



## TPS 600 RUGGED POWER SUPPLY



*TPS 600 Rugged Power Supply*  
P/N 0018000-001

### DESCRIPTION

CME designs and manufactures a myriad of COTS and modified COTS Rugged Power Supplies. These AC-DC Power Supplies and DC-DC Power Converters are specifically designed to withstand extreme conditions in altitude, temperature, shock and vibration in rugged defense, and industrial applications. For 20 years, CME's power products have been used worldwide in a broad range of air, land, and sea systems and meet the most demanding requirements of our customers.

Leveraging the best in commercially available technology and components, CME's TPS 600 Watt Rugged Power Supply is a single, environmentally sealed, AC-DC converter for harsh applications. The TPS 600 Rugged Power Supply provides up to 600 watts to power 28 VDC electrical devices from a universal AC input, 90 to 264 VAC source at 50, 60, or 400 Hz single phase.

This portable, bench-top power supply meets rigorous environments. The reliable TPS 600 (CME P/N 0018000-001) is in production and delivers superior performance, ease of use, and user benefits.

### KEY FEATURES & BENEFITS

- Universal AC input / Full range, 90 to 264 VAC, Frequency range of 47 to 63 Hz , 400 Hz ( $\pm 40$  Hz)
- Factory adjustable power output (24 to 32V)
- Sealed, IP67 weatherproof/waterproof, rugged cast housing and cover
- Provides complete protection from dust, oil, water, and other non-corrosive material
- Enclosure protects enclosed components
- Fanless design with integrated heat sink for convective heat transfer
- Best performance high-density modules
- MIL-DTL-5015 series connectors: MS3102E14S-1P for Input; MS3102E16-9S for Output
- High reliability performance
- Additional cable accessories can be ordered

### APPLICATIONS

TPS 600 is ideal for providing quiet, reliable power in industrial benchtop applications or military and homeland security operation centers, command posts, headquarters, and encampments, for radios, and other military electronics or sensors.

- Bench-top power supply for 28V electrical loads
- Military radio-telephone operators
- Homeland security communication systems
- Signal/Communication units
- Other C4ISR applications.

