

# 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

# PS SERIES: PSMCSPID28IA115-X

## SPECIFICATIONS:

<b>DC Input</b>	<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)
<b>DC Output</b>	<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.):

<b>Environment Designed to meet MIL-STD-810G</b>	<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
<b>EMI</b>	<i>Designed to meet MIL-STD-461F</i>	CE102, CS101, CS114, CS115, CS116, RE102, RS103
<b>Reliability</b>	>100,000 hours, calculated per MIL-STD-217F2 at +85°C base plate, Ground fixed	
<b>Cooling Requirements</b>	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.	
<b>Enable</b>	The unit includes an Optocoupler isolated Enable signal	
<b>Output OK</b>	The unit includes an Optocoupler isolated OUTPUT OK signal	
<b>Max. Size (LxWxH)</b>	Baseplate cooled unit: 9.75x6.5x1.75	
<b>Weight</b>	TBD	
<b>I/O Connectors</b>	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.

