

PDU-10 Power Controller

The **PDU-10** is a multi-channel solid state power switch with full microprocessor control, providing intelligent supply switching, monitoring and fusing functions for **12V** or **24V** applications. It is a fully modular and multi functional Power Distribution Unit that can be used stand-alone or as a distributed system using CAN interfacing for communication with dataloggers, ECUs, membrane panels and display systems. The **10** inputs and **10** outputs are calibrated using the **unique** fully schematic based software package '**PDUSetup**'. One output has **25A** continuous capability with **50A** peak loads and the remaining 9 outputs are capable of **17A** continuous and **25A** peak loads. Flash, latch and logic components can be used in **any** combination and simulated before programming. The validated and debounced state of all hard and soft (CAN) inputs is available to the schematic along with the trip state of outputs, to allow automatic backup functions to be implemented. All input and output states and currents are provided on **CAN** for connection to logging or telemetry systems.



General	Microprocessor controlled power switching, monitoring and fusing unit Fully configurable input to output schematic mapping with latch, flash, and logic functions Fully configurable inrush current, high current and low current trips Control and diagnostic communication with ECUs, datalogging or telemetry equipment Current monitoring on all outputs available on datastream or PC
Outputs	10 High Side or Low Side switched power outputs with individual trip configuration Maximum current per output 17A continuous, 34A transient conditions 64 soft outputs via CAN
Inputs	10 logic inputs with configurable voltage set points, pull up/down, active low/high, validation time and debounce time 64 soft inputs via CAN with configurable validation time and debounce time
Temperature	Internal temperature monitoring
Fault Pin	Single pin fault indicator lamp output and reset input
Interfaces	Ethernet for pc configuration and monitoring connection 2 CAN 2.0B interface for communication with other controllers or logging systems
Power Supply	6.5V to 30V input voltage range (for 12V or 24V systems)
Physical	35 Way AMP sealed connector Machined aluminium case sealed to IP67 Maximum dimensions including the connectors are 146 x 121 x 39 mm Operating Temperature -25 to +85°C Total mass ~ 390 grams

PDU10 Pinout

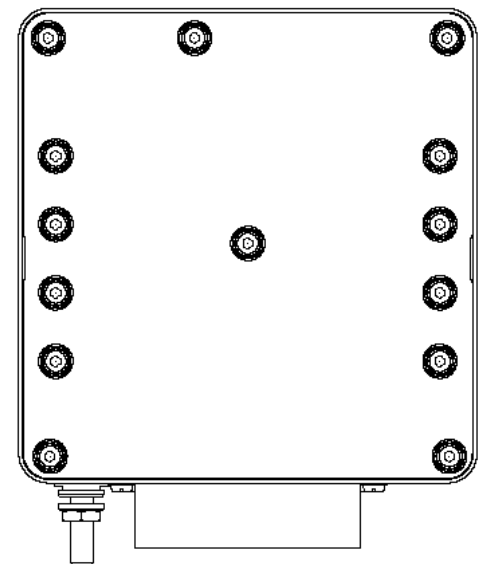
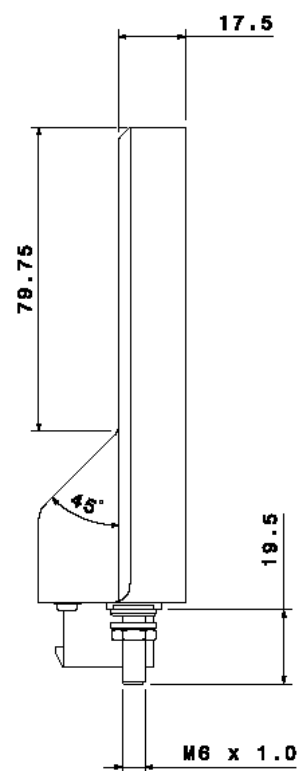
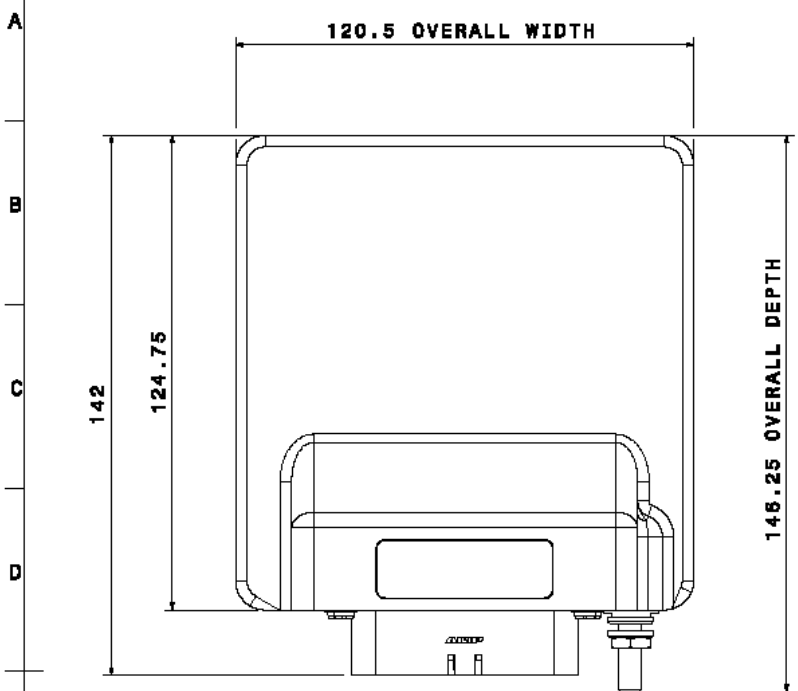
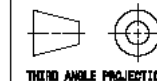
Mating Connector: 35Way Connector Kit (Blue)

