

BASIC

- 34 High power outputs for motors
- 20 Low power outputs for lamps, solenoids etc.
- 2 Stop button support
- 4 Fan support
- 6 H-Bridge for actuators and low power motors
- Step down for computer power (19.5V)
- Up to 2 CAN lines
- Up to 4 RS-232 Serial communications
- Up to 6 RS-485 Serial Communication
- Up to 4 additional Step downs for 12V or 5V.
- Up to 16 Analog Sensors
- Up to 16 switch/button Sensors
- 32 digital sensors
- Up to 4 pressure sensors (optional)

FEATURES

Function	Details
High Power outputs	<ul style="list-style-type: none"> • Current up to 6A on single output • Peak power up to 20A • Output pins can be combined for higher current loads (up to 42A) • Overcurrent Protection (OCP)
Low Power outputs	<ul style="list-style-type: none"> • Current up to 1A on single output • Peak power up to 2.7A • Output pins can be combined for higher current loads (up to 4A) • Overcurrent Protection (OCP)
H-Bridge	<ul style="list-style-type: none"> • Current up to 2A • Short circuit support • Integrated Current Regulation • Overcurrent Protection (OCP) • Automatic Fault Recovery
Fans	<ul style="list-style-type: none"> • Current 700mA • PWM control • TACH input*
Step-downs	<ul style="list-style-type: none"> • Switch ON/OFF • Output "power good" reference • Step-down for pc (19.5V)
Safety	<ul style="list-style-type: none"> • Two Stop buttons supported • Output disabling with stop button •
Analog Sensors	<ul style="list-style-type: none"> • Up to 16 sensors supported • Sensor power up to 200mA* • Selectable sensors voltage
Digital Sensors	<ul style="list-style-type: none"> • Up to 48 digital sensor inputs • Selectable sensors voltage • Up to 8 independent power lines •
Load Cells	<ul style="list-style-type: none"> • Supported 2 load cells *

Parameter	Parameter Name	Value			Unit
		Min	Typical	Max	
	Operating voltage:	20	24	32	V
	Continuous current	-	40	50	A
	PB-DRV terminal output current	-	-	40	A
	PB-PRI terminal output current	-	-	30	A
	PB-12V terminal input voltage	6	12	32	V
	PB-12V terminal input current	-	-	40	A
	PB-UPS terminal input current	-	-	30	A

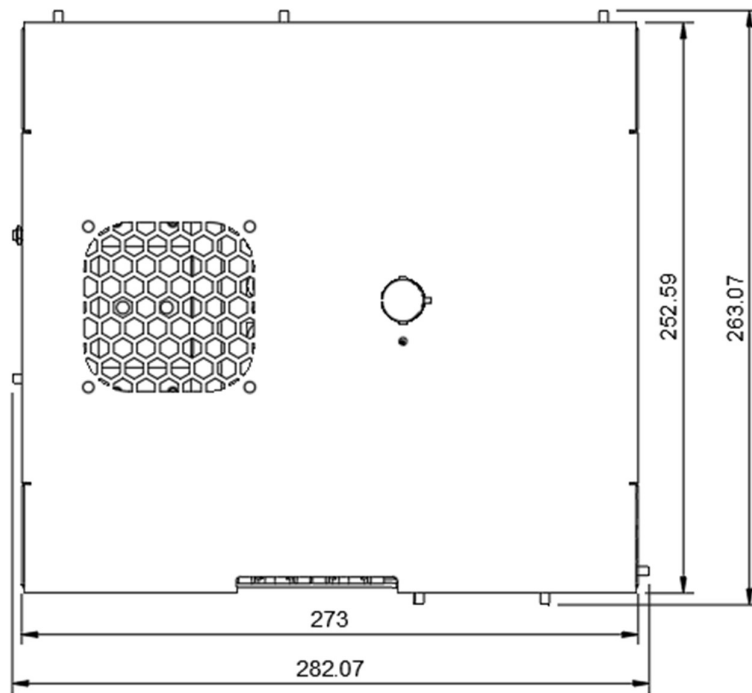
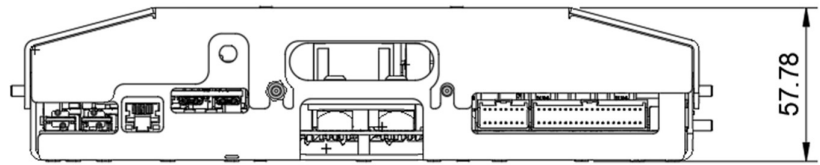
Electrical Characteristics by feature groups

Feature group	Current limit	Unit
HIGH POWER OUTPUT	6*	A
LOW POWER OUTPUT	1*	A
H-BRIDGES	2	A
STEP-DOWNS	6	A
FANS	700	mA
STOP LED	200	mA
AIN-VCC-*	200	mA
USS-VCC-*	200	mA

