



300W DC to DC Constant Power Environmentally Sealed Power Module (ESPM) Technical Specification

DC INPUT

Voltage: 60-120VDC
Peak Inrush Current: < 60 A
Efficiency: > 70%
Hold-Up Time: 10mS min.
Input Overcurrent: (internal) 20 A Fuse

DC OUTPUT

Voltage: 260V to 390V, Nominal 265V without remote control voltage
Power: 300W
Ripple & Noise: 1% V P-P Measured with 20Mhz Bandwidth
Line Regulation: Less than ±0.25%
Load Regulation: ±2.0% from no load to full load (droop load share)
Parallel use: May be paralleled with other like units for increased system output, redundant diode included
Current Sharing: Slope program current share, (droop)
Droop: 0.93V/A +/- 0.1%
Temperature Coefficient: < ±0.02% per°C
Acoustic Noise: None

PROTECTION

Output Over-Voltage: Shutdown at 396V Output Voltage, Recycle of input voltage required to reset OVP circuit.
Output Over current/Short Circuit Protection: Electronic with automatic recovery
Output Over power protection: 300W
Over-Temperature: Over temperature shutdown with auto recovery
Input Over-Current: AC fused internally. For failure modes only.

ELECTRONIC ALARMS

AC OK: low when AC input is in range
Output OK: low if the output voltage is within 240VDC and 395VDC (low=<.6V@1mA) (high=open collector (I<50µA))

ELECTRONIC CONTROL INPUTS

Remote Inhibit: Application of a 3.3V input signal will cause the supply to shut down and an output OK fault alarm will be issued. (3.3V = Inhibit)
Remote Program: With 0 to 10VDC control signal, Output voltage changes linear governed by the formula $V_{OUT}(V_{PROG}) = mV_{PROG} + 207.3$; where $m=22 \pm 1\%$. Remote program must be referenced to Output power return.
Signal RTN: Isolated signal return for all signals except Remote Program.

ENVIRONMENTAL SPECIFICATIONS

Normal Operation: -30 to +70°C Oil Temperature
High Temperature Operation: derate 10% per °C, 70 to 80°C
Low Temperature Turn On: -40°C Minimum for warm up
Storage / Transportation: -40°C to +75°C
Humidity Operating & Storage: 0% to 100% RH condensing
Vibration, Operating: 14g-rms, random, tri-axial vibration for one hour
Vibration, Transportation: Packaged units will withstand, without damage, two complete cycles from 5Hz to 100Hz to 5Hz: 0.5 g at 0.1 octaves/min. From 100Hz to 500Hz to 100Hz: 1.6 at 0.25 octaves/min.
Shock, Transport: Packaged, drops, 6 faces, 8 corners
Salt Fog: MIL-STD 810C, Method 509.1
Cooling: Oil immersed module

PHYSICAL DIMENSIONS

Dimensions: H19.56 x W21.84 x D41 cm (7.70 x 8.6 x 16")

Weight: 14.74 kg (32.5 lbs)

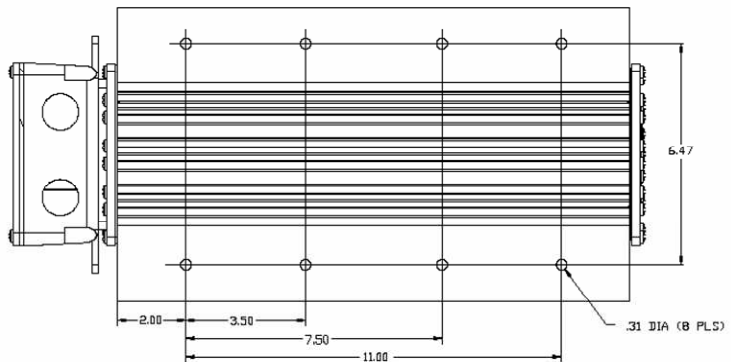
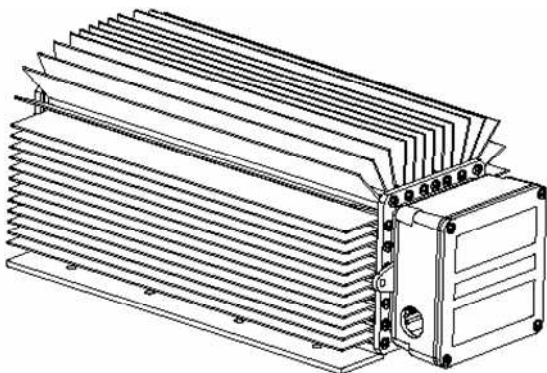
AGENCY COMPLIANCE