PIN	FUNCTION
1	CONNECTED INTERNALLY TO PIN 2
2	OUT #01
3	OUT #02
4	DO NOT CONNECT
5	OUT #03
6	OUT #04
7	OUT #05
8	OUT #06
9	OUT #07
10	OUT #08
11	OUT #09
12	OUT #10
13	INPUT #01
14	INPUT #02
15	INPUT #03
16	INPUT #04
17	INPUT #05
18	INPUT #06
19	INPUT #07
20	INPUT #08 / WARNING AND RESET SWITCH
21	INPUT #09
22	INPUT #10
23	LAN RX +
24	SENSOR GROUND
25	5V OUT
26	CAN HI #01
27	CAN LO #01
28	CAN HI #02 ⁽¹⁾
29	CAN LO #02 ⁽¹⁾
30	DO NOT CONNECT
31	LAN TX -
32	LAN TX +
33	LAN RX -
34	BATTERY SUPPLY
35	POWER GROUND

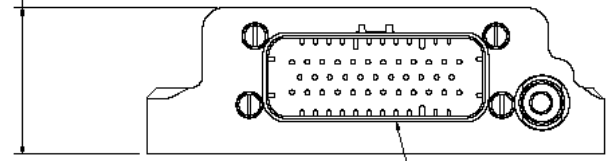
FOOTNOTES:

⁽¹⁾ LR internal use only or custom projects

LFR-282-01A



38.5 OVERALL HEIGHT




35 WAY AMP CONNECTOR

GENERAL TOLERANCES:	
LINEAR	0.50 ±0.05
ANG	0.5 ±0.2
RADIAL	0 ±0.5
ANGULAR	±1°

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NOTES: UNLESS OTHERWISE STATED

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm)
2. THREADS: ISO COARSE TO CLASS 6H/6g U.O.S
3. GENERAL FINISH: REMOVE BURRS & LIGHTLY BREAK SHARP EDGES
4. DO NOT SCALE

01A	-	RELEASED FOR MANUFACTURE	TGB	TGB	15/101
00A	-	RELEASED FOR INFORMATION & LAYOUT ONLY	TGB		16/101
Issue	Ref.	Details	Drn.	App'd.	Date
Title			Date		
PDU10 - Installation Assembly					
Dwg. No.		LFR-282-01A	Drawn by		
Mtrl.		N/A	 Life Racing Ltd Unit 6, Repton Close Burnt Mills Ind. Estate Basildon Essex, SS13 1LE www.liferacing.com Tel: 01206 274421 Email: info@liferacing.com		
Heat Treat.		N/A			
Surface Finish		N/A			
Scale	1:1	Size	A2	Sheet	1 of 1
		Qty per Assy	1		