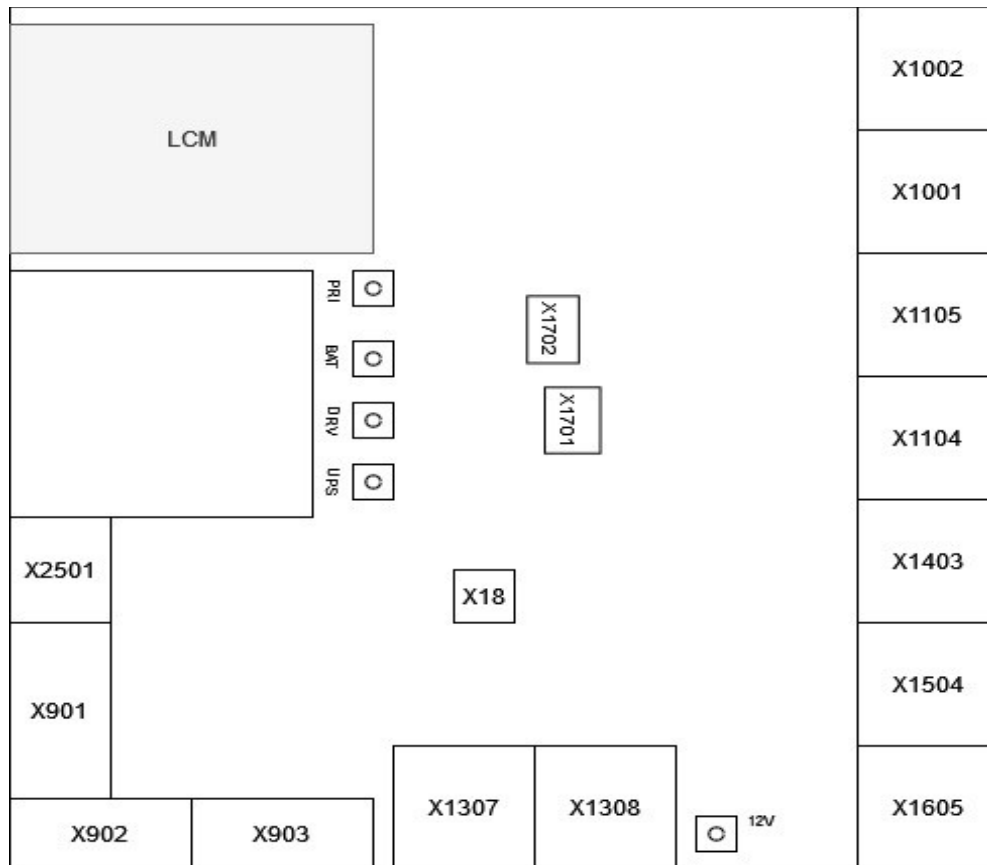
*Can connect more outputs from the same cluster for higher current

SPECIFICATIONS

- **Dimensions:** 283x263x58mm
- **Weight:**
- **Communication:** ethernet,
- **Operating temperature:** 0 to 50 °C
- **Storage temperature:** -20 to 70 °C
- **Humidity:** 10 to 90% RH (non-condensing)

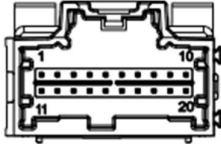
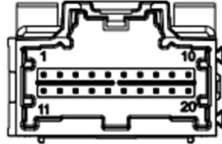
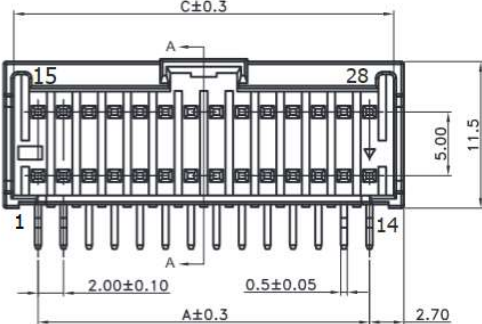
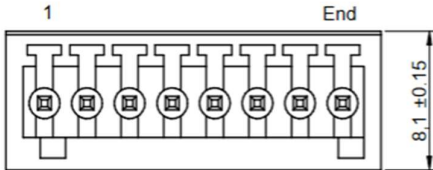
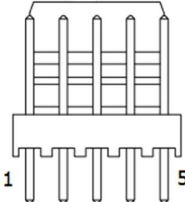


CONNECTORS



PDM connectors	Connector manufacturer	Connector part number
X1002	Molex	34690-0201
X1001	Molex	34690-0201
X1105	Molex	34690-0201
X1104	Molex	34690-0201
X1403	Molex	34690-0200
X1504	Molex	34690-0200
X1605	Molex	34690-0200
X1308	Molex	34690-0200
X1307	Molex	34690-0200
X903	Würth Elektronik	62404021722
X902	Würth Elektronik	62404021722
X901	Würth Elektronik	62404021722
X2501	Würth Elektronik	62401621722
X1701	Molex	47053-1000/ 22272041
X1702	Molex	47053-1000/ 22272041
X18	Würth Elektronik	691382000002

Connector pinout schematic:

<div>X1002</div> <div>X1001</div> <div>X1105</div> <div>X1104</div> <div>X1403</div> <div>X1504</div> <div>X1605</div> <div>X1308</div> <div>X1307</div>	<div><div></div><div>POLARIZATION OPTION A P/N 346900200</div></div> <div><div></div><div>POLARIZATION OPTION B P/N 346900201</div></div>
<div>X903</div> <div>X902</div> <div>X901</div> <div>X2501</div>	<div></div>
<div>X18</div>	<div></div>
<div>X1701</div> <div>X1702</div>	<div></div>

QUICK SETUP GUIDE

1. Connect PDM to Battery with Anderson connector
2. Add Stop button (minimum requirements connect Stop Buttons NC contacts to DRIVER_DIS and DRIVER-DIS_GND pins on X2501 Connector).
3. Connect Light tower wires to X1104 connectors A1, A2 and A11 contacts.
4. **Connect Ethernet to pc**
5. Turn on System-ON switch.