 x 95.3 x 108.0mm
	Packaging	250g 22pcs/7.5kg/0.7cuft/carton 620x260x175mm (L*W*H)
Note	<p>1. All specifications valid at nominal voltage, Rated full load and +25°C after warm-up time, unless otherwise stated.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Power supply that is as a part of system,must be test before install in the end of system.</p> <p>4. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source. 15mm clearance is recommended.</p> <p>5. Derating may be needed under low input voltage. Please check the derating curve for more details.</p>	

TYPICAL APPLICATION

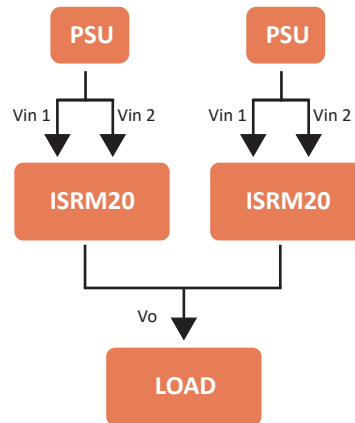
A.1+1 redundancy

One redundant, improved reliability



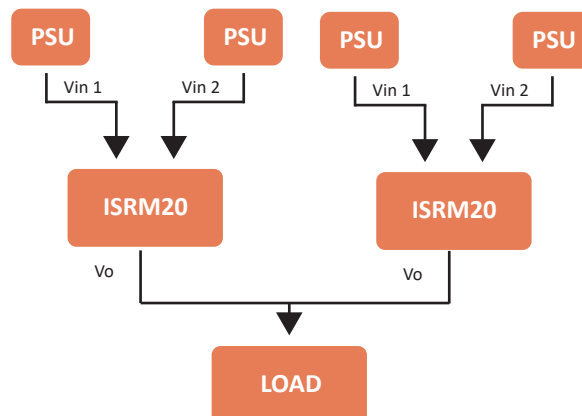
B. Use alone:

A switching power supply is connected to a ISRM20 to reduce the stress of the MOS tube and improve the reliability



