

Features

- Compact installation
- High performance
- Reliable
- Wide voltage input
- LED indicator light

RS PRO DIN Rail Power Supplies

RS Stock No.: 0558381 0558383 0558384
0558386 0558387



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

The high-performance power supply series of RS PRO is supplied in a compact 35mm DIN rail mounting package, which is extremely convenient and space saving. The DIN rail mounted power supply provides a range of rated power from 30W to 120W and accepts single-phase AC input for conversion to 12V Single DC output of 24V and 48V DC.

General Specifications

Type	Switched Mode Power Supply
AC or DC Input Voltage	100~240Vac/127~370Vdc
AC or DC Output Voltage	12Vdc;24Vdc;48Vdc
Number of Outputs	1
Special Features	Compact size, cooled by natural air convection, DC low-voltage LED Indicator light, DC power on LED indicator light, 100% Full load aging test
Mounting Type	DIN Rail Mount
Connection Type	Screw terminal type
Short Circuit Protection	Yes
Over Voltage Protection	Yes
Indication of Output Voltage	LED, continuous green light
Input Fuse	T2A / 250VAC internal
Internal Surge Voltage Protection	Varistor
For Use With	Sensors, transmitters/receivers, analyzers, PLC motors, actuators Instruments, solenoid valves, relays

Electrical Specifications

RS Stock#	Input Voltage	Output Voltage	Output Current	Output Wattage	Efficiency (Typ)
0558381	90-264 VAC	+ 12V DC	7.5A	90W	86%
0558383	90-264 VAC	+12V DC	10A	120W	88%
0558384	90-264 VAC	+ 24V DC	4.2A	100.8W	89%
0558386	90-264 VAC	+ 24V DC	5A	120W	89%

0558387	90-264 VAC	+ 48V DC	2.1A	120W	89%
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Input Specifications		
Input Electrical Phase	Single	
Input current	<3A (115V AC & Full load) <1.5A (230V AC & Full load)	
Line Frequency	47 to 63Hz	
Input Power Dissipation	140W	
Inrush current at 25°C 230V	Cold Star <40A（115VAC Full load）, Cold Star <70A（230VAC Full load）	
Efficiency (Typ.)	88%	
Leakage Current	<1mA / 230Vac@Full load	
Power Factor (Cos phi)	0.5	
Output Specifications		
Output Voltage Adjustment	Output 12V 12-14V; Output 24V 24-28V Output 48V 48-55V	
Ripple and Noise	Output 12V 100mV p-p; Output 24V 120mV p-p Output 48V 150mV p-p	
Switching Frequency	135KHz Maximum	
Rise Time	<200ms (115VAC Full load), <200ms (230VAC Full load)	
Fall time	>10ms (115VAC Full load) >16ms (230VAC Full load)	
Transient Recovery Time	2ms	
Hold Up Time	>10ms (115VAC Full load), >16ms (230VAC Full load)	
Line Regulation	± 1%	
Load Regulation	± 2%	
Voltage Isolation	Input-Output	3000V ac / 4242V dc
	Input-Ground	1500V ac / 2121V dc
	Output-Ground	500V ac / 710V dc
Isolation Resistance	Input-Output, @ 500VDC : 100MΩ	
Surge Voltage	L-N 2kV	
Electrostatic Discharge	8kV air discharge / 4 kV contact discharge	
MTBF	50,000H,MIL-HDBK-217F(25□)	

