



30 kW SiC-based AC-DC Converter



30 kW SiC-based AC-DC Converter

Category	Name	Parameter
AC input	Input system	Three phases + PE
	Voltage range	260 Vac - 530 Vac
	Rated voltage	415 Vac ± 15%
	Maximum current	58A
	Grid frequency	45 Hz~ 65 Hz
	Rated frequency	50Hz/60Hz
	Standby power consumption	< 12W@380Vac,< 14W@480Vac
		with normal standby mode
DC Output	Voltage range	150 Vdc - 1000Vdc (settable)
	Current range	0 ~ 100A (current limiting
		point is settable)
	Rated Power	30kW
	Steady voltage precision	< ±0.5 %
	Steady current precision	≤±1% (rated range of 20%
		~ 100% for output load)
	Load regulation	≤ ±0.5%
	Line regulation	≤ ±0.1% (testing range
		is 320V ~ 530V)
	Start-up overshoot	≤±3%
	Peak-to-peak value noise	≤ 1% (200~1000V, 0~20MHz)
	Power Factor	≥ 0.99 Full-load output power,
		input nominal voltage and
		frequency of @100%
	THD	≤ 5% Full-load output power of
		@50%~100%
Efficiency	At nominal input &rated output	≥ 95.2% at Vout = 1000V-30A
	At nominal input voltage and load	≥ 95.0% at Vout = 350 to 500Vdc
	from 50%~100%	≥ 95.0 at Vout = 680 to 1000 Vdc.



_ 30 kW SiC-based AC-DC Converter

Category	Name	Parameter
Communicatio	Communication with Controller/PLC	CAN Bus Interface.
n	Emission	Class B, acc to IEC 61000-6-3
	Immunity	According to IEC 61000-6-1
EMC	IEC Standard	IEC61851-1
	Marking	CE
Certification	Operation temperature	-40°C ~ +75°C, derating is needed
		when the temperature is above
		55°C.
	Storage temperature	-40°C ~ +70°C
	Relative humidity	≤ 95%RH, without condensation
Environmental conditions	Cooling mode	Forced air cooling
COTTATEIOTIS	Altitude	2,000 m a.s.l., derating is needed
		when the altitude is above 2,000 m
		a.s.l.
	Atmospheric pressure	79 kPa ~ 106 kPa
	Instant impulse current upon startup	< 60A
	Current sharing	In case of load of $10\%\sim100\%$, the
		module current sharing error ≤
Other		rated output current of ±5%
	Noise	≤60dB (1m away, ambient
		temperature is 25°C, under rated input
		voltage & output is 1000V-30A
	Startup duration (select the startup	Normal start-up mode: the time
	mode through the monitoring	delay from AC power-on to module
	module)	output is ≤ 8s.



_ 30 kW SiC-based AC-DC Converter

Category	Name	Parameter
Other	Earthing resistance	0.1Ω , bearable current
		≥ 25A
	Hot Plug	Yes
	Insulation resistance	The insulation resistance of DC part
		and AC part to housing and the AC
		part to the DC part shall be.≥ 10M
		$\Omega.$
	ROHS	R6
Mechanical parameters	Size	110Mm (H) ×385mm (W)
		×395mm (D)
	Weight	≤22.5kg