C.2+2 redundancy

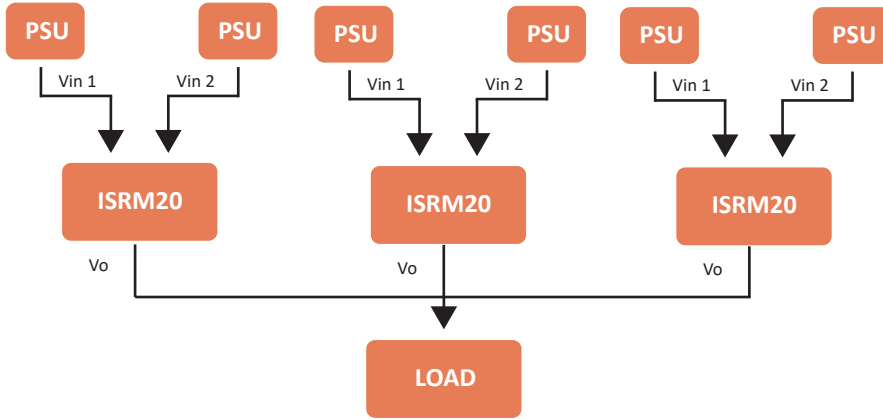
Two redundant, improved reliability



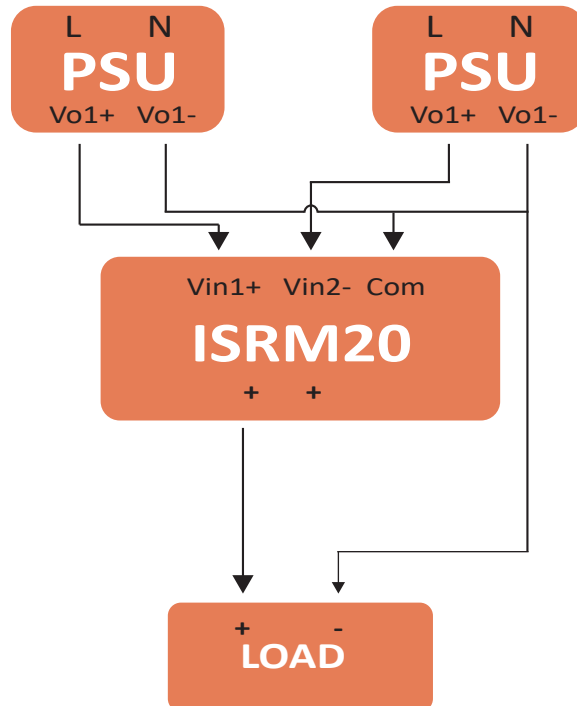
DERATING CURVE CHART

D.N+1 redundancy:

Multiple switching power supply redundancy, improve system stability



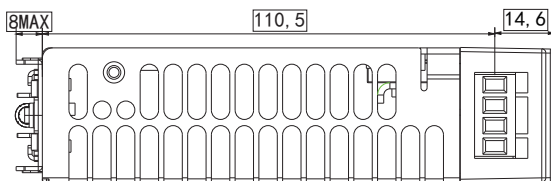
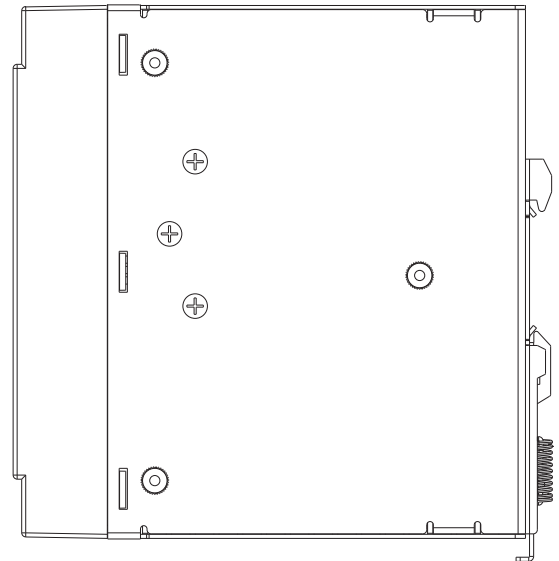
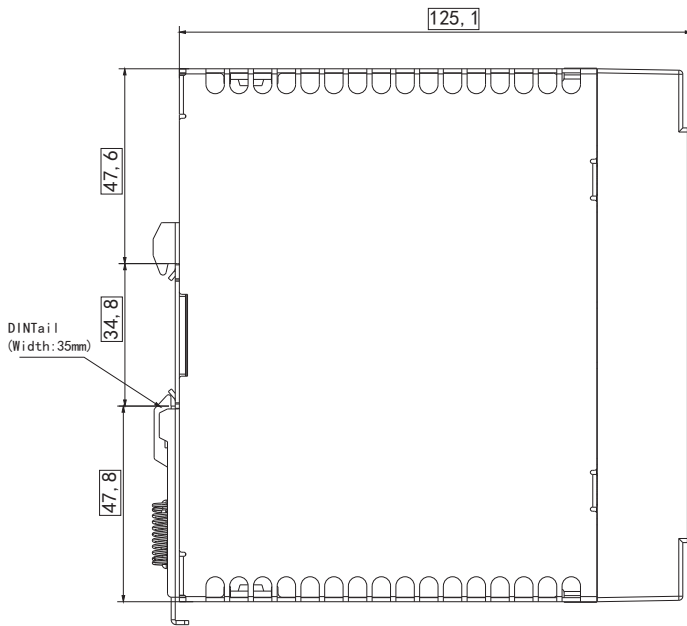
E. Cable connection reference



