TRYLECHD®

Power Distribution Unit (PDU-6)

Revision: 2025.03.27 #2

Simplified Fault-Finding | Minimised Downtime | Seamless Aftermarket Fitment | No OEM Harness Interference

TRYLECHD PDU-6: A ROBUST & COST-EFFECTIVE POWER DISTRIBUTION SOLUTION

Backed by years of in-field experience, Trysome has engineered a **durable and cost-effective power distribution solution** designed to withstand the harsh conditions of the African market.

The **PDU-6**, part of the **TrylecHD Power Distribution Unit family**, acts as a centralised power hub, simplifying aftermarket fitments for machines and equipment while maintaining OEM integrity.

Key Features & Benefits:

- **Standalone Operation** – Operates independently with just a **24 V power source, ground, and an ignition signal** to control outputs.
- **Seamless Aftermarket Integration** – Provides a dedicated connection point for **ignition, starter signal, and alternator R-wire/W-terminal**, eliminating the need to modify the OEM harness.
- **Effortless Troubleshooting & Reduced Downtime** – Simplifies fault-finding and enhances operational efficiency.
- **Smart Power Management** – Features **push-button triggered outputs with delayed power-off** (e.g., for boarding lights) and ignition-based power outputs.
- **Superior Durability** – Built with **independent resettable fuses** for each power output pin and **rubber mounts** to withstand shock and vibration.

Built for Performance in Demanding Environments

- **Rugged Stainless-Steel Enclosure** – Designed to endure tough mining conditions.
- **Highly Configurable** – Customisable to meet specific application needs.
- **Dual Voltage Outputs** – Provides **both 24 V and 12 V current-protected outputs**.
- **Independent Resettable Fuses** – Enables quick and efficient troubleshooting.
- **Automotive-Grade Connectors** – Ensures long-lasting, reliable performance.

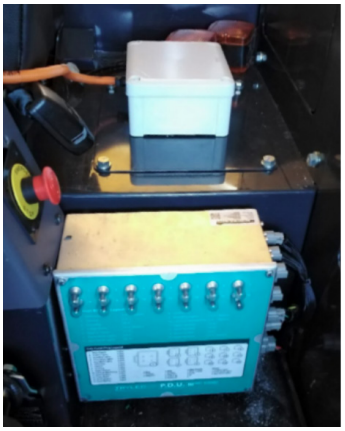
Engineered for **reliability and efficiency**, the **TrylecHD PDU-6** delivers **robust power management** while protecting OEM wiring, making it an essential solution for heavy-duty machinery.

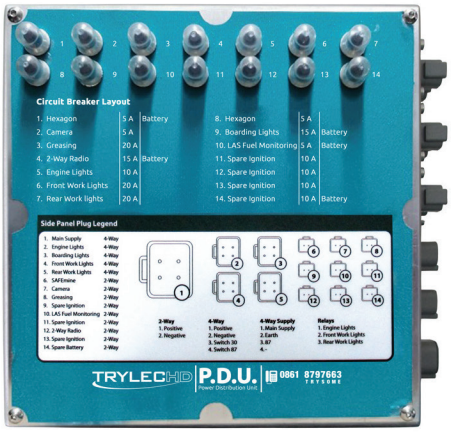
APPLICATION

- Automotive Off-Highway

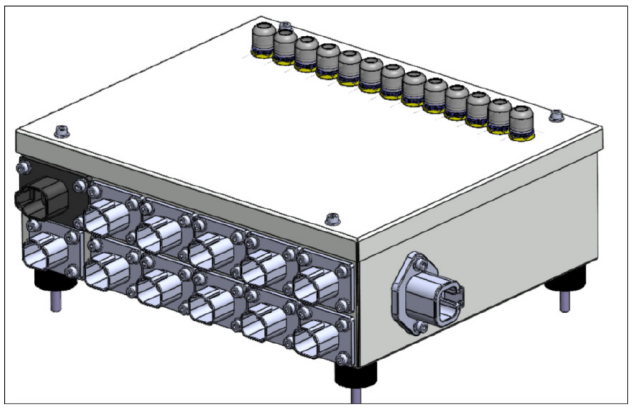
INSTALLATION & SAFETY GUIDELINES

- This device must be installed by a qualified Trysome auto electrician, trained on the product. Trysome accepts no liability for damages resulting from installations performed by unauthorised auto electricians.
- Isolate or disconnect all power sources before working with the PDU.
- Ensure proper wiring and secure all connections.
- Do not open or modify the PDU. Doing so will void the product warranty and may severely compromise the safety of the entire machine. For assistance, contact Trysome Auto Electrical Engineering.
- Mount the device securely to ensure stability and reliability.





