



RU1 Series

Rack Mount Power Supply



- 19 in. rack mount 1 RU, 1.75 inches
- Universal AC input/Full Range
- Remote Sense DC-OK TTL signal & TTL remote control
- High efficiency up to 89%
- Protection: Short Circuit / Overload / Over Voltage / Over Temperature

Models	RU1-4012	RU1-2012	RU1-2024	RU1-1024	RU1-1048	RU1-548
Output Voltage (VDC)	13.8		27.6		48	
Output Adjustment Range (VDC)	13.5-15 V		22-27.6		43-55	
Output Voltage Tolerance	+/- 1%					
Output amperage, max continuous (w/180-260 VAC input)	35 Amps @ 12 VDC	20 Amps @ 12 VDC	20 Amps @ 24 VDC	14 Amps @ 24 VDC	10 Amps @ 48 VDC	7 Amps @ 48 VDC
Maximum Power, continuous	480 Watts	300 watts	480 Watts	300 watts	480 watts	300 watts
Dimensions, (L x W x H) Product	1.75H x 19W x 5.125D	1.75H x 19W x 4.5D	1.75H x 19W x 5.125D	1.75H x 19W x 4.5D	1.75H x 19W x 5.125D	1.75H x 19W x 4.5D
Dimensions, (L x W x H) Shipping	6H x 22W x 10D in					
WEIGHT, Shipping	7 lbs,	2.45 lbs.,	7 lbs,	2.45 lbs.,	7 lbs,	2.45 lbs.

***NOTE: Specifications are subject to change without notice**

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Section 1 | Important Safety Instructions

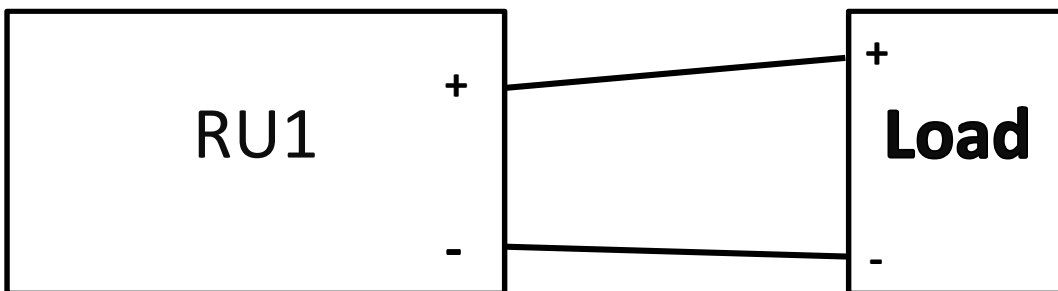
The individual user should take care to determine, prior to use or installation, whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, DuraComm makes no representation or warranty as to the merchantability, suitability or fitness of these units for any specific application.

The precision regulated power supplies operate internally from voltages in excess of 12/24/48 volts. In rare cases, voltage spikes or transients on the AC power line, or overheating, may cause a component failure in the power supply. Overloading the output will cause the overcurrent feature to operate. In either case, the cause must be determined and corrected. Failures require investigation as to cause and/or repair of the unit.

There are no user serviceable parts inside. Hazardous voltages exist inside the unit. Service and repair must be referred to qualified factory personnel.

Section 2 | Product Overview

All of the RU1 series come with at least three layers of protection from short circuit, overload, over voltage, and over temperature.



See www.duracomm.com for more information.

Section 3 | Installer Notes

- The seven place terminal block has 4 places for DC output.
2 for V+ and 2 for V-. Each place is rated for 15 Amps.
- Use 2 parallel conductors for positive and 2 for negative
- The DC outputs are NOT referenced to the chassis. The RU1 System can be used either positive or negative ground.

Conductor Attachment

The DC output terminals are 3mm diameter and a #6 forked terminal will fit exactly. The terminal may be crimped or soldered to the conductors before attaching to the DC output terminals. DO NOT solder the terminals while on the DC output studs.