*We Love to Design and Build!*

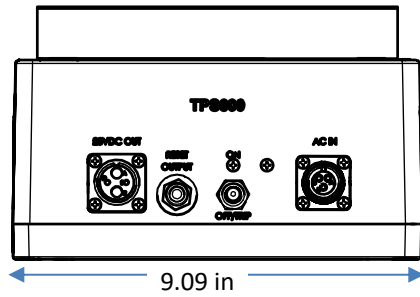
# TPS 600 RUGGED POWER SUPPLY

## SPECIFICATIONS

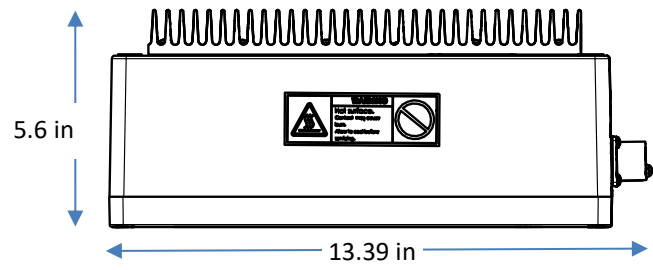
		TPS 600 Rugged Power Supply
INPUT	Voltage Range	90 to 264 VAC Universal
	Frequency Range	47 to 63 Hz , 400 ± 40 Hz (Reduced PFC above 63Hz)
	Power Factor	Meets EN61000-3-2
	AC Current	7.4/3.5A @ 115/230 VAC
	In-rush Current (115 / 230 VAC)	20A/40A peak @ 115/230 VAC, cold start @ 25°C (Typical)
	Leakage Current	<1.5 mA max at 230 VAC/50 Hz
	Input Current Protection	Circuit Breaker 15A
	Input Connector	MS3102E14S-1P
OUTPUT	Output Voltage	28 VDC
	Output Current	0 – 22A
	Output Power	616W
	Output Load Regulation	100mV
	Output Line Regulation	60mV
	Output Ripple & Noise (20 MHz BW)	2%
	Efficiency (110/220 VAC)	83 / 86 percent
	Minimum Load	No min load required
	Recovery Time	25 milliseconds when the load is switched form no load to full load and vice versa
	Remote Sense	Remote Sense on output, compensation 500mV
	Stability	Output drift <+/-0.5% over a period of 24 hours
	Hold Up Time (230VAC)	25ms
	Output Connector	MS3102E16-9S
PROTECTION	Overload	105 – 140%
		30A to 35A trip and hiccup mode with auto recovery
	Over Voltage	125-145% nominal output
		Protection type : Converter shut down output voltage, re-power on to recover
	Over Temperature	Shuts down between 90 – 105°C (Auto recovery)
Protection type : Shut down output voltage, recovers automatically after temperature goes down		
Cooling	Convection cooled	
ENVIRON- MENT	Temperature	Operating: -40 to +55°C ambient; Storage: -50 to +100°C
	Humidity	IP66/IP67
	Vibration	MIL-STD-810E, Method 514.4, Proc 1, Category 1, 9
	Shock	MIL-STD-810E, Method 516.5, Proc. I, IV, VI
SAFETY & EMC	Safety Standards	UL60950-1, CSA 22.2 No 60950-1, EN60950-1 (Ed 2), CE Mark
	Withstand Voltage	Input – Output:3KVAC Input -FG: 2KVAC Output -FG: 0.5KVAC
	Isolation Resistance	Input – Output, Input -FG, Output -FG:100M Ohms / 500 VDC / 25°C / 70% RH
	EMC Emission	EN55022/EN55011 Class B, MIL STD 461/462D CE102
	EMC Immunity	Compliance to EN61000-3, -4, -5, Level 3
OTHER	MTBF	>500,000 hours demonstrated at full load and 25°C ambient conditions
	Dimension	13.4 in x 9.1 in x 5.6 in (L x W x H)
	Weight	17 lb
	Materials/Finish	Enclosure: Die-cast Aluminum
	Mounting	Bench, Wall, Enclosure

# TPS 600W RUGGED POWER SUPPLY

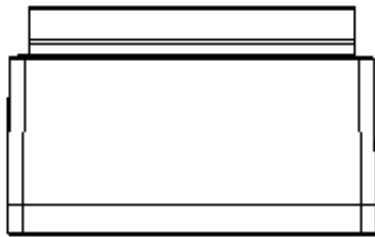
## ENVELOPE DRAWING



*Front View*



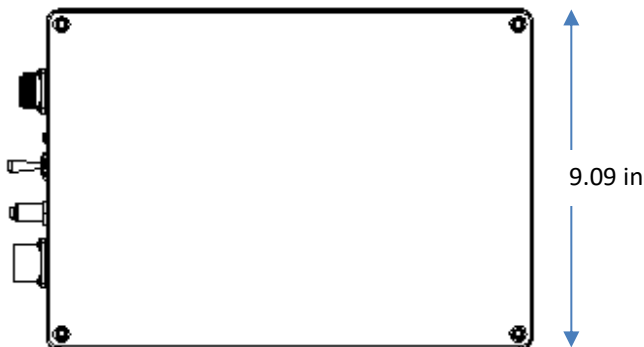
*Side Left View*



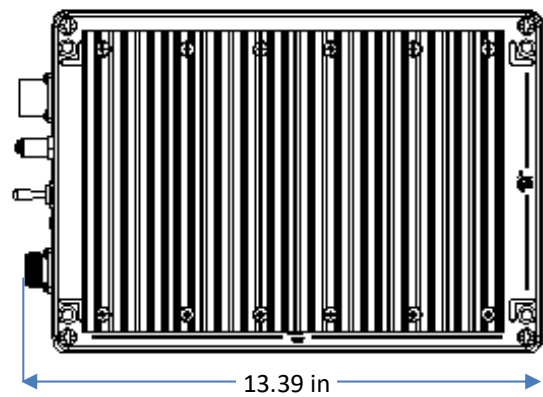
*Rear View*



*Side Right View*



*Bottom View*



*Top View*