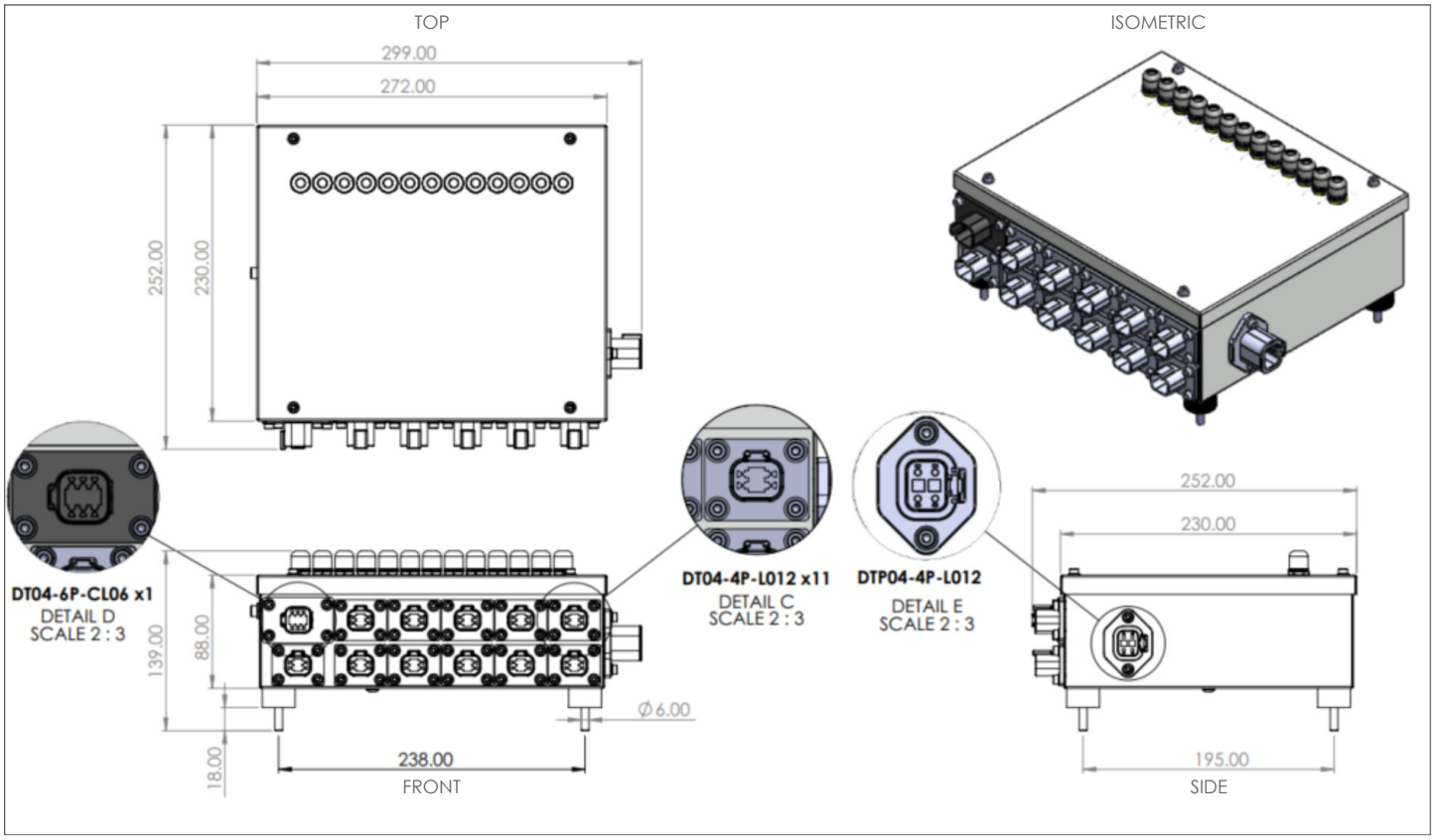
The images shown are for illustrative purposes only and may not exactly represent the item supplied. Minor variations may occur.



Power Distribution Unit (PDU): ***T9100156286-6***

PRODUCT SPECIFICATIONS

Dimensions: 299 (l) x 252 (w) x 139 (h) mm
Input Voltage: 24 V
Output Voltage: 24 V, 12 V
Protection: Each power output is protected by a dedicated circuit breaker. Simply fix the fault and press to reset.
Overall Mass: ~ 4 kg
Enclosure: Stainless Steel
Mounting: 4 x M8 threaded bolts
Connectors: Automotive-grade sealed connectors



PIN CONFIGURATION

	Name	Description	Voltage (V)	Fuse Info	Comments
Plug 1	**Ignition, Starter, Alternator Inputs and Outputs:** Highly configurable to supply power solely to peripherals by detecting the vehicle's ignition signal (IGN. IN) or to conveniently provide signals for E-Stop, EPS, and aftermarket system functions.				
1	IGN. IN	Input ignition signal from the ignition solenoid (86) to PDU	Battery	N/A	N/A
2	IGN. OUT	(OPTIONAL) Output ignition signal back to vehicle ignition solenoid (86)	Battery	Fuse-3	N/A
3	ST. IN	(OPTIONAL) Input starter signal from the starter solenoid (86) to PDU	Battery	N/A	Aids in engine start prevention for other aftermarket systems
4	ST. OUT	(OPTIONAL) Output starter signal back to starter solenoid (86)	Battery	N/A	Aids in engine start prevention for other aftermarket systems
5	ALT.IN	(OPTIONAL) Input signal from R-wire or W-terminal from alternator	N/A	N/A	For engine RPM reading
6	N/A	Unused	N/A	N/A	N/A