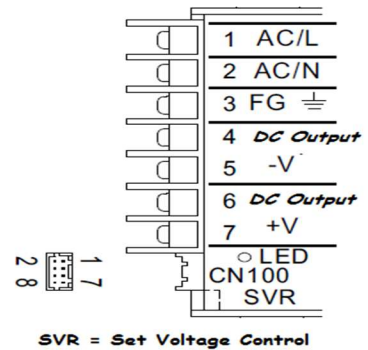
DO NOT block any of the cooling vents on the sides and always allow adequate ventilation by not installing the unit inside tightly closed spaces. The physical mounting position is not critical but the cooling vents and the load controlled cooling fan must not be blocked

Terminal Pin Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \perp		

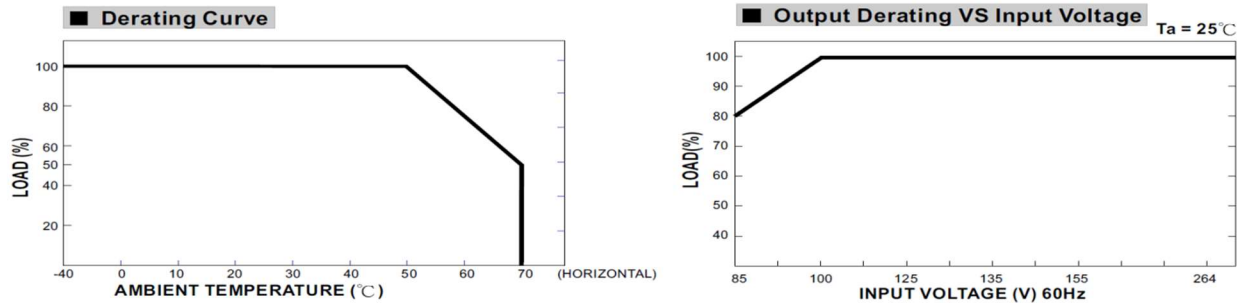
Remote Connector Pin Assignment (CN100) HRS DF11-08DP-2DS or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,4,6	NC	HRS DF11-8DS or equivalent	HRS DF11-**SC or equivalent
3	DC-OK		
5	GND		
7	+S		
8	-S		



AC Main Operating Input Voltage

The AC input is auto-ranging and will operate without adjustment from 85 VAC to 264 VAC. Maximum efficiency is realized with input voltages above 180 VAC. Linear de-rating to ~85% @ 90 VAC is recommended for AC inputs less than 180 VAC.



Section 4 | Maintenance

Conductor Pretreatment

All kinds of copper conductors can be clamped without treatment. DO NOT solder tin stranded conductors. The solder yields and fractures under high pressure. The result is increased contact resistance and excessive temperature rise. Additionally, corrosion has been observed due to the fluxes. Notch fractures at the transition from the rigid tinned part to the flexible conductors are also possible. Ferrules can be used as a protection when wiring stranded conductors. Copper ferrules prevent the current transfer from being influenced by dissimilar metals and remove the risk of corrosion. Always use the correct tool to crimp the ferrule.

Recommended Copper Wire Size for Current Capacity

(Insulated Wire, Single Conductor in free air)

Current Level in Amperes	Wire Size Requirements According to MIL-W-5088B	
	Up to 5 feet	Up to 10 feet
<7 AMPERES	20 AWG	18 AWG
14 AMPERES	18 AWG	16 AWG
20 AMPERES	16 AWG	14 AWG
30 AMPERES	14 AWG	12 AWG
40 AMPERES	12 AWG	10 AWG
50 AMPERES	10 AWG	8 AWG
70 AMPERES	8 AWG	6 AWG
100 AMPERES	6 AWG	4 AWG

