



REV: 08162011

ITE / EMBEDDED POWER SUPPLY

## PRODUCT FEATURES:

- 1RU Height, 19" 6KW Power Shelf
- Universal AC Input (derated @  $\leq 170\text{VAC}$ )
- 54VDC Output, 111A (3 x 37A Rectifier Modules)
- 10 GMT-Fused Outputs, Front-Access
- Easy installation; rear-access wiring for AC, GMTs
- Rectifier Control Module for monitoring, alarms
- Remote Access via Ethernet (TCP/IP)
- SNMP Interface
- RS-232 Serial Interface
- Meets FCC & EN Conducted EMI, Class B
- International Safety Approvals



## INPUT SPECIFICATIONS:

VOLTAGE	Universal AC Input (85~264VAC)-see derating
FREQUENCY	47~63 Hz
INRUSH	$\leq 30\text{A}@230\text{VAC}$ (max, Cold Start) per module
CURRENT	$\leq 10\text{A}@230\text{VAC}$ (max, continuous) per module
PROTECTION	External AC Input (Breakers/Fuses) required
LEAKAGE	$< 3.5\text{mA}@264\text{VAC}$
HOLD-UP	$> 16\text{ms}$ minimum (230VAC, Full Load)
EFFICIENCY	$> 92\%$ @ 230VAC (Full Load, typical)
HARMONICS	EN61000-3-2 Class D Compliant ( $> 0.97$ PF)

## OUTPUT SPECIFICATIONS:

OUTPUT VOLTAGE	54VDC (typical, outputs floating)
OUTPUT CURRENT	111A (max. continuous)
ADJUSTMENT RANGE	46VDC TO 58VDC (outputs floating)
MINIMUM LOAD	0A
LINE REGULATION	$\pm 0.5\%$ max, across full input range
LOAD REGULATION	$\pm 0.5\%$ max, across full load range
RIPPLE	120mVp-p (typical); 250mV max (20MHz BW)
SETPPOINT ACCURACY	$\pm 1\%$
EXCURSION	$\pm 3\%$ max (20~100% Step Load)
RECOVERY	50ms max
OVER-CURRENT	105~130% (Auto-Recovery)
OV PROTECTION	59VDC $\pm 0.5\text{V}$ (Recycle input to reset)

## STATUS & CONTROL SPECIFICATIONS:

AC INPUT GOOD	Alarm via Communication Interface
DC OUTPUT GOOD	Alarm via Communication Interface
COMMUNICATION	Ethernet (TCP/IP port on front panel)
COMMUNICATION	SNMP (TCP/IP port on front panel)
COMMUNICATION	RS-232 (Debug port on rear panel)
REUNDANCY	N+1 capable: 3 rectifiers for $\leq 74\text{A}$ systems, or 2 rectifiers for $\leq 37\text{A}$ systems
RECTIFIER MODULE	See DRM-440 Datasheet for details

## GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE	$-40^{\circ}\text{C}$ to $+70^{\circ}\text{C}$ (derate 3.3% above $55^{\circ}\text{C}$ )
STORAGE TEMPERATURE	$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
OPERATING HUMIDITY	10% ~ 90% (non-condensing)
STORAGE HUMIDITY	5% ~ 95% (non-condensing)
COOLING	Intelligent Fans (each Rectifier)
VIBRATION	10-55Hz, 2G, 3Min Period, 60 min each (3 axes)
SHOCK	20G Peak Acceleration
RELIABILITY	$> 320,000$ Hours ( $25^{\circ}\text{C}$ , per MIL STD 217F)
SIZE (INCHES)	1.72" (H) x 19.0" (W) x 16.93" (D)

## SAFETY STANDARDS:

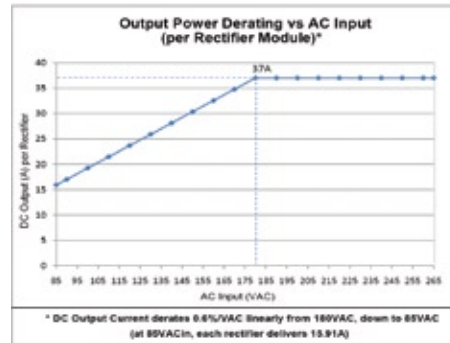
UL / cUL	60950-1
CE MARK	Low Voltage Directive



## EMISSIONS:

EMISSIONS	EN55022 Level B (Conducted)
ELECTROSTATIC DISCHARGE	EN61000-4-2, 4KV Contact/ 8KV Air
RADIATED SUSCEPTIBILITY	EN61000-4-3, 26MHz-2000MHz, 10V/m, 80%AM
EFT/BURSTS	EN61000-4-4, 2KV
SURGES	EN61000-4-5, 2KV Earth, 1KV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 150KHz-80MHz, 10Vrms, 80%AM
VOLTAGE DIPS	EN61000-4-10, 95% Dip, 10ms / 30% Dip, 500ms
VOLTAGE INTERRUPTIONS	EN61000-4-11, 95% reduction, 5ms
FLUCTUATIONS & FLICKER	EN61000-3-3

## OUTPUT POWER DERATING vs AC INPUT:



## OUTLINE DRAWING:

For additional information, refer to the DIRS-4110 Operation Manual

