

Technical Information

PrimeSTACK™

6PS18012E4FG35689



Preliminary data

Controller interface

Driver and interface board	ref. to separate Application Note		DR240			
			min.	typ.	max.	
Auxiliary voltage		V_{aux}	18	24	30	V
Auxiliary power requirement	$V_{aux} = 24\text{ V}$	P_{aux}			120	W
Digital input level	resistor to GND 10 kΩ, capacitor to GND 1 nF	$V_{in\ low}$	0		4	V
		$V_{in\ high}$	11		15	V
Digital output level	open collector, logic low = no fault, max. 15 mA	$V_{out\ low}$	0		1.5	V
		$V_{out\ high}$		15		V
Analog current sensor output inverter section	load max 1 mA, @ 729 A _{RMS}	$V_{IU\ ana2}$ $V_{IV\ ana2}$ $V_{IW\ ana2}$	2.9	3	3.1	V
Analog DC link voltage sensor output	load max 1 mA, @ 850 V	$V_{DC\ ana}$	8.3	8.5	8.7	V
Analog temperature sensor output inverter section (NTC)	load max 1 mA, @ T _{NTC} = 81 °C	$V_{Theta\ NTC2}$		10		V
Over temperature shutdown inverter section	load max 1 mA, @ T _{NTC} = 86 °C	$V_{Error\ OT2}$		10.9		V

System data

			min.	typ.	max.	
EMC robustness	according to IEC-61800-3 at named interfaces	power	V_{Burst}	2		kV
		control	V_{Burst}	1		kV
		aux (24V)	V_{surge}	1		kV
Storage temperature		T_{stor}	-40		80	°C
Operational ambient temperature	PCB, DC link capacitor, bus bar, excluding cooling medium	$T_{op\ amb}$	-25		55	°C
Cooling air velocity	PCB, DC link capacitor, bus bar, standard atmosphere	V_{air}	2			m/s
Humidity	no condensation	Rel. F	5		85	%
Protection degree			IP00			
Pollution degree			2			
Dimensions	width x depth x height		658	438	302	mm
Weight				50		kg

Heatsink air cooled

			min.	typ.	max.	
Air flow	T _{air} = 20 °C, P _{air} = 1013 hPa, dry and dust free, measured at the side of the heat sink according to DIN 41882	$\Delta V/\Delta t$	1500			m³/h
Air pressure drop	at min. air flow	Δp		200		Pa
Air inlet temperature		T_{inlet}	-40		55	°C

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Overview of optional components

	Unit 1	Inverter Section	Unit 3
Parallel interface board			
Optical interface board			
Voltage sensor		x	
Current sensor		x	
Temperature sensor		x	
DC link capacitors		x	
Data cable for control signals		x	
Fan			
Collector-emitter Active Clamping		x	

Notes

Setting of Active Clamping TVS-Diodes: $V_z = 824 \text{ V}$

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