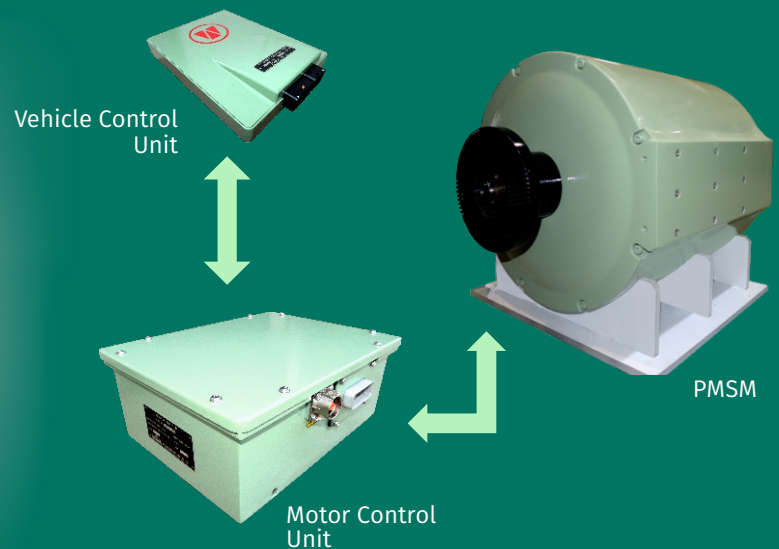


Medha Power Train

MPT 1220

Medha Power Train MPT 1626/ MPT 1220 is a totally integrated electric power train solution including battery pack for medium and heavy commercial vehicles. 15 years of electric propulsion experience on railway locomotives and trainsets, has been applied to Bus/Truck transmission by Medha to produce a rugged, reliable and low-maintenance electric power train for automotive applications. Medha power train has permanent magnet motor with sophisticated inverter control for maximum efficiency, and regenerative braking feature for maximizing range. All power train sub-systems have been designed, developed and manufactured at Medha's state of art facilities in India.



Motor

- High Torque
- Peak efficiency - 96.5%
- Liquid Cooling With Water + Glycol
- Four Quadrant Operation
- Low cogging and ripple torque for better NVH
- Permanent magnet synchronous motor (PMSM)
- Compact and light weight Aluminum housing
- IP 67 protection

Motor Control Unit

- Automotive PMSM Controller
- IGBT based 3-phase Inverter
- Sensor less PMSM Control
- Regenerative Energy recovery management
- Automotive J1939 CAN interface with VCU
- Liquid Cooling With Water + Glycol
- IP 65 protection

Vehicle Control Unit

- High precision vehicle electric propulsion control
- Regenerative braking control
- BTMS and BMS interface through J1939 CAN
- Regenerative Energy recovery management
- Configurable vehicle control and battery parameters
- Diagnostics on CAN with OBD and IoT
- IP 65 protection



100 kW EV charger with 95% efficiency. CCS2.0 and GB/T compatible. 7 inch display for HMI and wireless remote monitoring capability. Rugged, robust and reliable design with IP 54 protection.

MCU Specifications

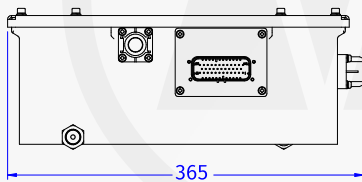
Input Voltage	550 to 750 V DC
Peak RMS current	420 A
Insulation (Electrical)	3000 V (60 s)
Operating temperature	-20 to 70 °C
Max. coolant temperature (Inlet)	65 °C
Coolant flow	20 lpm
Coolant	Glycol & Water
Weight	12 kg
Dimensions (LxWxH) in mm	300 x 365 x 140

VCU Specifications

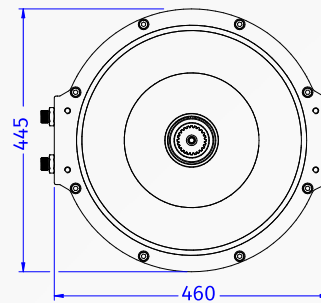
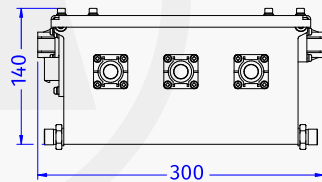
Input Voltage	24 V DC nominal (9 - 32 V DC)
Operating temperature	-40 to 85 °C
Weight	1.5 kg
Dimensions (LxWxH) in mm	260 x 195 x 52

Motor Specifications

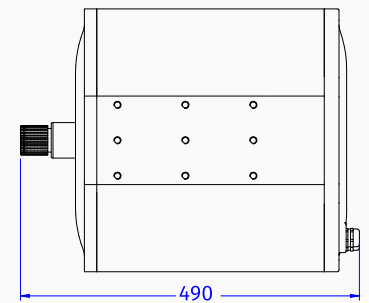
Power _{Nominal}	120 kW	Power _{Maximum}	200 kW
Torque _{Nominal}	963 Nm	Torque _{Peak}	1800 Nm
Speed _{Nominal}	1200 min ⁻¹	Speed _{Maximum}	2700 min ⁻¹
Line to Line Voltage	436 V		
Frequency	80 Hz		
Weight	220 kg		



Inverter



Motor



www.medha.com

MEDHA SERVO DRIVES PVT. LTD.



Design ▶ Manufacturing ▶ Maintenance



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