

PS SERIES PSMCSPID28IA115-X DC/AC SINGLE PHASE INVERTER



The PSMCSPID28IA115-X is a baseplate-mount, conduction-cooled, DC/AC inverter designed for rugged airborne applications that convert electrical power in aircraft from nominal 28 volts power to single-phase alternating current power 115VAC or 230VAC at 50/60/400 Hz. The product is design to meet MIL-STD requirements (specified herein).

Standard Models List (for other voltages – consult factory)

Part number	Input	Output		
	Voltage	Voltage	Frequency	Power
PSMCSPID28IA115-0	28VDC per MIL-STD-704F	115 VAC	60Hz	1kVA

- Additional standard configurations available. **Contact factory for more details.**
- All of our products can be configured to comply with EU REACH regulations. **Contact factory for more details.**

Markets & Applications



Military (Airborne, Mobile, Ground-Fix), Ruggedized



Telecom, Industrial

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SPECIFICATIONS:

DC Input	<i>Voltage Range</i>	Steady State: 22VDC - 29VDC per MIL-STD-704F Transient: 50VDC/50mS per MIL-STD-704F
	<i>Isolation</i>	200V Input to Chassis
	<i>Inrush Current</i>	<TBD Amps for TBD Sec.
	<i>Input Protection</i>	-Under Voltage -Over Voltage -Over current (fusible weak link)
DC Output	<i>Rating</i>	≥ 1kVA
	<i>Output Voltage and Frequency</i>	Per customer's request (115V/230V; 50/60/400).
	<i>Isolation</i>	500V Output to Input and Chassis
	<i>Efficiency</i>	≥ 80% (full load, nominal input at room temperature)
	<i>Output Protection</i>	Over Voltage, Under Voltage, Overload, Shorted output
	<i>Over Temp. Protection</i>	100°C±5°C@ baseplate (TBD)
	<i>Current sharing capability</i>	Multiple identical units of PSMCSPID28IA115-X can be connected in parallel. (Up to TBD Units)

Specifications (Cont.):

