

Preliminary data

Key data

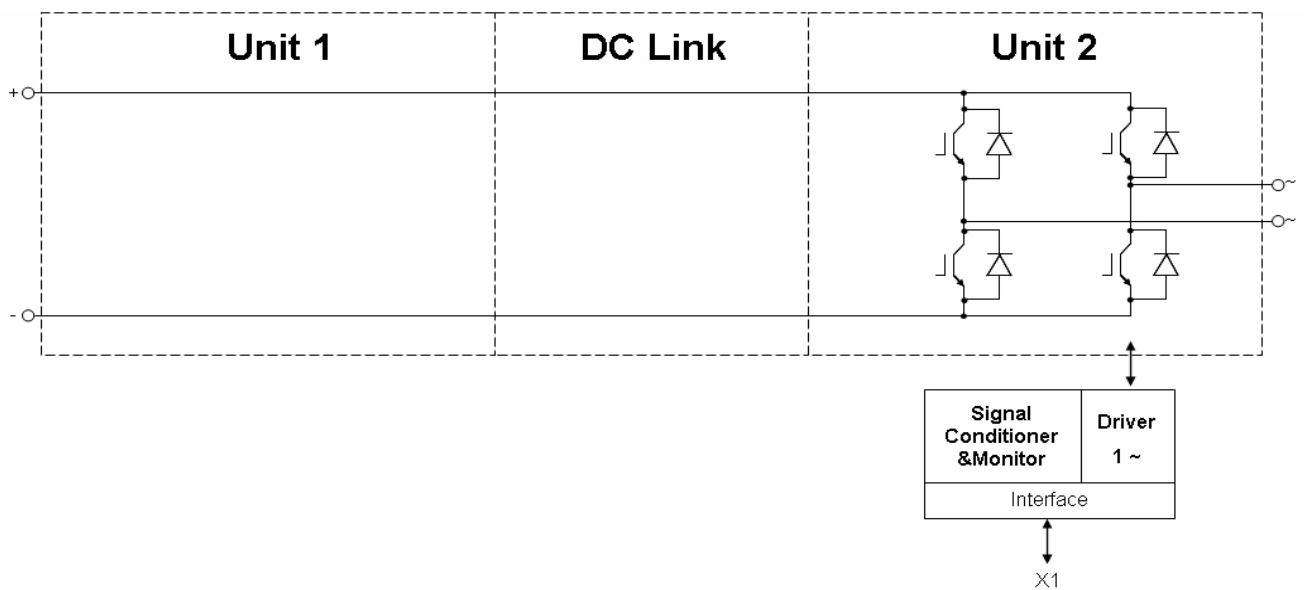
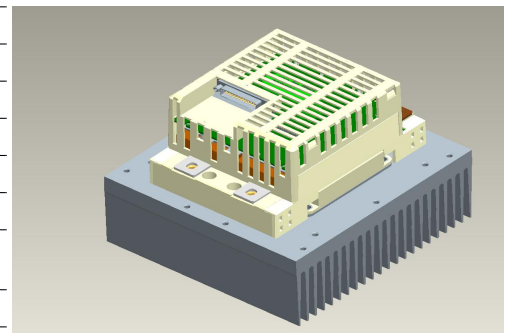
1x 325A AC at 690V AC, forced air (fan not implemented)

General information

Stacks for various inverter application. Semiconductors, heat sinks, drivers and sensors included. These are only technical data!

Please read carefully the complete documentation and maintain the proper design environment! Especially note the EMC environment and the controller's functionality.

Topology	1/2 B2I	
Application / Modulation	Inverter / Sine	
Load type	resistive, inductive	
Cooling	forced air (fan not implemented)	
Market	common industrial, drives, power supply	
Implemented sensors	current, temperature	
Semicond. (Unit 1)	none	
DC Link	none	
Semicond. (Unit 2)	IGBT	2x FF300R17KE3
Driver signals IGBT	electrical CMOS	
Standards	EN50178, UL94, prepared for UL508C	
Internal ID	28213	
Mechanical drawing number	38000028	
Electrical drawing number	2PS-C2-V	



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Technical Information

PrimeSTACK™

2PS06017E32G28213



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Notes

Overvoltage shutdown:
It must be realized by the customer.
Overvoltage and Overcurrent shutdown reaction time:
This parameter refers to the customers controller.

Electrical data

DC Link

			min	typ	max	units
Voltage		V_{DC}		1100	1200	V

Unit 2 AC

			min	typ	max	units
Voltage		V_{Unit2}		690		V_{RMS}
Continuous current	$V_{Unit2} = 690V_{RMS}$, $V_{DC} = 1100V$, $T_{inlet} = 40^{\circ}C$, $T_J \leq 125^{\circ}C$, $f_{Unit2} = 50Hz$, $f_{sw2} = 2000Hz$, $\cos(\phi) = 0,85$	I_{Unit2}			325	A_{RMS}
Continuous current overload cap.	$T_{inlet} = 40^{\circ}C$, for overload capability 150% for 60s			231		A_{RMS}
Short time current	$T_{inlet} = 40^{\circ}C$, 10s, every 180s, initial load = $283A_{RMS}$	I_{Unit2}			354	A_{RMS}
DC current	no rotating field, $T_{inlet} = 40^{\circ}C$	$I_{Unit2,DC}$			162,0	A_{av}
Overcurrent shutdown	within 15 μ s			930		A_{peak}
Switching frequency		f_{sw2}			20000	Hz
Power losses	$V_{Unit2} = 690V$, $V_{DC} = 1100V$, $T_{inlet} = 40^{\circ}C$, $T_J \leq 125^{\circ}C$, $f_{Unit2} = 50Hz$, $f_{sw2} = 2000Hz$, $\cos(\phi) = 0,85$, $I_{Unit2} = 325A_{RMS}$	P_{loss2}		3770		W
Power factor		$\cos(\phi)_{Unit2}$	-1,00		1,00	

General data

			min	typ	max	units
Power losses (PCB)		$P_{loss,aux}$			40	W
EMC test	according to IEC61800-3 at named interfaces	power		V_{Burst}	2	kV
		control		V_{Burst}	1	kV
		aux (24V)		V_{Surge}	1	kV
Insulation management is designed for		V_{Line}		690		V_{RMS}
Insulation test voltage	according to EN50178, $f = 50Hz$, $t = 60s$	V_{isol}		2,5		kV_{RMS}

Controller interface data

			min	typ	max	units
Auxiliary voltage		V_{aux}	18	24	30	V_{av}
Auxiliary power requirement	$V_{aux} = 24V_{av}$	P_{aux}		40		W
Driver and interface board	see separate technical information			DR240		
Driver core				EiceDRIVER 2ED300C17-S		
Digital input level	resistor to GND 10,0k Ω , capacitor to GND 1nF, high = on, min 15mA	V_{in}	0,0		15,0	V
Digital output level	open collector, low = ok, max 15mA	V_{out}	0,0		30,0	V
Analog current outputs Unit 2	load max 1mA; at 325A	$V_{ana,out}$	3,43	3,50	3,60	V
Analog temperature output	load max 1mA; at $T_{NTC} = 77^{\circ}C$ correspond to $T_J = 125^{\circ}C$	$V_{T,out}$	8,90	9,10	9,30	V
Overcurrent shutdown reaction time	after overcurrent message by PrimeSTACK™ interface				10	μ s

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