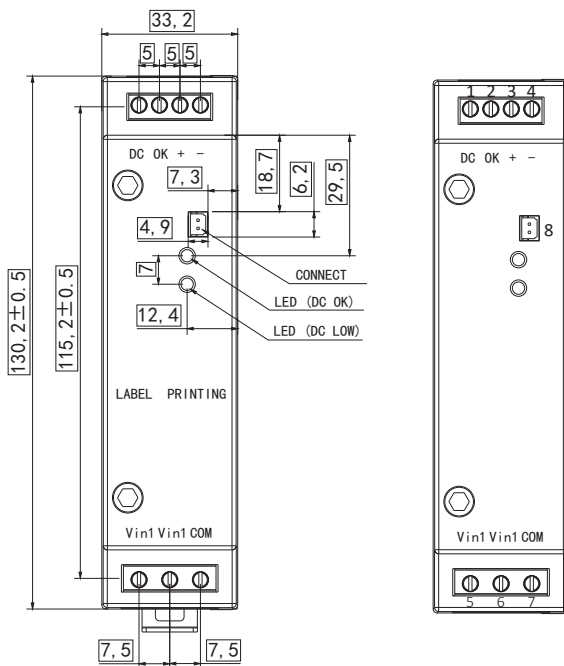
Note:

1. AC-DC module in the front stage (it is recommended to use with our LI120/240/480 series products);
2. If the output is short-circuited, the front-end AC-DC module short-circuit protection is triggered.
3. This product can not be used in parallel liters of power.
4. No matter whether any of the two AC-dcs in the front stage is abnormal or only one AC-DC is added in the front stage, the DC-OK output will alarm signal.
5. Load current should be less than the current value of the product with the lowest output current specified at the product specification with the power supply at series connection.

OVERALL DIMENSION

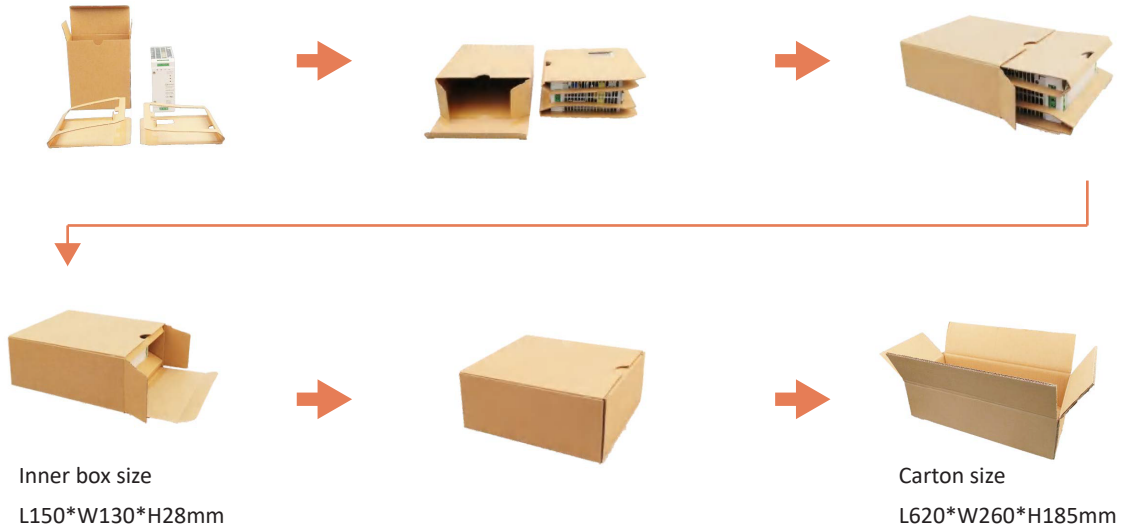


Unit:mm
Tolerance:±1.0



NO	Assignment
1	DC OK
2	
3	DC(+)Output terminal
4	DC(+)Output terminal
5	Vin1+ terminal
6	Vin2+ terminal
7	Com+ terminal

