



DELTA

3RU Series Operator manual

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1.0 Introduction

The **Delta 3RU** Series consist of four products that perform power distribution. Each model accepts a single 3-phase power input and provides multiple single-phase outputs. All products include RCD output protection, individual MCB per channel and power status indicators. The power status indicators include “power available” to indicate the presence of 3-phase power, a “Neutral fault” indicator and a “Earth fault” indicator.

Two models also have integrated 5 way DMX512A compatible data splitters.

The **Delta 3RU** Series are built into a 3RU 19” rack mounted chassis and have a variety of output connector options to suit installation requirements.

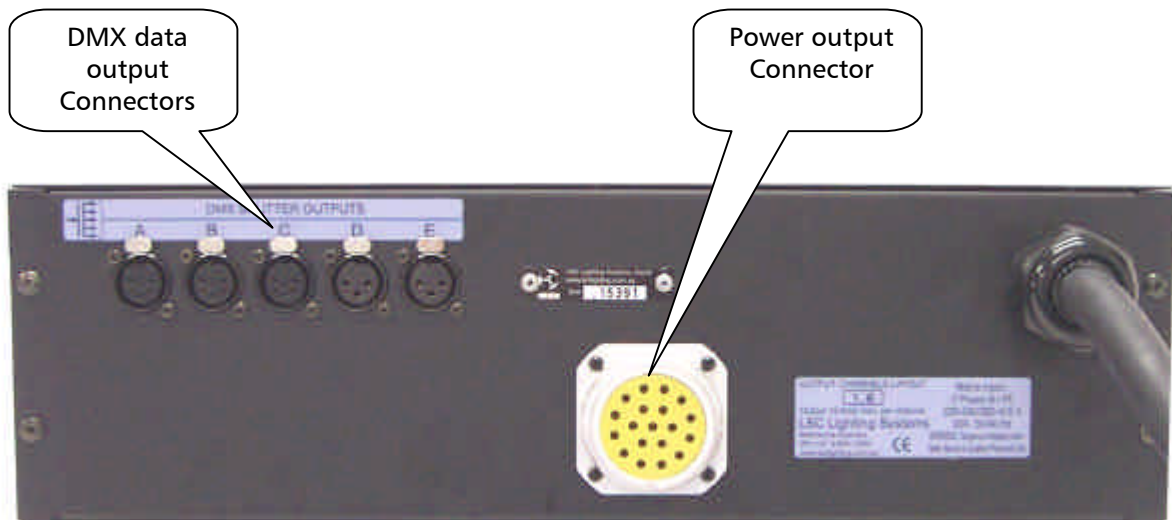
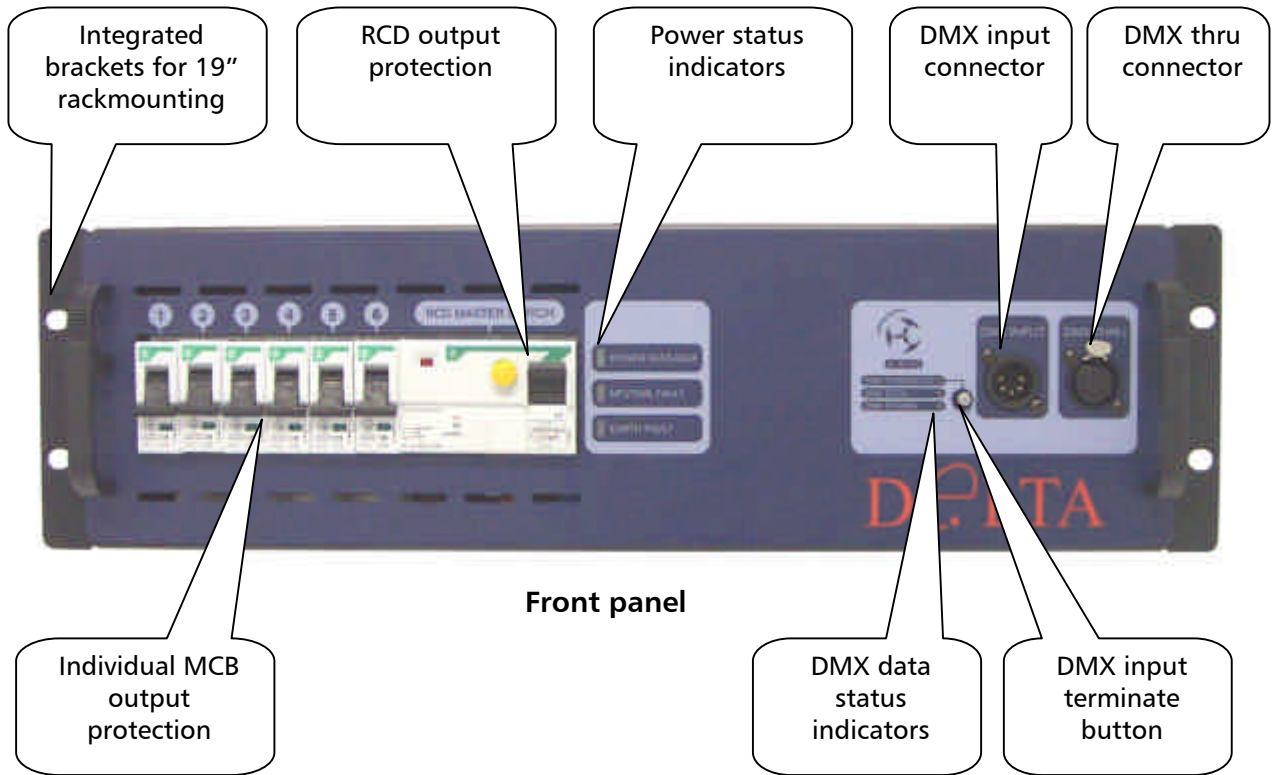
The DMX512A compatible models are supplied with a single 5 pin DMX input XLR plug with push button termination and a pass-thru 5 pin DMX output XLR socket to allow more splitters to be cascaded to increase the total number of DMX outputs. The single DMX input is electrically isolated then split into five separately buffered DMX output circuits that are supplied with three 5 pin XLR sockets and two 3 pin XLR sockets.

