

## FEATURES

- **Environmentally Sealed for Harsh Environments**
- **Convection Cooled**
- **90% Efficiency**
- **Parallelable for Scalable Applications**

### AC INPUT

**Voltage:** 185-275VAC, 47-63Hz

**Input Current:** 18A rms maximum @ 176VAC

**Peak Inrush Current:** <45A

### DC OUTPUT

**Voltage:** 54VDC (adjustable)

**Power:** 2,700W maximum

**Efficiency:** 89%, 50 to 100% load

**Line Regulation:** Less than  $\pm 0.25\%$

**Load Regulation:** 0.50 volt Droop Current Sharing for N+1 Parallel, Redundant operation

**Parallel use:** May be paralleled with other like units for increased system output, redundant diode included

**Current Sharing:** Slope program current share, (droop)

**Droop:** 200mv. 0 to 100A

**Dynamic Response:** <5% for a 50% to 100% step load. Return to regulation in <500usec

**Ripple & Noise:** 1% V P-P Measured with 20Mhz Bandwidth

**Temperature Coefficient:** <  $\pm 0.02\%$  per°C

**Hold-Up Time:** 8mS min.

**Turn On Delay:** <2 seconds

**Turn On Overshoot:** <1% nominal output voltage

### ENVIRONMENTAL SPECIFICATIONS

**Normal Operation:** -20 to +50°C Ambient temperature

**High Temperature Operation:** de-rate 10% per °C, 50 to 75°C

**Low Temperature Turn On:** -40°C Minimum for warm up

**Storage / Transportation:** -40°C to +85°C

**Humidity Operating & Storage:** 0% to 100% RH condensing

**Vibration, Operating:** 14g-rms, random, tri-axial vibration for 1 hour

**Vibration, Transportation:** Packaged units 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

**Audible Noise:** None

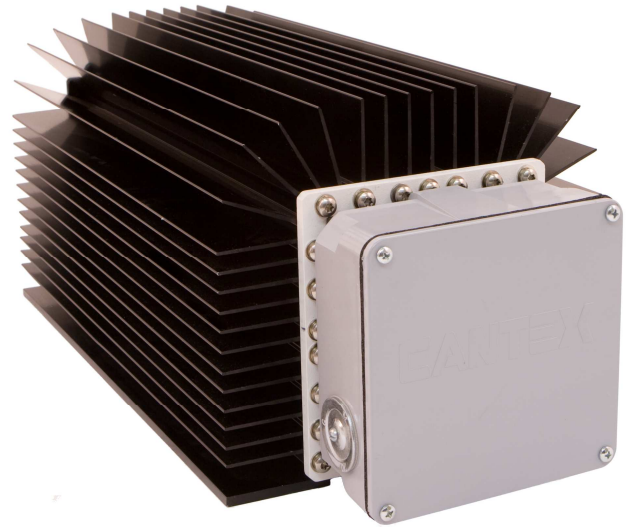
**Cooling:** Oil cooled. No fan required. Needs ventilation to maintain ambient temperature under load.

### 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)

**Input/Output:** Terminal Blocks in permanently attached junction box.



### PROTECTION

**Output Over-Voltage:** Shutdown at 120% Nominal Output Voltage, Recycle of input voltage required to reset OVP circuit.

