

Issue Date: November 30, 2011




## Did You Know?

- CliQ II Redundancy Module 20A & 40A supports:
  - Back up power (Redundancy Mode)
  - Increasing power (Parallel Mode)
- CliQ II Redundancy Module 20A supports output 24-48Vdc and current up to 12.5A
- CliQ II Redundancy Module 40A supports output 24-48Vdc and current up to 25.0A
- Worldwide safety marks in USA, Canada, Europe and Asia

For more information, visit [www.deltapsu.com](http://www.deltapsu.com)

## CliQ II Redundancy Solutions

Delta Electronics adds two Redundancy Modules, DRR-20A and DRR-40A to its CliQ II series of DIN Rail power management products. They are compatible with both 24Vdc and 48Vdc power supplies, offering redundancy functionality. These modules can also be used for Parallel operation.

The Redundancy function ensures zero system down time for the customer when one of the power supply fails or is being disconnected unexpectedly. Under normal circumstances, both power supplies are each operating at approximately 50% load. When one fails, the other automatically takes over, thus providing 100% load, and ensures that the system continues running.

The fault relay function alerts the user of any failure through potential free contacts. The LED lights on the Redundancy Modules also indicate the health of each individual power supply.

SPECIFICATIONS	DRR-20A	DRR-40A
Nominal Input Voltage	24 - 48Vdc	24 - 48Vdc
Nominal Current	20A	40A
Input Voltage Alarm / Relay Contacts	<b>24V System:</b> Both $V_{in1}$ & $V_{in2} > 18V \pm 5\%$ or $< 30V$ relay contacts <b>48V System:</b> Both $V_{in1}$ & $V_{in2} > 36V \pm 5\%$ or $< 60V$ relay contacts	
Nominal Output Voltage $U_N$	$V_{in} - 0.65V$ (typ.)	$V_{in} - 0.65V$ (typ.)
Efficiency	$> 97\%$ typ.	$> 97\%$ typ.