Visual indicators include a “DMX terminate” to show that the DMX input termination is active; a “DMX data” indicator to show when DMX data is detected and a “DMX power” indicator to show that power is available to the internal DMX circuitry.

All **Delta 3RU** data splitters have full input to output isolation, input and output EMI filtering together with short circuit and overvoltage protection.

2.0 Getting Connected

The pictures below show the front and rear connections of the Delta 3RU DT6S/16X.



3.0 Operation

The **Delta 3RU** power/DMX splitters have been designed for quick and easy operation. A brief operational instruction is detailed below.

1. Switch all MCB's to the "off" position. Confirm the RCD Master switch is switched to the "on" position. Make the required connections to the power output connectors.
2. Connect the **Delta 3RU** to a suitable power source and apply power. The "Power available" and "DMX power" indicators will illuminate. If the "Neutral fault" or "Earth fault" indicators illuminate, immediately remove power and check the power source.
3. Individual MCB's can now be switched to "on" as required.
4. For the DMX equipped models, connect a DMX source cable into the DMX input connector of the **Delta 3RU**. The "DMX data" light will illuminate if DMX data is present.
5. If the splitter is to be the last device at the end of the DMX cable, then press the termination button. The "DMX terminate" indicator light will now illuminate.
6. Connect the required DMX output cable/s to the DMX output connectors at the back of the chassis.
7. DMX data present at the DMX input connector is now internally routed to all five DMX output connectors.

4.0 DMX Cable selection

The performance of any DMX network is directly related to the quality of cable chosen to convey the DMX information. DMX512 has a moderate data transmission rate of 250 Kbits/s, and therefore requires selection of a cable that does not significantly distort the signal or give rise to signal reflections.

Typical characteristics for a good DMX network cable include;

- Twisted pair with Nominal impedance of 100-120 ohms.
- low capacitance.
- Fully encased with braid **and** foil shielding.
- Conforms to EIA 485 requirements.

Cables used with audio systems are **not** suitable for DMX512 networks as they typically have higher capacitance, incorrect characteristic impedance and minimal shielding. At DMX512 data rates this can cause bit time distortion and signal reflections/overshoot.

4.0 Delta 3RU Specifications

Model	DT12/10A	DT12/13A	DT9S/13A	DT6S/16W	DT6S/16X	DT6S/16UK
Number of power output circuits	12	12	9	6	6	6
Output circuit capacity	10 Amp	13 Amp	13 Amp	16 Amp	16 Amp	16 Amp
Output circuit connector	Australian 3 pin	Australian 3 pin	Australian 3 pin	Weiland	Socapex	BSS UK
Input power RCD module	63 Amp	63 Amp	63 Amp	63 Amp	63 Amp	63 Amp
Input power status indicators	Yes	Yes	Yes	Yes	Yes	Yes
DMX 5 pin Input & Thru connectors	-	-	Yes	Yes	Yes	Yes
DMX output connectors	-	-	3 x 5 pin 2 x 3 pin	3 x 5 pin 2 x 3 pin	3 x 5 pin 2 x 3 pin	3 x 5 pin 2 x 3 pin
Inbuilt DMX termination switch	-	-	Yes	Yes	Yes	Yes
DMX Terminator Active LED	-	-	Yes	Yes	Yes	Yes
DMX512 data LED	-	-	Yes	Yes	Yes	Yes
Galvanic Isolation barrier(Volts)	-	-	1000	1000	1000	1000
Short Circuit Protected	-	-	Yes	Yes	Yes	Yes
EMI Filtered Outputs	-	-	Yes	Yes	Yes	Yes
DMX512-A compatible	-	-	Yes	Yes	Yes	Yes
Universal DMX Power Supply (VAC)	-	-	85-264	85-264	85-264	85-264
Auto Frequency Selection (Hz)	-	-	47-63	47-63	47-63	47-63
19" Rack Mount 3RU Chassis	Yes	Yes	Yes	Yes	Yes	Yes
Conforms to CE regulations	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions (mm)	480W x 133H x 275D.					
Weight (kg)	9.0 unpacked, 20.0 packed.					
Construction	All models are made from corrosion resistant steel finish in black and grey powdercoat with rear screened polycarbonate labels and integrated 19" rackmount brackets.					

5.0 DMX Connector pin assignments

Connector pin number	XLR 5 pin input connector	XLR 5 pin thru connector	XLR 5 pin output connector	XLR 3 pin output connector
Pin 1	Common	Common	Ground	Ground
Pin 2	DMX -ve in	DMX -ve thru	DMX -ve out	DMX -ve out
Pin 3	DMX +ve in	DMX +ve thru	DMX +ve out	DMX +ve out
Pin 4	Looped through	Looped through	Looped through	Not used
Pin 5	Looped through	Looped through	Looped through	Not used



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