

## Features

- IP20 Grade High Efficiency Battery Charger
- CAN Communication
- Battery Reverse Polarity Protection
- Output short circuit Protected
- Operation up-to 50°C ambient
- Thermal Shutdown at 70°C Heatsink Temperature
- Regulatory compliance (ARAI Certification pending)



Performance Specifications and Protections

Parameter	Value		Comment
	CH-2K50P2048	CH-2K50P2072	
Maximum Output Power (peak)	2500W <small>(50V,50A [+/- 1%])</small>	2500W <small>(83.5V,30A [+/- 1%])</small>	
Charging Voltage Range	40-60V	60-85V	Software programmable value
Maximum Charging Current	50A	30A	
Efficiency (@ 240Vac, 100% load)	≥93%	≥92%	
Output Over Voltage / Under Voltage Protection	60V /40V	84V /60V	Software programmable value
Steady State current accuracy	1%		Charging current is within +/-1% [or 100mA] of limit set by software / BMS
Output Voltage Ripple	2% of rated output voltage		RMS Voltage ripple measured with resistive load
Output Current Ripple	5% of Max Current		RMS Current ripple measured with resistive load
Standby AC Power consumption	2W		
Standby DC current from battery	< 1mA		
Output Overload Protection	>2500W		Software programmed value 2500W (approx.)
Maximum Input surge voltage	6000V		As per IEC61000-4-5
CAN channel Interface with BMS and / or Vehicle ECU	CAN 2.0A bd - 250Kbps – 1Mbps		Can be customized
Charger body earthing	1mΩ		Max resistance between input earth to Charger body
Isolation - Input to output	1500 V-rms		
Isolation – Input and Output to Chassis	1500 V-rms		

Input and Environment Specification		
Parameter	Value	Comment
Absolute Maximum Input Voltage range	170V-265V AC	Undervoltage lockout at 170Vac Reduced performance between 170V to 207Vac
Input Voltage range for 100% performance	207-230-265V, 47-53Hz	IS 12360 Standard
AC Power Factor	99%	Above 15% of rated power
Operating temperature	-20 to 50°C	100% performance up to 40°C; Reduced power from 40°C to 50°C
Storage temperature	-20 to 85°C	
Relative Humidity	0 to 95%	
Display Feature		
Charging LED Indication	Green	Blink when charging
Fault Indication	Red	Glow under any kind of fault
Power ON Indication	Green	Glow when powered up

Mechanical Packaging and Interconnection Requirement		
Parameter	Value	Comment
Mounting Holes	4 holes	
Mounting orientation	Table top / Wall Mount	
Input Plug-in Connector	3 Pin (IS 1293 compliant)	1 meter length cable
Output Battery Connection	SB50 connector	1 meter length cable (can be customized)
CAN Connection	Free wire	CAN High, CAN Low, CAN Gnd
Cooling	Forced Fan cooling	
Enclosure material	Aluminum	
Overall dimension	350mm x 175mm x 104mm	
Weight	5.8 Kg ± 0.3 Kg	