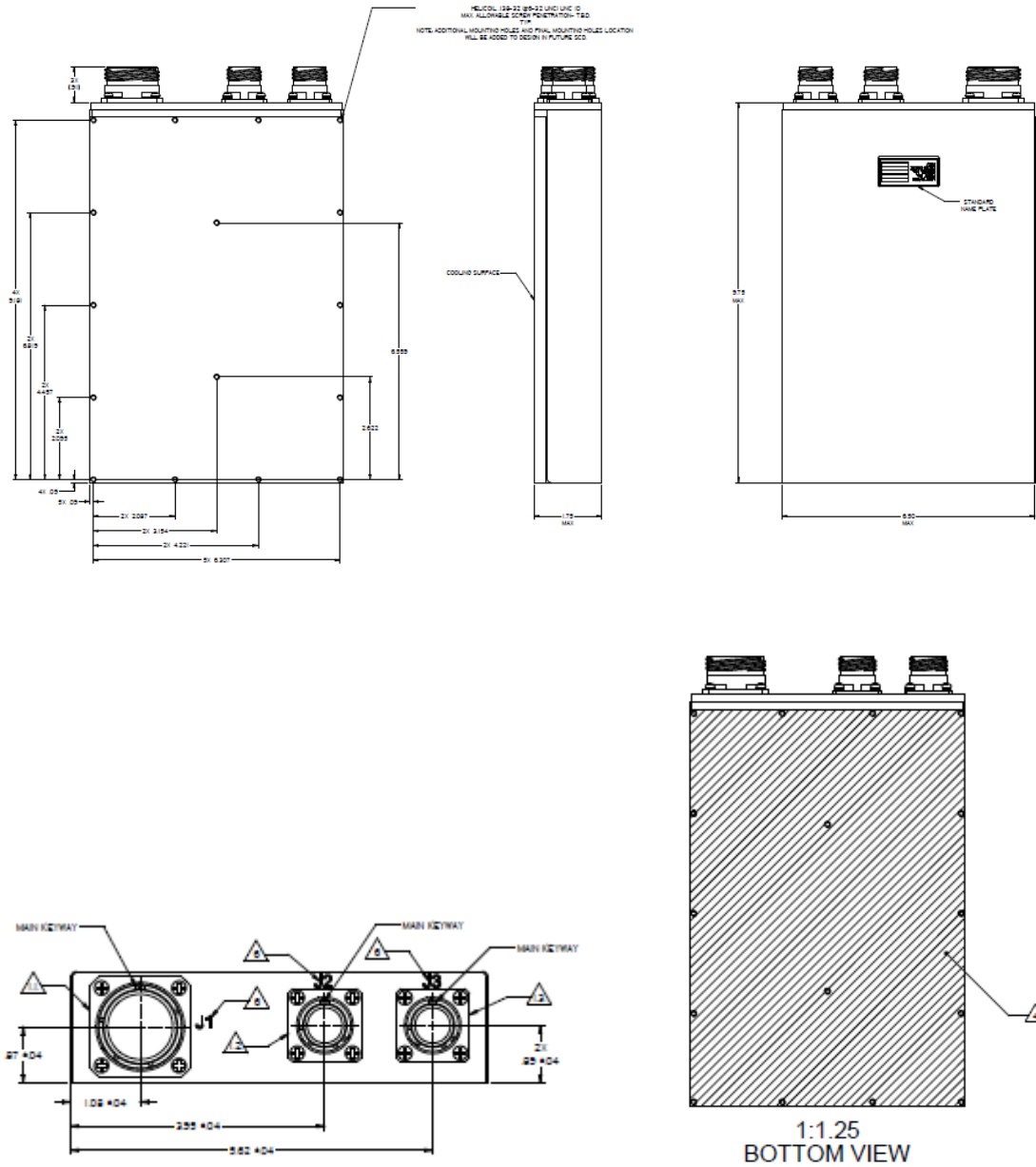
Environment Designed to meet MIL-STD-810G	<i>Temperature</i>	Operating: -55°C – 85°C (Base plate cooled) Storage: -55°C – 125°C
	<i>Humidity</i>	MIL-STD-810G, Method 507.5 up 95% RH
	<i>Salt-fog</i>	MIL-STD-810G, Method 508.6
	<i>Altitude</i>	MIL-STD-810G, Method 500.5 Procedure I, up to 40,000ft
	<i>Mechanical Shock</i>	MIL-STD-810G, Method 516.6 saw-tooth, 20g peak, 11mS
	<i>Vibration</i>	MIL-STD-810G, Method 514.6 Category 24 (IAW Figure 514.6E-1) General minimum integrity exposure (1 hour per axis).
	<i>Fungus</i>	Does not support fungus growth, in accordance with the guidelines of MIL-STD-454, Requirement 4
EMI	<i>Designed to meet MIL-STD-461F</i>	CE102, CS101, CS114, CS115, CS116, RE102, RS103
Reliability	>100,000 hours, calculated per MIL-STD-217F2 at +85°C base plate, Ground fixed	
Cooling Requirements	The PSMCSPID28IA115-X is a self-cooled unit. It draws ambient air at its front (the I/O connectors' side) and exhaust it at the rear.	
Enable	The unit includes an Optocoupler isolated Enable signal	
Output OK	The unit includes an Optocoupler isolated OUTPUT OK signal	
Max. Size (LxWxH)	Baseplate cooled unit: 9.75x6.5x1.75	
Weight	TBD	
I/O Connectors	Input connector - D38999/20WG41PN or eq (Mates with: D38999/26WG41SN or eq.) Output connector - D38999/20WC98SN or eq (Mates with: D38999/26WD19PN or eq.) Current Sharing - D38999/20WC35SN or eq (Mates with: D38999/26WD19PN or eq.)	

* Compliance achieved with 5µH LISN, shielded harness and static resistive load.

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OUTLINE DRAWING

For detailed dimensions and tolerances see Drawing: PSMCSPID28IA115-X



Please note: Specifications are subject to change without prior notice by the manufacturer.

