



PDU-L28A

The power distribution unit (PDU) in an electric vehicle (EV) is an electrical component that manages the power flow from the battery to various systems and components in the vehicle that require electricity. All ports are using connectors to speed up vehicle production, provide easy integration, ensure process reliability and reduce the risk of exposed live high voltage parts.

Description

The PDU receives high-voltage DC power from the batteries and distributes it to the motor controller, battery charger, heating and cooling systems as well as other subsystems in the vehicle.

Technical Data

Norms and Regulations

- ISO 6469-3:2018 compliant
- ISO 20653 IP65

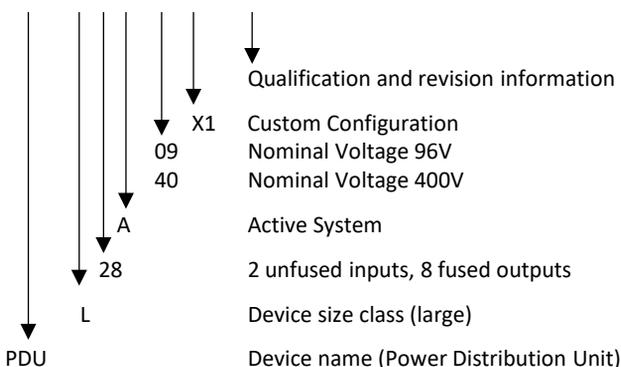
Specification Overview

- 400V system voltage (96V optional)
- 2x HV Battery input (up to 5 inputs optional)
- 8x parallel outputs, fused on HV+
- All Connections oriented on the front
- DC Charge contactors integrated
- Interlock & Isolation measurement integrated
- Safe measurement points for manual voltage measurement
- Optional precharge circuit for 96V architecture
- Operating temperature: -30 °C bis +45 °C
- Dimensions 530x310x117 (w/o mounting plate)
- Weight 12.0kg



Order Information

PDU-L28A-40X1-A01



Schematics



Pinning LV Connector X1

Pin	Name
1	KL31
2	CCS Contactors Neg, LSDO
3	Precharge (optional)
4	IMD, EN
5	IMD, CAN L
6	-
7	CCS Contactors +24V
8	CCS Contactors Pos, LSDO
9	DCDC Relay (optional)
10	IMD, HSDO Signal
11	IMD, CAN H
12	-

Connector Types

Connector	Type
X1	TE HDSCS 12Pos
X10	EMC Cable Gland
X11	EMC Cable Gland
X20	EMC Cable Gland
X21	EMC Cable Gland
X22	EMC Cable Gland
X23	EMC Cable Gland
X24	EMC Cable Gland
X25	EMC Cable Gland
X26	EMC Cable Gland
X27	EMC Cable Gland

HV Connections

Name	Description	Standard Fuse	Possible Fuse Range
X10	ESS, Input w/o Fuse, 240A continuous	w/o Fuse	w/o Fuse
X11	ESS, Input w/o Fuse, 240A continuous	w/o Fuse	w/o Fuse
X20	Inverter A, Fused Output	250A	100A .. 400A
X21	Inverter B, Fused Output	250A	100A .. 400A
X22	Inverter C, Fused Output	200A	100A .. 400A
X23	Inverter D, Fused Output	50A	5A .. 50A
X24	DCDC, Fused Output	20A	5A .. 50A
X25	OBC, Fused Output	50A	5A .. 50A
X26	HVH, Fused Output	10A	5A .. 50A
X27	DC Charge, Fused Output	500A	100A .. 500A

Technical Drawing

