

DC-DC MIL-COTS

PRODUCT # SW2511005-24

12-36 VDC

24 VDC

Input Voltage

Output Voltage

500 W

1

Output Power

of Outputs



PRODUCT DESCRIPTION

This DC-DC power supply is designed to perform and protect in harsh, military environments. It is environmentally sealed to meet IP67 when mated with connectors and cable assemblies. It is compact in size, weighing approximately 4.5 lb, and is base plate or natural convection cooled. It is designed to meet the input power requirements of MIL-STD-1275E. This power supply was built for performance and tested for reliability. Custom output voltages are available.

ENVIRONMENT

Designed to meet MIL-STD-810



TEMPERATURE

-40°C to +71°C operating, -40°C to +85°C non-operating



HUMIDITY

Up to 100% condensing with sealed mating connectors and cable assemblies attached



VIBRATION

Designed to meet NAVMAT P-9492



SHOCK

Designed to meet MIL-STD-202, Method 213, Test Condition J



EMI

Designed to meet MIL-STD-461G, CE102

FEATURES

- Single output of 24 V up to 500 W
- 12–36 VDC input
- Designed to meet MIL-STD-1275E
- Efficiency up to 96%
- Output current maximum of 20 A
- Ripple ≤ 240 mVp-p
- Regulation 5%, line and load
- Non-isolated
- See derating details on page 3





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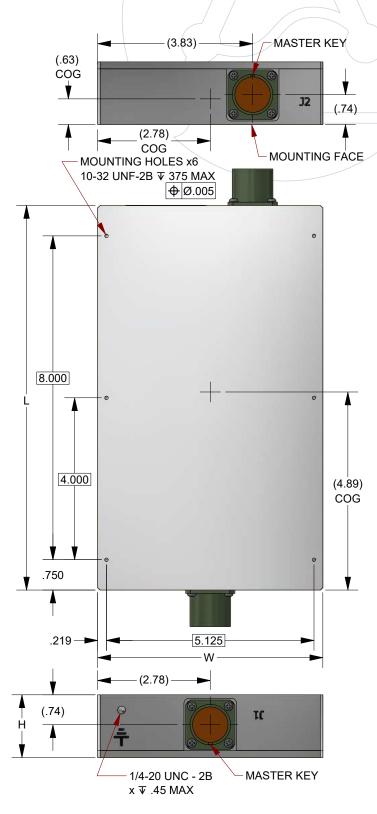
MECHANICAL INFORMATION

- 9.55" (L) x 5.60" (W) x 1.625" (H) Max
- Approx. 4.5 lb
- Clear Iridite, Chemically filmed in accordance with MIL-DTL-5541, Type 2, Class 1A
- Environmentally sealed to meet IP67 when mated with connectors and cable assemblies
- Alternative connector finishes may be available—contact us to learn more

CONNECTORS

J1 Input: D38999/20WD18PN					
PIN	DESCRIPTION				
А	OPEN				
В	- V _{IN}				
С	- V _{IN}				
D	- V _{IN}				
Е	OPEN				
F	OPEN				
G	OPEN				
Н	+ V _{IN}				
J	+ V _{IN}				
K	+ V _{IN}				
L	OPEN				
М	+ V _{IN}				
N	- V _{IN}				
Р	- V _{IN}				
R	- V _{IN}				
S	+ V _{IN}				
Т	+ V _{IN}				
U	OPEN				
Suggested Mate: D38999/26WD18SN					

J2 Output: D38999/20WD5SN					
PIN	DESCRIPTION				
А	+ V _{OUT}				
В	+ V _{OUT}				
С	- V _{OUT}				
D	- V _{OUT}				
Е	OPEN				
Suggested Mate: D38999/26WD5PN					





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VOLTAGE & OUTPUT POWER DERATING

Conduction (base plate) cooled: 480 W output power can be achieved for 1 second with 12 VDC input voltage and 30 seconds with 16 VDC input voltage

CONDUCTION (BASE PLATE) COOLED						
V _{IN} (VDC)	V _{OUT} (VDC)	MAX OUTPUT POWER (W)				
12 to 15	24	300				
16 to 19	24	390				
20 to 36	24	480				

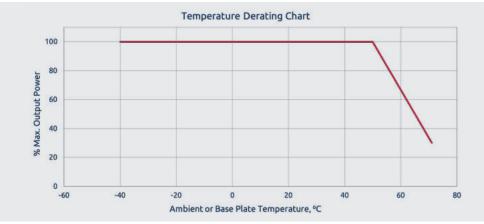
Convection cooled: 500 W output power can be achieved for 1 second with 12 VDC input voltage and 30 seconds with 16 VDC input voltage

CONVECTION COOLED						
V _{IN} (VDC)	V _{OUT} (VDC) MAX OUTPUT POWER (
12 to 15	24	260				
16 to-19	24	350				
20 to 24	24	400				
25 to 28	24	450				
29 to 36	24	500				

DERATING

NOTES

 Output performance is derated linearly from 0% at 50°C to 30% at 71°C



COOLING

Natural convection cooled or base plate cooled. See "Derating Chart" above for additional information.





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ISOLATION & PROTECTIONS

ISOLATION

- Non-isolated input/output
- Isolated input/chassis and output/chassis

PROTECTION

Reverse polarity, overtemperature, short circuit, and overvoltage with auto recovery



MAKE IT A MOTS

The right power solution helps keep equipment functioning properly in the field. MOTS, or Modified Off-The-Shelf, power supplies are adapted, ruggedized, and designed to meet the unique demands of your application.

The fast, budget-friendly answer for meeting your environmental requirements—ask us about making this power supply a MOTS.

SW2511005 SERIES SELECTOR GUIDE

ACT Product #	V _{IN} (VDC)	# of Outputs	V _{OUT} (VDC)	Output Power (W)	Heatsink
SW2511005-12	12 to 36	1	12	240	N
SW2511005-15	12 to 36	1	15	300	N
SW2511005-16	12 to 36	1	16	320	N
SW2511005-18	12 to 36	1	18	360	N
SW2511005-22	12 to 36	1	22	440	N
SW2511005-24	12 to 36	1	24	500	N
SW2511005-26	12 to 36	1	26	500	N
SW2511005-28	12 to 36	1	28	500	N
SW2511005-32	12 to 36	1	32	500	N