## Upcoming Events

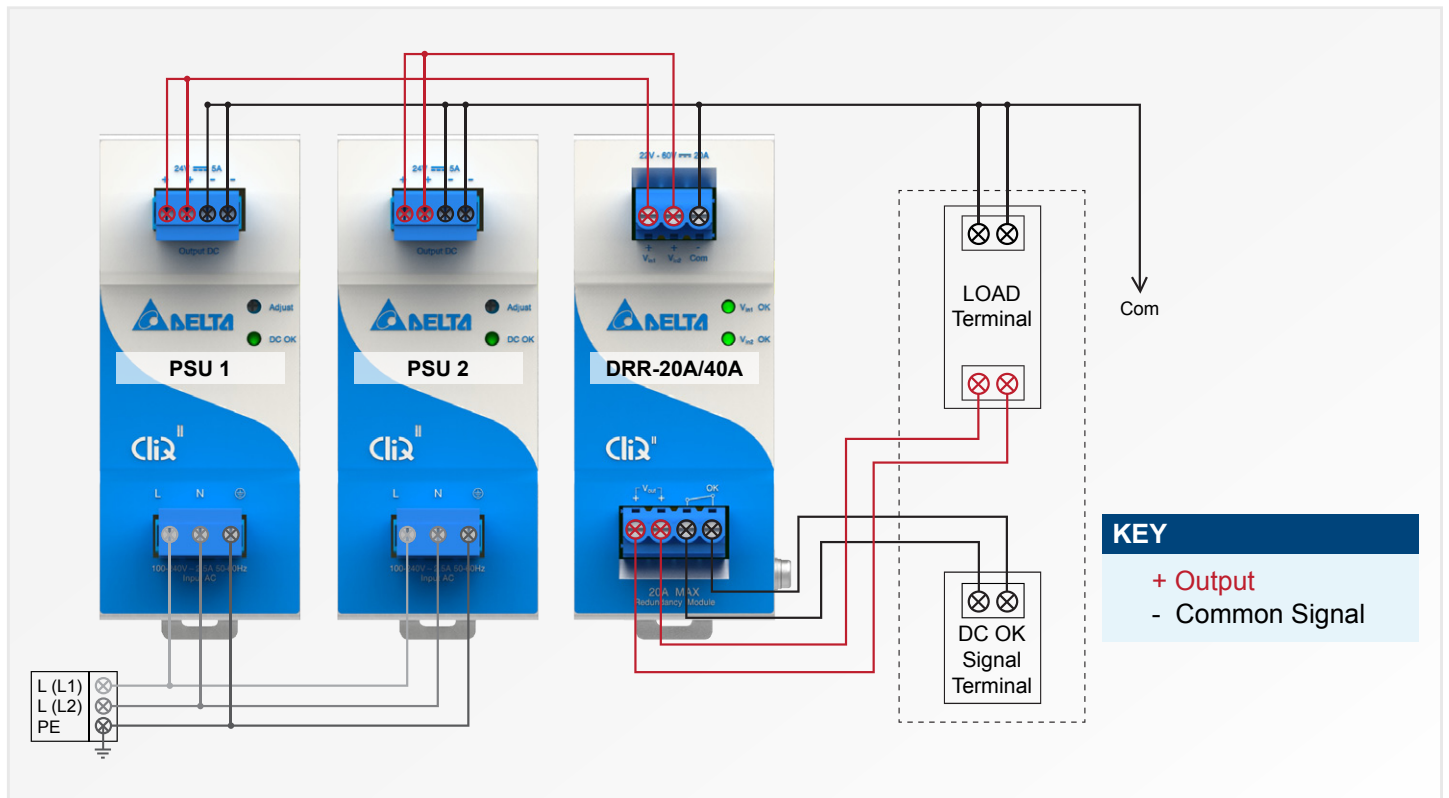
- **Hannover Automation 2011**  
Location: Bangalore, India  
Dates: 6 – 9 December 2011
- **India Packaging Show 2011**  
Location: New Delhi, India  
Dates: 7 – 10 December 2011
- **Elecrama 2012**  
Location: Mumbai, India  
Dates: 18 – 22 January 2012
- **IMTEX 2012**  
Location: Bangalore, India  
Dates: 19 – 24 January 2012

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# Typical Redundancy Application



## How to Install CliQ II 24Vdc Redundancy Module:

### Step 1.

Measure the output voltages at no load from Vin 1 to Com i.e. Voltage Vin 1 to Com and Voltage Vin 2 to Com of Redundancy module. If the voltages are not the same, follow Step 2. If same, skip to Step 3.

### Step 2.

Adjust the output voltages, with the help of VR on the Power Supply front panel marked as ADJUST, to the same level. For example, if PSU 1 is

measuring 24.15Vdc and PSU 2 is measuring 24.25Vdc, adjust the output voltage of one to be the same as the other.

### Step 3.

Connect the PSU to the end system load and measure the output voltages from Vin 1 to Com i.e. Voltage Vin 1 to Com and Voltage Vin 2 to Com of Redundancy module. Ensure that the output voltages are the same even after the 2 Power Supplies are

connected to load. If not, adjust them as described in Step 2. A difference of both PSU  $\pm 25\text{mV}$  is acceptable.

*\*The Redundancy Modules can be used for all PMC 24V, CliQ 24V, CliQ II 24V and 48V models.*

*For further enquiries, please visit [www.deltapsu.com](http://www.deltapsu.com) or email [vl@delta.co.th](mailto:vl@delta.co.th).*

## Alternative Applications

Fig.1: Single Use

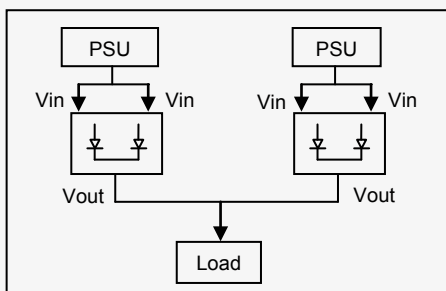


Fig.2: N+1 Redundancy