Mechanical Specifications

Height	95.3mm
Depth	108.0mm
Width	36mm

Weight	450g
Dimensions	36 x 95.3 x 108.0mm
Case Material	Plastic

Operation Environment Specifications

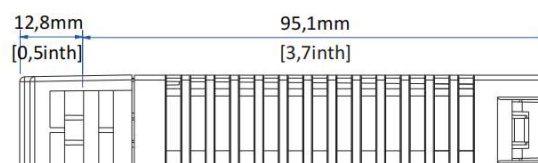
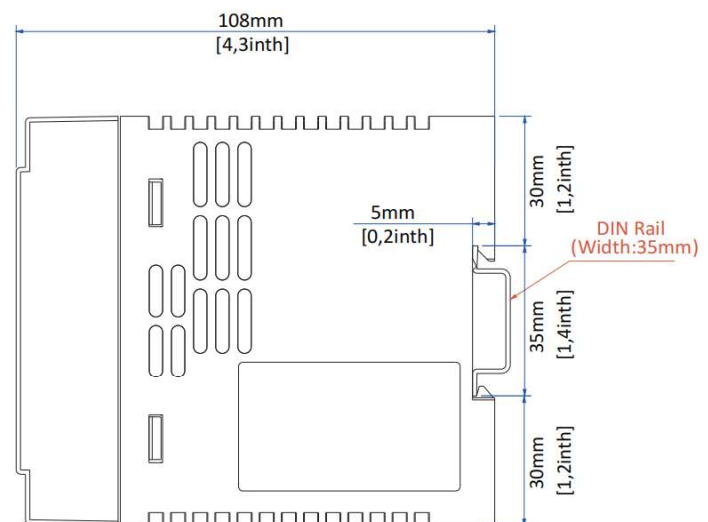
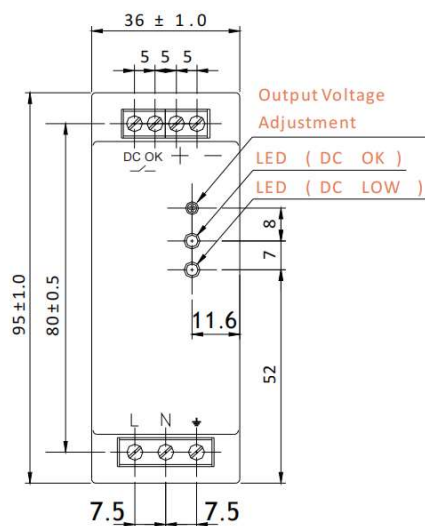
Operating Humidity	20% to 95% RH
Operating Temperature Range	Ta= -20-70℃
Storage Temperature Range	-40-+85℃, 10-95% RH, non-condensing
Cooling	Natural convection
Altitude During Operation	5000m
Pollution Degree	2
Vibration Resistance	10 ~ 500Hz, 2G 10minutes/cycle, X、Y、Z axis/60 minutes Installation: meet IEC60068-2-6

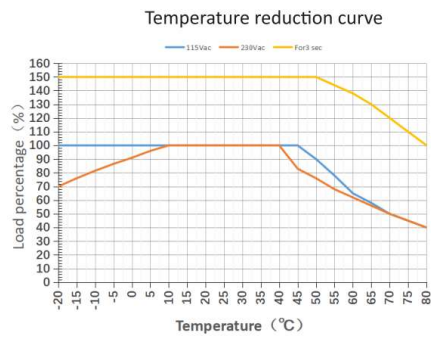
Protection Category

IP Rating	IP20
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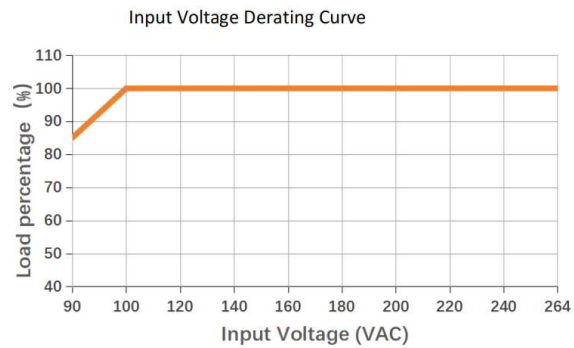
Approvals

Compliance/Certifications	SAA,TUV,CB,CE,UKCA,UL508
Standards Met	SAA,TUV,CB,CE,UKCA,UL508
Declarations	MFR Declaration of Conformity