Section 5 | Specifications

	RU1-4012	RU1-2012	RU1-2024	RU1-1024	RU1-1048	RU1-548
Output Voltage (VDC)	13.8		27.6		48	
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Output amperage, max continuous (w/180-260 VAC input)	35 Amps @ 12 VDC	20 Amps @ 12 VDC	20 Amps @ 24 VDC	14 Amps @ 24 VDC	10 Amps @ 48 VDC	7 Amps @ 48 VDC
Maximum Power, continuous	480 Watts	300 watts	480 Watts	300 watts	480 watts	300 watts
Maximum Ripple and Noise	150 mV p-p max				240 mV p-p max	
Input Voltage Range (auto-range)	85-264 VAC					
	47-63 Hz					
Max inrush current, single cycle	35A/115VAC			70A/230VAC		
Short Circuit Protection	Constant current limiting recovers automatically after fault condition is removed					
Overload Protection (operates)	Typical 105-145%					
Line Regulation	+/- 0.3%		+/- 0.2%			
Load Regulation	+/- 0.5%	+/- 0.5%	+/- 0.5%	+/- 0.5%	+/- 0.2 %	+/- 0.5%
Fan Control	Load Controlled >195°F (90°C) auto output shutdown					
Operating Temperature Range	-40 - 158 F (-40 ~ +70 C)					
Withstand Voltage	I/P-O/P:3KVAC		I/P-FG:2KVAC		O/P-FG:0.5KVAC	
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25 / 70% RH					
Dimensions, (L x W x H) Product	1.75H x 19W x 5.125D in	1.75H x 19W x 4.5D in	1.75H x 19W x 5.125D in	1.75H x 19W x 4.5D in	1.75H x 19W x 5.125D in	1.75H x 19W x 4.5D in
Dimensions, (L x W x H) Shipping	6H x 22W x 10D in					
WEIGHT, Shipping	8.5 lbs.	4 lbs.	8.5 lbs.	4 lbs.	8.5 lbs.	4 lbs.

Section 6 | Warranty

DuraComm warrants to the initial end user, each power supply manufactured by DuraComm to be free from defects in material and workmanship when in normal use and service for a period of three years from the date of purchase from an authorized DuraComm dealer.

Should a product manufactured by DuraComm fail or malfunction due to manufacturing defect, or faulty component, DuraComm, at its option, will repair or replace the faulty product or parts thereof, which, after examination by DuraComm, prove to be defective or not operational according to specifications in effect at the time of sale to the initial end user. The product that is replaced or repaired under the provisions of this warranty will be warranted for the remainder of the original warranty period, only, and will not extend into a new three year warranty period.

The limited warranty does not extend to any DuraComm product which has been subject to misuse, accidental damage, neglect, incorrect wiring not associated with the manufacturer, improper charging voltages, or any product which has had the serial number removed, altered, defaced, or changed in any way.

DuraComm reserves the right to change, alter, or improve the specifications of its products at any time, and by so doing, incurs no obligation to install or retrofit any such changes or improvements in or on products manufactured prior to inclusion of such changes.

DuraComm requires any product needing in or out of warranty service to be returned to DuraComm. All requests for warranty service must be accompanied by proof of purchase, such as a bill of sale with purchase date identified. DuraComm is not responsible for any expenses or payments incurred for the removal of the product from its place of use, transportation or shipping expenses to the place of repair, or return expenses of a repaired or replacement product to its place of use.

The implied warranties that the law imposes on the sale of this product are expressly LIMITED, in duration, to the three (3) year time period specified herein. DuraComm will not be liable for damages, consequential or otherwise, resulting from the use and operation of this product, or from the breach of this LIMITED WARRANTY. Some states do not allow limitations on the duration of the implied warranty or exclusions or limitations of incidental or consequential damages, so said limitations or exclusions may not apply to you. This warranty gives you specific legal rights which vary from state to state. This warranty is given in lieu of all other warranties, whether expressed, implied, or by law. All other warranties, including WITHOUT LIMITATION, warranties of merchantability and fitness or suitability for a particular purpose, are specifically excluded. DuraComm reserves the right to change or modify its warranty and service programs without prior notice.

Section 7 | Contact Us

Location

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