**Output Over current/Short Circuit Protection:** Electronic with automatic recovery

**Over-Temperature:** Over temperature shutdown with auto recovery

**Input Reverse Polarity:** AC fused internally

### EXTERNAL CONTROL

**Power Plant Controller:** Compatible with TDI system controllers.

**AC Fail:** AC OK, TTL compatible alarm

**Output Good:** Output Good, TTL compatible alarm

Output voltage may be programmed by 0-5V input

### SAFETY AND REGULATORY AGENCY SPECIFICATIONS

**Input Leakage Current to Safety Ground:** <3.5mA @ 275VAC

**Input to Ground Isolation Voltage:** 1500VAC

**Input to Output Isolation Voltage:** 3000VAC

**Output to Ground Isolation Voltage:** 500VAC

**RoHS:** Compliant (Lead Solder Exemption Directive, RoHS 5))

### ELECTRO-MAGNETIC COMPATIBILITY

**Conducted and Radiated Emissions:** FCC Part 15, Subpart j, Class A; and EN55022, Class A

**Harmonics:** EN61000-3-2

**Static Discharge:** EN61000-4-2, Class 3, stand-alone

**RF Field Susceptibility:** EN61000-4-3, Class 3

**Fast Transient/Burst:** EN61000-4-4, Class 3 (2kV)

**Surge:** EN61000-4-5, Class 4 (2kV L-L, 4kV L-EARTH)

(Units tested to 8kV surge L-L and L-EARTH)

