

Converter Regulator Unit for Aviation



This series of lightweight power converters has been designed for an Airborne Early Warning and Control (AEW&C) system and fulfills all relevant requirements for military aircraft applications. Supplied by the three phase, 400 Hz on-board power, these solid state Power Supplies deliver stabilized and adjustable DC output voltages. The Converter Regulator Units (CRUs) meet all environmental requirements of common military standards for airborne equipment and are fully qualified in accordance with customers specification based on MIL-STDs.

For higher power ratings up to seven identical models can operate in parallel connection. An alphanumeric display allows 4-digit indication of output voltage and current and via RS 422 interface the units can be controlled remotely. Additionally the front panel contains five LED's indicating input, output, overload,

over temperature and general fault status. For cooling purposes three temperature-dependent speed controlled fans are integrated.

We are able to offer complete Integrated Logistic Support (ILS) packages for these products, based on our ILS department's extensive expertise.

For Military Aircraft

Standard Features

- Completely qualified
- Short-circuit protected
- Remotely controllable
- Low weight and size
- Plug-in construction
- High reliability

Support Service

- Complete integrated
- Logistic support (ILS)





Electrical characteristics	Model 2046	Model 2047	Model 2048
Input voltage	115/200 VAC, 50 to 400 Hz, 3-phase		
Input transients & noise	As per MIL-STD-704E		
Inrush current	Less than nominal current		
Power factor	0.8 at rated output power		
Output voltage (adjustable)	30-45 VDC	27-35 VDC	10-18 VDC
Rated output current	200 A	125 A	125 A
Output peak current	110% by current limitation for 5 minutes		
Static tolerance	± 0.5%		
Line/load regulation	± 0.5%		
Output ripple	250 mVpp max.	200 mVpp max.	100 mVpp max.
Over voltage protection	125% of nominal output voltage		
Efficiency	> 85% at rated output power		
Cooling	Integrated fans		
Current sharing	Up to 7 units		
EMI/EMC	As per MIL-STD 461E (RS103, RE102, CE102)		
Audible noise	< 65 dB (A) at rated load		
On/off control	On/off switch		
Remote control	Remote control signals for master alarm, overload, fan failure, over temperature and remote on/off via RS 422		
Output voltage display	Alphanumerical display, 4 digit		
Output current display	Alphanumerical display, 4 digit		
Physical characteristics			
Dimensions (Width x height x depth mm)	300 x 280 x 200	300 x 200 x 180	200 x 200 x 150
Weight	18 kg	12 kg	8 kg
Input connector	Airborne circular connector MS type		
Signal connector	Airborne circular connector MS type		
Output connectors	M10 (10 mm) bolts with 2 nos. each for (+) and (-) terminal		
Front panel indication (LED's)	Input ok, output ok, overload, over temperature, fault		
Environmental characteristics			
Operating temperature	-40°C to +60°C		
Storage temperature	-50°C to +70°C		
Sinusoidal vibration	Acceleration: 0.5g, frequency sweep: 5 Hz to 500 Hz		
Random vibration	Acceleration: 0.05g ² /Hz, frequency sweep: 10 Hz to 1 kHz		
Shock	6 g, 11 ms, half sine pulse		
Altitude	12,000 meters		
Damp heat (humidity)	40°C, > 95% rel. humidity		

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