RoHS: with lead exemption compliant

SAFETY and REGULATORY AGENCY SPECIFICATIONS

Input Leakage Current to Safety Ground: Less than 3.5mA at 275VAC
Input to Ground Isolation Voltage: 1500VAC
Input to Output Isolation Voltage: 3000VAC
Output to Ground Isolation Voltage: 500VAC
Fast Transient/Burst: EN61000-4-4, Class 3 (2kV)
Surge: EN61000-4-5, Class 4 (2kV L-L, 4kV L-EARTH)

Input and Output: wires 6ft long, solid wires UL rated to 600V
AC Input: White: Line 1, **Black:** Line 2, **Green:** Ground
DC Output: Black: 360V_RTN, **Red:** 360V
Signals: Violet: Enable, **Orange:** FLT_RTN, **Yellow:** RMT ADJ (0-10V)
Blue: OUT OK (Open Collector), **Brown:** ACOK (Open Collector)



ORDERING INFORMATION

Part no.	Description
144688-P3H-000	300W, 360V, ESPM, Droop CS

www.tdipower.com

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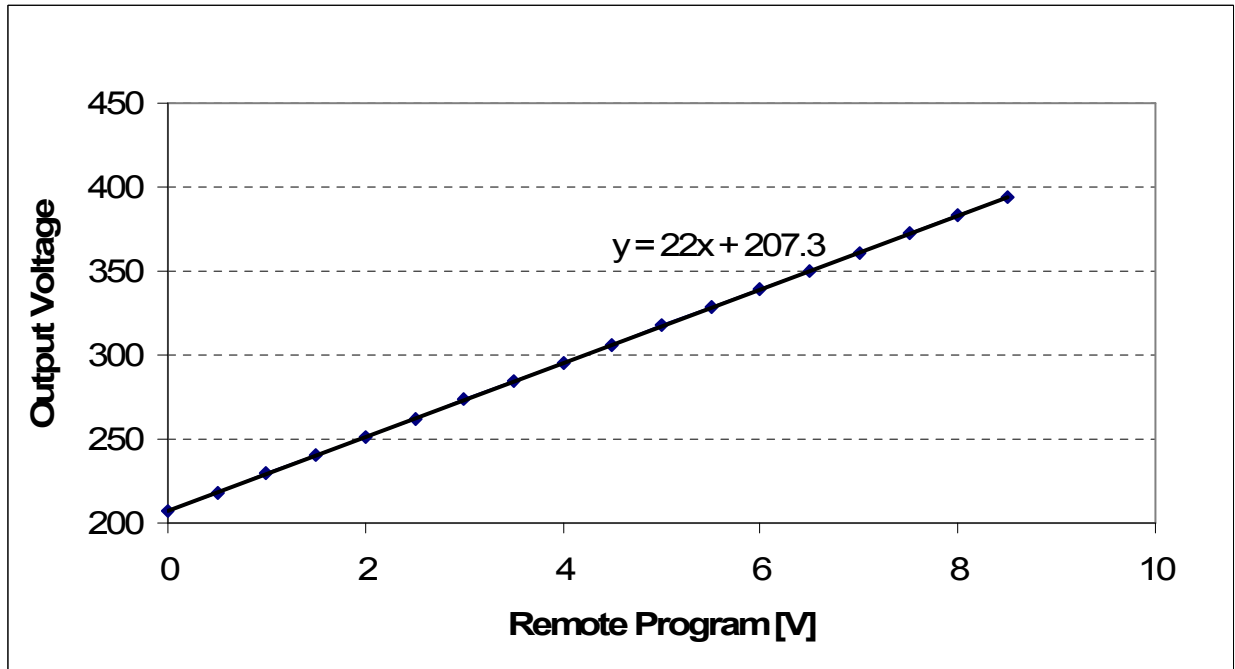


Figure 1 Remote Program Vs Output Voltage

Contact Factory for Options and full Product Specification

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