**OPTIONS:** Solar Shield

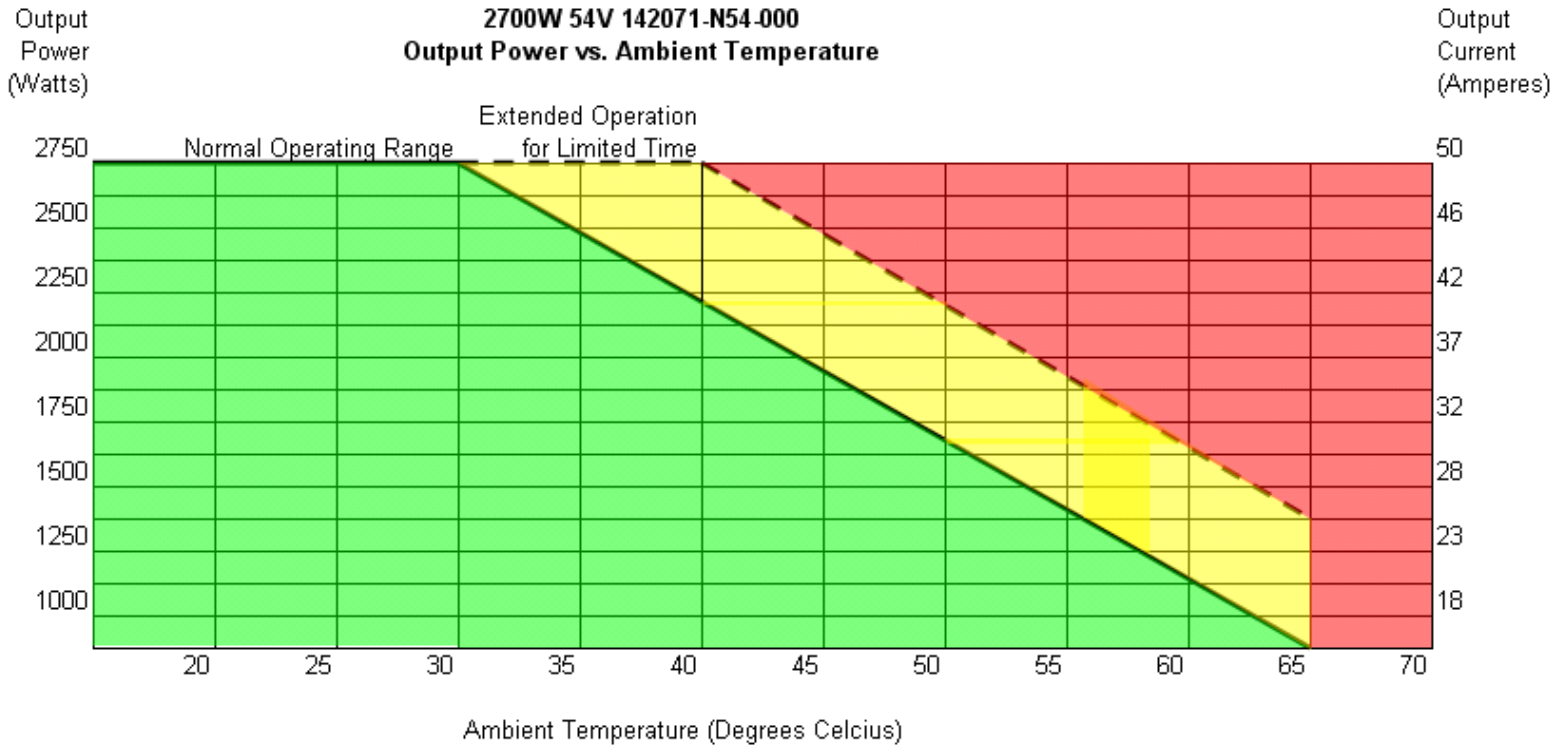
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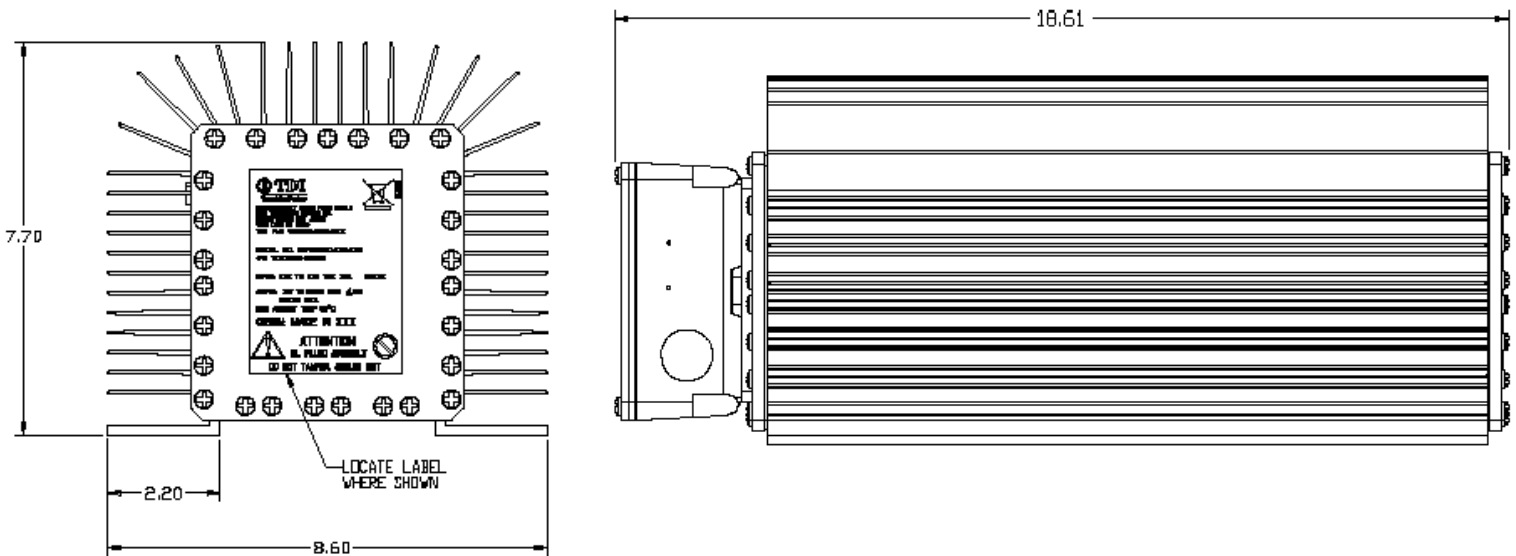
**DEMANDING APPLICATIONS DEMAND TDI POWER**

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**OUTPUT POWER vs. TEMPERATURE**



**MECHANICAL INFORMATION**



**ORDERING INFORMATION**

Part no.	Description
142071-N54-000	2700W, AC-DC ESPM, 54 Volt

**www.tdipower.com**

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