



# ON-BOARD CHARGERS



# ADVANCED ON-BOARD BATTERY CHARGERS FOR HARSH ENVIRONMENTS



MTA develops and manufactures on-board battery chargers under EDN brand for a wide range of plug-in hybrid electric vehicles or pure electric vehicles, such as for example buses, trucks and vans, boats, underground vehicles and more.

The OBCs supplied by MTA cover voltages up to 1000 V, are easy to be integrated in the vehicles, and deliver prime durability, scalable and sealed solutions. They are built to resist hard environments and can be installed in any rugged application.



E-TRUCKS



E-TRACTORS



OFF-HIGHWAY E-VEHICLES



E-BOATS



Read more about MTA on-board battery chargers on [www.mta.it/en/power-electronics](http://www.mta.it/en/power-electronics)

## BHP22 & BHP19

BHP22: 22 kW AC three-phase bidirectional operation (7.3 kW AC single phase)

BHP19: 19.2 kW AC single bidirectional operation

Parallelable in charge mode

AC charger - SAE J1772 and EN 61851 compliance

DC fast charging (CCS) communication (optional)

DIN 70121, ISO 15118

AC plug locking/unlocking management

HVDC interlock monitoring

Typical efficiency >94%

AC/DC galvanic isolation

UDS, functional safety (ASIL-A), cybersecurity compliant

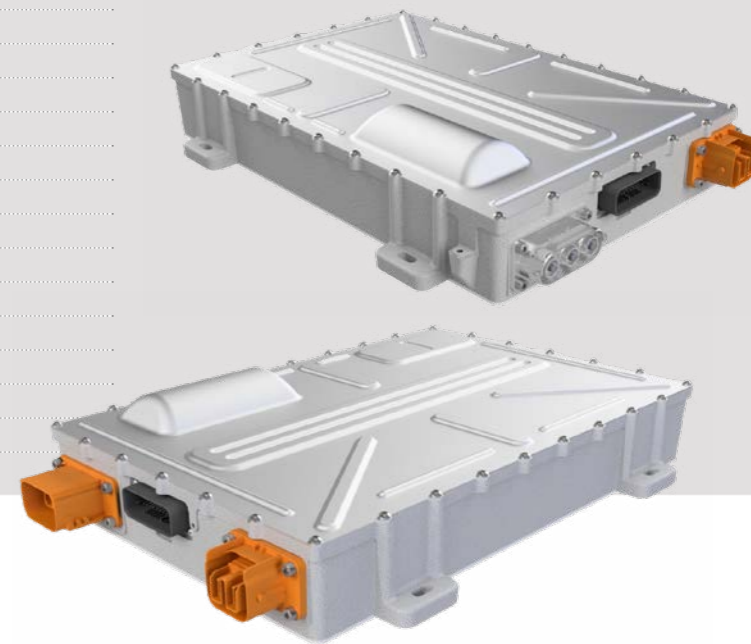
IP67, IP6K9K protection rating

HVDC outputs are short-circuit and reverse polarity protected

Fully CAN monitored and controlled (v2.0B and FD)

SAE J1939 compliant

UL1741, IEEE1547 compliant



## EV011

Air or liquid cooled

US and EU single-phase and three-phase AC input voltage range

SAE J1772 and EN 61851 compliance

HVDC interlock monitoring

Typical efficiency >90%

High AC input power factor (low reactive power)

AC/DC galvanic isolation assures a definitive safety separation between the vehicle and grid

High IP protection rating (EN60529)

Outputs are short-circuit and reverse polarity protected

Fully CAN controlled (v2.0B)

SAE J1939 available

Super-capacitors charging from zero voltage

SAE J1939 compliant



## HPC22

22 kW AC three-phase 400/480 Vac

7.3 kW AC single-phase 230/240 Vac

Parallel connections until 5 units

SAE J1772 and EN 61851 fully compliance

DC fast charging (CCS) communication (optional)

HVDC connector external interlock monitoring

Typical efficiency >94%

High AC input power factor and low THD

AC/DC galvanic isolation assures a definitive safety separation between the vehicle and grid

IP67, IP6K9K protection rating

Outputs are short-circuit and reverse polarity protected

Fully CAN controlled by MTA proprietary protocol (v2.0B)

SAE J1939 compliance

De-rated for extreme durability





[www.mta.it](http://www.mta.it)



## **ON-BOARD CHARGERS**

Version 1.1

June 2024

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