

# ENNEC1K025G

20kW 1000V charger power module



The module has been specially designed for DC electric vehicle chargers. It is characterized by its high efficiency, high power factor, high power density, and exceptional reliability. It features a 3-phase 4-wire AC input and offers a DC output voltage range from 150 to 1000VDC with an output power of 20kW. It is compliant with safety standards such as CE EN61851-1, EN61851-23 requirements, and EMC standard EN61851-21-2.

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## Product information

- Galvanic insulation
- Full Hot Plug construction
- High efficiency in the full load range, efficiency of the full load higher than 95%
- Wide range of output voltage, 150-1000VDC, appropriate for wide range of electric vehicles
- Direct current for higher output power at low output voltage
- Internal, intelligent discharge circuit – automatically discharges the residual charge, simplifying construction of the systems
- Low power consumption in the standby mode, lower than 10 W
- 3 phases without neutral wire eliminate the risk of high neutral currents
- 3-phase correction of the active power factor technology, reduces harmonic disturbances in the network
- Double DSP construction provides full digital control, less components means higher reliability
- Wide range of input voltage, 260 ~ 530VAC, makes it possible to work in the worst network conditions
- Wide operating temperature range, -40 °C ~ + 75 °C

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## Safety

- Compliance with CE

## Technical specification

	Parameter	Unit	Value V
<b>Input side</b>	Frequency range	Hz	45 - 65
	Input voltage range	W	3L+PE, 260-530 (AC)
	Power factor	-	0.99
	Maximum input current	A	38
	ITHD	%	≤ 5
	Efficiency (top)	%	≥95, @1000VDC/50% -100% load current, Max point ≥95.5%
<b>Output side</b>	Output power	kW	20 @voltage>800V DC
	Voltage range	VDC	150-1000
	Current range	A	0-25
	Actual sharing	A	< ± 0.5
	Voltage accuracy	%	< ± 0,5
	Current accuracy	%	≤ ± 1 (output power in 20% ~ 100%)
<b>Environmental/ mechanical parameters</b>	Temperature of the surrounding	°C	-40 ~ +75, decreases from 55
	Storage temperature	°C	- 40 ~ +75
	Humidity	%	≤ 95, RH, no condensation
	Cooling		Fan cooling
	Height	m	2000
	Weight	kg	≤ 11
	Dimensions height x width x length	mm	84 x 226 x 395

	Technical data	Specification
<b>Control</b>	Communication	CAN Bus, Maximum 48 modules powered in parallel
	Signal lamp	Green LED diode: normal work, yellow LED diode: alarm, red alarm diode: malfunction
	Indication of the address	Automatic identification of the address, panel selection switch to set
<b>Alarm and security</b>	Input/output voltage protection	Beyond the voltage range, product shuts down automatically and launches, when voltage returns to normal.
	Overcurrent/short-circuit protection	Automatically shuts down and locks, in order to restart and unlock switching off the device is required
	Overheating protection	Automatic shutdown, automatic restart after the temperature returns to normal
<b>EMC/EMI</b>	Certificate TUV CE	EN61851-21-2, class B
<b>Safety</b>	Safety	Compliance with CE
<b>Reliability</b>	MTBF	>500,00h

\*the manufacturer reserves the right to make changes to the parameters and appearance of the product