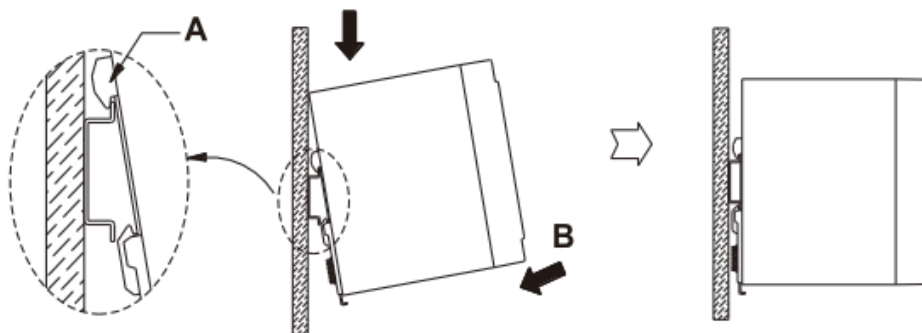
PACKAGING PARAMETER



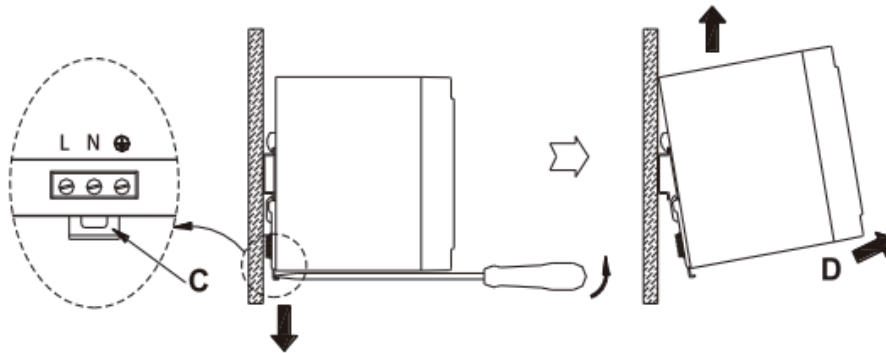
Full container quantity	Single piece weight	Gross Weight	Gross weight/box
32Pcs/Box	200g	6.4kg	8.5kg

INSTALLATION METHOD

Mounting method should be considered with airflow. Leave enough space between the units when several units are mounted together. Forced air cooling makes protection against heat better.



hang A part on the top of Rail as shown in below, then push the power supply into B direction to fix it.



Remove the power supply to D direction, pulling C part by using tools, such as a screwdriver, to downward direction.

NOTE

- (1) Please confirm if the capacity of the product is suitable for your intended application before putting it in use;
- (2) Only the rated input voltage specified on the product should be used;
- (3) Only the wires with rated capacity should be connected to this product, as allowable voltage and current is varied according to each type of wire;
- (4) Ground terminal of the power supply must be grounded before use to prevent electric shock or electro-magnetic interference;
- (5) Be cautions to keep the product clean as foreign matter near the input & output terminal or inside if the product could cause series damages;
- (6) If a fuse installed in the product blows off, the product should experience damages not only to the fuse but also to other parts as well. Therefore, the product is to be required for maintenance work from customer service department as well as replacement of the fuse;
- (7) Due to constant leakage current flows within the product, extra caution should be made if multiple number of products are used connecting to each other as total leakage current could be amounted beyond the capacity;
- (8) Be sure to avoid any physical contact with the product since some of the parts inside of the product are being functioned at high voltage, which could cause serious electric shock;
- (9) For the purpose of safety as well as reliability of the product, please avoid using the product at the following sites:
 - A place near water or fire
 - A place with high room temperature and poor ventilation
 - A place with a presence of foreign subject or dust
 - A place near volatile or flammable compounds
 - A place with high humidity
 - A place vulnerable for vibration or shock;
- (10) Do not inspect or repair the product while the power is applied;
- (11) Unauthorized modification should be avoided in order to prevent series injury or physical loss due to any malfunction;
- (12) In case of power outage while in operation, be sure to turn off the power supply.

Warranty

- (1) Repair service will be provided for free upon any mechanical, technical or functional defects during the guaranteed warranty, however, any defects or malfunction due to international infliction or negligence by customers will be repaired at the customer's expense;
- (2) Guaranteed warranty of the product runs for 3 years, while appearance and specification of the product is subject for change without any prior notification for the purpose of quality improvement of the product.