	Name	Description	Voltage (V)	Fuse Info	Comments
Plug 2	**E-Stop** (Optional)				
1	OUT	Existing E-Stop (ground) signal out	0	N/A	Optional E-Stop functionality to cut-off ignition
2	IN	Existing E-Stop (ground) signal In	0	N/A	Optional E-Stop functionality to cut-off ignition
3	OUT	Existing E-Stop (ground) signal out - 2	0	N/A	Optional E-Stop functionality to cut-off ignition
4	IN	Existing E-Stop (ground) signal in - 2	0	N/A	Optional E-Stop functionality to cut-off ignition
Plug 3	**Engine Protection System** (Optional)				
1	IGN. OUT	Ignition signal supply to the EPS	Battery	Fuse-1	N/A
2	IGN. R/T	Ignition signal is returned to the PDU if the system is fully operational	Battery	N/A	N/A
3	EARTH	Ground for the EPS system	0	N/A	N/A
4	ST. SIG	To provide start signal to the EPS	Battery	Fuse-2	N/A
Plug 4	**Aftermarket Tracking System** (Optional)				
1	ST. OUT	To provide start signal to the aftermarket systems	Battery	Fuse-2	N/A
2	ST. R/T	Start signal is returned to the PDU if system is fully operational	Battery	N/A	N/A
3	BATT.	Battery supply	0	Fuse-3	N/A
4	IGN.	Ignition signal supply	Battery	Fuse-12	N/A
Plug 5	**Greasing System**				
1	BATT.	Battery supply	Battery	Fuse-4	N/A
2	EARTH	Ground for the grease system	0	N/A	N/A
3	IGN.	Ignition signal supply	Battery	Fuse-13	N/A
4	N/A	N/A	N/A	N/A	N/A
Plug 6	**Fuel Management System (FMS)**				
1	BATT.	Battery supply	Battery	Fuse-3	N/A
2	EARTH	Ground for the fuel monitoring system	0	N/A	N/A
3	IGN.	Ignition signal supply	Battery	Fuse-12	N/A
4	EARTH	Ground for the fuel monitoring system	0	N/A	N/A
Plug 7	**Auxiliary Battery:** Output for Accessories				
1	BATT.	Battery supply	Battery	Fuse-5	N/A
2	EARTH	Ground for the auxiliary system	0	N/A	N/A
3	BATT.	Battery supply	Battery	Fuse-5	N/A
4	EARTH	Ground for the auxiliary system	0	N/A	N/A
Plug 8	**2-Way or FM Radio:** Max. Combined Continuous Current Output (5 A)				
1	BATT.	Power supply to radio system	12 V	Fuse-11	12 V power output to power 12 V systems
2	EARTH	Ground for radio system	0	N/A	N/A
3	BATT.	Power supply to radio system	12 V	Fuse-11	12 V power output to power 12 V systems
4	EARTH	Ground for radio system	0	N/A	N/A

	Name	Description	Voltage (V)	Fuse Info	Comments
Plug 9	**Alternator RPM & Camera System**				
1	ALT. OUT	(OPTIONAL) Output signal from R-Wire or W-Terminal from alternator	N/A	Fuse-10	Alternator RPM signal output for engine RPM measurements
2	N/A	N/A	N/A	N/A	N/A
3	IGN.	Ignition signal supply to camera system	Battery	Fuse-13	N/A
4	EARTH	Ground signal to camera system	0	N/A	N/A
Plug 10	**Staircase Boarding Lights**				
1	BATT.	Battery supply to lights system	Battery	Fuse-6	N/A
2	EARTH	Ground supply to lights system	0	N/A	N/A
3	SW OUT	Battery supply to push button for timer staircase lights	Battery	Fuse-6	A push button is fitted near the staircase to trigger the staircase lights ON for 15 sec. (Adjustable)
4	SW R/T	Return trigger signal from push button for timer staircase lights	Battery	N/A	A push button is fitted near the staircase to trigger the staircase lights ON for 15 sec. (Adjustable)
Plug 11	**Pedestrian Detection System** (PDS)				
1	BATT.	Battery supply to pedestrian detection system	Battery	Fuse-7	N/A
2	EARTH	Ground to pedestrian detection system	0	Fuse-8	N/A
3	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
Plug 12	**Auxiliary Ignition**				
1	IGN.	Auxiliary ignition supply	Battery	Fuse-9	N/A
2	EARTH	Ground to auxiliary system	0	N/A	N/A
3	IGN.	Auxiliary ignition supply	Battery	Fuse-9	N/A
4	EARTH	Ground to auxiliary system	0	N/A	N/A
Plug 13	**Main Supply**				
1	POS.	Main battery positive supply	Battery	In-Line	Power from the battery, must be installed with an in-line (30 A)
2	NEG.	Chassis negative	0	N/A	Normally connected to chassis ground. Must be installed with an in-line (30 A)
3	NEG.	Battery negative	0	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A

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