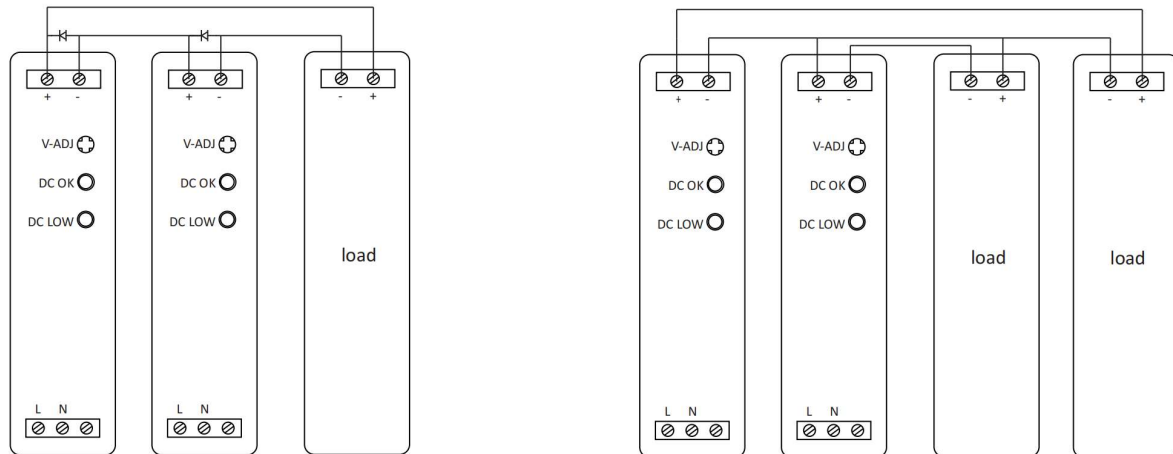




Note: Input Derating not evaluated by UL

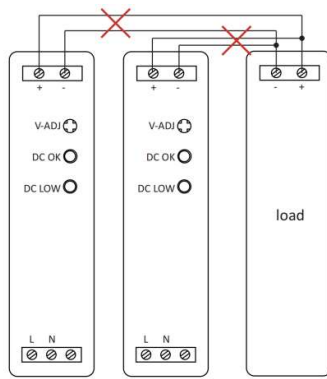


A. Series operation

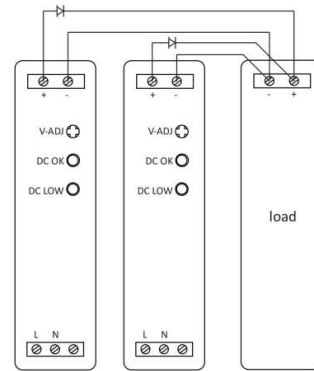


Note:

1. Series operation can be connected as shown in above;
2. 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.



Parallel Operation A
(Unable to use)

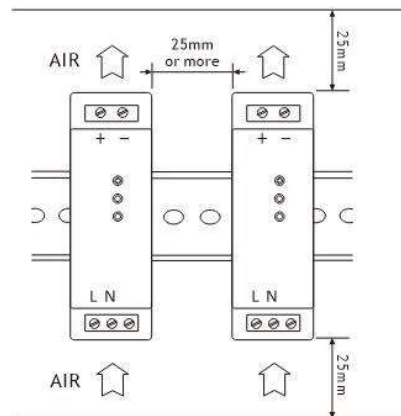


Parallel Operation B
(Backup)

Note:

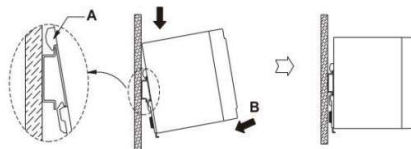
1. Parallel operation should be composed with the same products, while the connection should be as shown as "Parallel operation B";
2. In parallel operation B, current capacity cannot be increased, while it should be used for backup only. Moreover, diode that is to be added during parallel operation should be selected after considering its voltage drop, output voltage and current capacity.

C. Mounting spacing



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.

How to fix



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

d. Cautions

- (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.