

Auxiliary Power Charger (APC) for Railway Application and Transportation



- ✓ DC/DC Auxilliary Power Supply for Battery-Charging
- ✓ DC/AC Inverters for AC Auxiliary loads
- ✓ DC/DC PowerBooster for Energy Recovery and Load Shaving
- ✓ Very compact for underfloor or roof mounted applications
- ✓ Input DC Voltages up to 1.500 V nominal.
- ✓ Power range up to 30 kW, scalable for higher power requirements

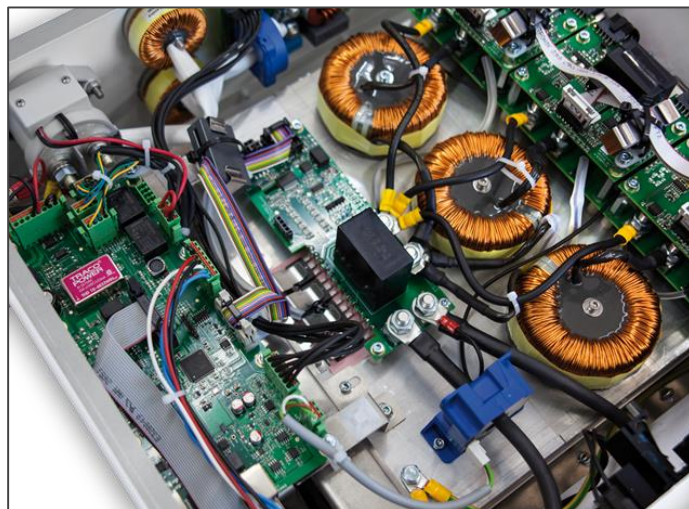
Highlights

- ✓ Input grid voltages 600 V/750 V/1.500 V DC or others
- ✓ 30 kW DC Input Power
- ✓ Very compact using high Silicon Carbide Technology with high switching frequency
- ✓ Direct operation or galvanic isolation
- ✓ All type of battery technologies
- ✓ Wide battery voltage range
- ✓ Optional: integrated battery management



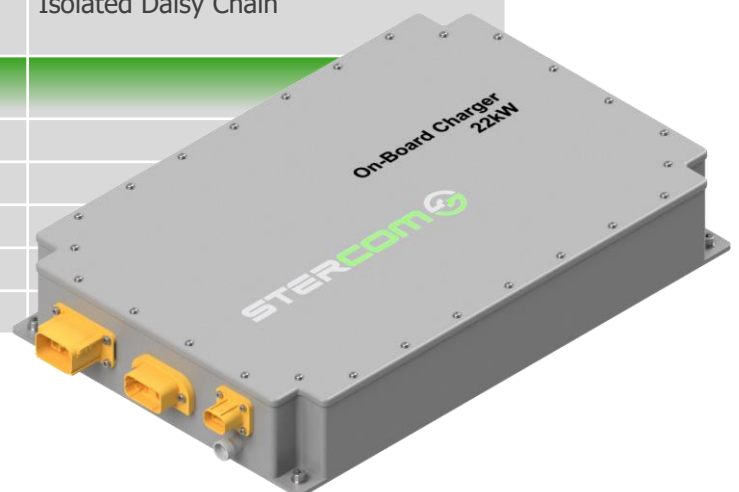
Features

- ✓ Optimized charging characteristics (cccv, ccp)
- ✓ Battery temperature compensation
- ✓ Interface to the Battery Management System for optimized battery protection and battery life
- ✓ Outstanding Mass- and Volume density due to very high switching frequency
- ✓ Enhanced safety monitoring and protection features
- ✓ Bidirectional Buck/Boost operation available
- ✓ Various Interfaces to the vehicle control (CAN, MODBUS, Ethernet TCP/IP)
- ✓ Integrated Ethernet for remote access and fleet management



Performance Data

Input		
DC Grid voltages	600 V/750 V/1.500 V	
Operational voltage range	+20 %/-30 %	
Peak Cut Off Voltage	+40 %	
Active Input Peak Filter	According IEC xxx	
Electronic Supply	From Battery or from Input voltage	(Dead Battery Start Feature)
Output		
Typical Battery Voltages	24 V/48 V/110 V	Adjustable in a wide range
Output Current (max)	100 A	
Output Power (max)	30 kW	
Efficiency	94 %	(version: galvanic Isolation)
	> 98 %	(Version:no galvanic isolation)
Charging characteristic	Cccv/cccp	Configurable via software
Environmental Condition		
Ambient Temperature Range	-25 °C .. +60 °C	
Rel. Humidity	<90 % at 40 °C	
Max. operational altitude	< 2.000 m	Above sea level
Audible noise	< 55 dBA	
Cooling	Convection, forced air cooling, fluid cooling	3 types
Industrial Protection	IP54 to IP69	
Interfaces		
External Interfaces	CAN, MODBus, Ethernet	CANOpen or other standards
Internal(Cluster)	CAN	CANOpen
Remote Access and Fleet Management	Ethernet	TCP/IP/MQTT
Stercom Battery Management	CellCOM	Isolated Daisy Chain
Applicable Standards		



Contact



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