

DATASHEET EACHARGER 100KW

Parameter	Value	
General parameters		
Ordering code	See Passport	
Series	S (Special)	
Execution	Floor mount	
Application	Indoor/Outdoor	
Charging system	DC Mode 4	
Charge speed	Level 3	
EMC (IEC 61000-6-3)	Class B	
Number of Channels	2 (Left Side A, Right Side B)	
Station Rated Power, kW	100kW	
Channel Power (at one Side), kW	Side A: 100kW (250A@100...400V), Side B: 50kW (125A at 100...400V),	
Noise level	< 60 dBA	
Environment conditions		
Humidity, %	5 ... 95 RH Non-condensing	
Operating altitude	Max. 2000m	
Operating temperature, °C	-35 ... +50 °C	
Functions By Default		
Design unification	[Basic Charger + OPTIONS 1-16] - with one unified case	By Default
Basic Charger	50kW (2 channel x 25kW), without OPTIONS 1-16	
Adding OPTIONS 3-16	At any time, even at the customer's site	
Display	Display 32" with CAP touchscreen under glass (ENG menu)	
Energy metering	Dual channel Smart DC Meter + shunts class 0.2 for Billing	
Modem	3G/4G/LTE Modem	
Charge protocol	CAN or PLC 30MHz	
Internal communication protocol	RS-485 ModBus RTU, CAN Open	
External communication protocol	RS-485 ModBus RTU, OCPP 1.6J by LTE/Ethernet	
Remote software update	By wireless LTE or wire Ethernet channel of the Modem	
WEB-Interface	By wireless Wi-Fi or wire Ethernet channel of the Modem	
DLM Function	Power limiting by external request via OCPP	
Service socket	Schuko AC 230V/16A inside the housing	
Cable 5m/250A with Plug CCS2	Left Side A	
Manual Cable Management System	Hook in the form of a semicircular bracket	
Self Consumption	Up to 300W without Auto-heater, depends on Display Brightness 1500...3000nit and Station Rated Power	
Display Brightness	Autoadjustment 1500...3000nit by Built-in Lighting Sensor	
CCS Plug Holders with actuators	Automatic locking of the Plug in the Holder	
LED Lighting	Around the Plug Holders + Visor on the Roof	
Functions as OPTIONS		
Additional CHAdEMO cable 5m/125A	YES (Independent channel +50kW at Right Side B)	OPTION 1
Additional AC Plug Type2	NO	OPTION 2
Adjustable Auto Heater	YES	OPTION 3
Backup Supply with Built-in Charger	YES	OPTION 4
Basic Spare parts Kit	NO	OPTION 5

Automatic Cable Management System	YES	OPTION 6
Basic Installation Kit with Tools	NO	OPTION 7
Special Housing Color	YES	OPTION 8
Advertising on Display	YES (HTML address with media files)	OPTION 9
Additional AC Meter at Input	NO (Total kWh sum at whole Station)	OPTION 10
RFID/NFC with 10 RFID Keys	YES	OPTION 11
100 RFID Keys	NO	OPTION 12
RGB 3-Color Status	YES	OPTION 13
Basic Power +50 kW	NO	OPTION 14
Basic Power +100 kW	NO	OPTION 15
Basic Power +150 kW	YES	OPTION 16
Special functions	Specify in details (Menu language, etc)	YES
Output CCS1 instead of CCS2	Asian, Japanese and American markets	NO
Nonstandard Cable length	Specify in details	NO
Limit Bollards	Specify in details	NO
Extended Spare parts Kit	Specify in details	NO
RCCB Type B instead of Type A	Type B 30mA with RS-485 control – see OPTION 2	NO
Emergency STOP button	Red mushroom design button with twist release mechanism. Stops all channels without additional conditions.	YES
Payment terminal POS	The POS device is provided by the Client	NO
300 kW Charging Station + 5m Cables CCS2 350A (500A peak)	Specify in details (Channels qty, Power distribution, etc)	NO
Special Energy DC Meter	Specify in details	NO
Special Power distribution	Specify in details	NO
Main Protections		
Overcurrent/Overload Protection	MCB with status signal contacts, manual recovery after shutdown	
Earth/Ground/Leakage fault Protection	IMD $\geq 10\text{mA}$ (at each DC output channel)	
Overvoltage protection	SPD Class II (EN 61643-11) with status signal contacts	
Overheat protection	PT1000 sensors, according CCS standard	
Welding Protection	Aux signal contact monitoring (as part of power contactor)–see OPTION 2	
Poewer Module Protections		
Input Overvoltage Protection	Built-in to the Power Module, autorecovery after shutdown	
Input Undervoltage Protection	Built-in to the Power Module, autorecovery after shutdown	
Output Overvoltage Protection	Built-in to the Power Module, manual recovery after shutdown	
Output Short circuit Protection	Built-in to the Power Module, manual recovery after shutdown	
Output Wrong Polarity Protection	Built-in to the Power Module, disabled output voltage before start	
Over Heating Protection	Built-in to the Power Module, autorecovery after shutdown	
Housing		
Vandal-proof	Yes	
IP Protection degree	IP54	
IK Protection degree	IK10 (Impact energy 20 Joule)	
Access to internal section	With tools	
Material	Steel, polymer coating	
Basic Housing Color	Special Housing Color	
Fixation	Standalone with prepared basement	
Dimensions, LxHxD, mm	950 x 2209 x 643 mm	
Weight, kg	Approximately 420kg The actual weight depends on OPTIONs (see Passport)	

Input parameters						
Voltage, V	3 x 400/230VAC \pm 10%, 3P-5W					
Frequency, Hz	50/60 \pm 5%					
Current, I at Station Rated Power	160A@100kW					
Harmonic filter	<5% THD					
Efficiency	Min. 95% (Load \geq 50%)					
Power factor	Min. 0.98 (Load \geq 50%)					
MTBF	>1'000'000 hours					
Power Consumption	The actual Power Consumption depends on OPTIONS (see Passport)					
Input terminal cross-section range	35-240 mm ²					
Minimal Input cable cross-section at Station Rated Power	Cu (50 mm ²), Al (90 mm ²)					
Charging diagram (at 1 Power Module)						
<p>The left graph shows the output voltage regulation. The output voltage is constant at 1000V AC up to approximately 30A, then decreases to about 300V AC at 100A. The right graph shows the output power efficiency. The output power is constant at 100% from -40°C to 60°C, then drops to about 25% at 80°C.</p>						
Output parameters						
Connector type / Cable Length L, m	Left Side A	CCS2	L=	5 m		
	Right Side B	CHAdeMO	L=	5 m		
Channel Power, kW	Left Side A	Up to 100kW				
	Right Side B	Up to 50kW				
Left Side A	Voltage range, V	0...1000				
	Current range, A	0...250A@100kW				
	Max current, A	250A				
Right Side B	Voltage range, V	0...500				
	Current range, A	0...125A@50kW				
	Max current, A	125A				
Power distribution between outputs	Left Side A	0	-	50kW	-	100kW
	Right Side B	50kW	-	50kW	-	0
Standards						
IEC 61851-1, IEC 61851-22, IEC61851-23, IEC 61851-24, EN 61643-11, IEC 62196-2, IEC 62196-3, CCS Combo, EN62052-11, EN62053-21, EN62053-23, EN61010-1, ISO 15118, DIN SPEC 70121, EN 50160, CE declaration, Directives 2014/30/EU, 2014/35/EU, 2014/53/EU						
Documentation						
Operation and Maintenance Manual; Passport with Warranty certificate						