

REV: 030215

PRODUCT FEATURES:

- 1RU Height, 2000W Rectifier Module
- High Efficiency (96% at 30%~70% Load)
- Universal AC Input
- Active PFC for EN61000-3-2 Class D Compliance
- DSP Control; Energy Efficient Operation
- Front Panel LED Indicators
- Full 2000W up to +55°C (derates up to +75°C)
- CAN Bus Communication
- International Safety Approvals



INPUT SPECIFICATIONS:

VOLTAGE	85VAC ~ 283VAC; see Derating for < 176VAC
FREQUENCY	45Hz ~ 63 Hz
INRUSH	≤ 20A @ 230VAC Full Load (Max Cold Start)
CURRENT	≤ 10A @ 230VAC (Max Continuous)
PROTECTION	15A Fuse, each line (L, N); TVS for Transients
LEAKAGE	< 3.5mA @ 264VAC
INPUT PROTECTION	Input Undervoltage; Output Overvoltage
EFFICIENCY	96% typical (30%~70% Load)
HARMONICS	EN61000-3-2 Class D (>0.99PF; > 50% load)

OUTPUT SPECIFICATIONS:

OUTPUT VOLTAGE	54Vdc (typical)
OUTPUT CURRENT	37A (2KW max, continuous) @ AC input ≥ 176V
LINE REGULATION	±0.5%, across full input range
LOAD REGULATION	±0.5%, across full load range
RIPPLE	≤250mV p-p; ≤ 20mVrms (20MHz BW)
OUTPUT ADJUSTMENT	43.5Vdc ~ 58Vdc
EXCURSION	±3% max, 50% Step Load
RECOVERY	100ms, max
OVER-CURRENT	OCP (see Power Derating curves)
PROTECTION	OVP, Power Deratings, Thermal Shutdown

STATUS LED & COMMUNICATION:

STATUS LED/[ALARM]	Green=[OK]; Yellow=[Minor]; Red=[Major]
COMMUNICATION	CAN Bus

SAFETY STANDARDS:

UL/cUL	IEC/UL 60950-1
CE MARK	Low Voltage Directive
NEBS	Designed to Meet Telcordia GR-63-CORE (pending)

GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE	-40°C to +75°C (derate 2%/°C above +55°C)
OPERATING HUMIDITY	10% ~ 95% (non-condensing)
STORAGE	-40°C to +85°C; 5% ~ 95% RH (non-condensing)
COOLING	Intelligent Fan; Front-to-back airflow
ACOUSTIC NOISE	< 55dBA (nominal input, full load, Ta > 40°C)
VIBRATION	10-55Hz, 2G, 3Min Period, 60 min each (3 axes)
SHOCK	20G Peak Acceleration
RELIABILITY	>350K Hours (per MIL STD 217F)
SIZE (WxDxH)	108.2mm x 321.7mm x 41.0mm
WEIGHT	2.18kg (4.8 lbs)
INSULATION	3KVAC I-0; 1.5KVAC I-Earth; 0.5KVDC O-Earth

EMISSIONS:

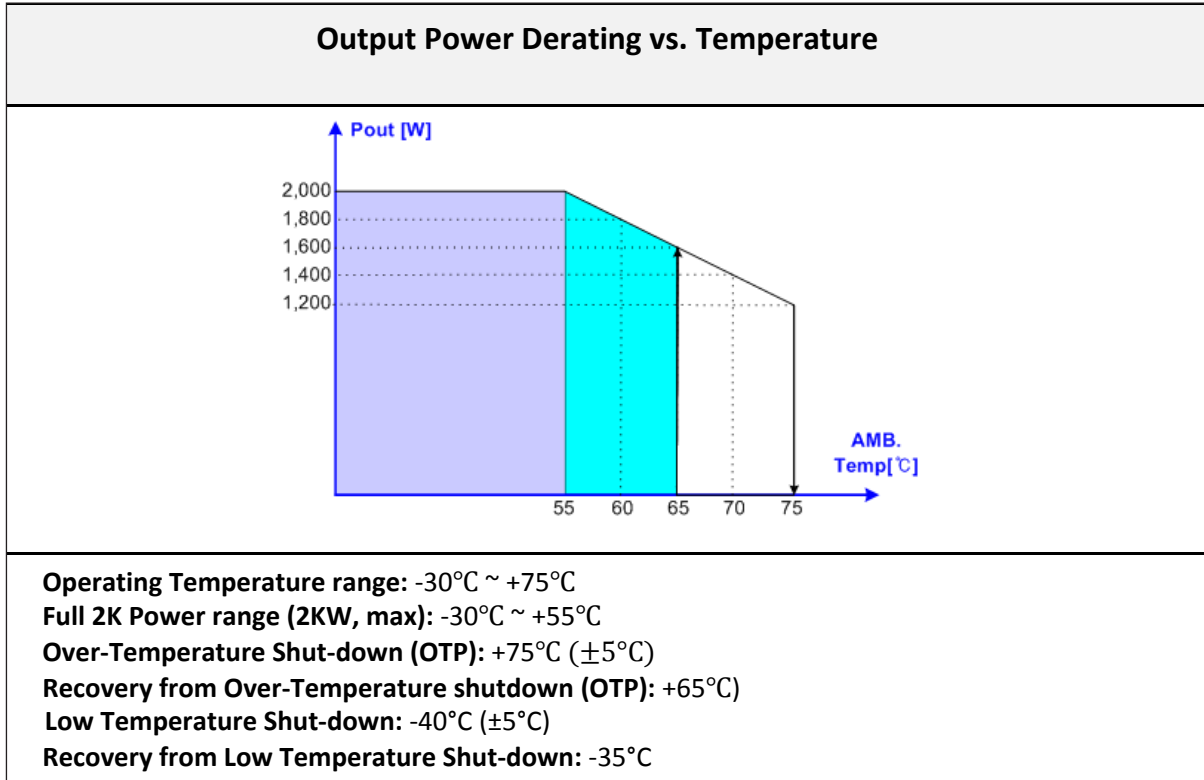
EMISSIONS	EN55022 Level B (Conducted)
ELECTROSTATIC DISCHARGE	EN61000-4-2, 4KV Contact/ 8KV Air
RADIATED SUSCEPTIBILITY	EN61000-4-3, 26MHz-2000MHZ, 10V/m, 80%AM
EFT/BURSTS	EN61000-4-4, 2KV
SURGES	EN61000-4-5, 2KV Earth, 1KV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 150KHz-80MHz, 10Vrms, 80%AM
VOLTAGE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

OUTPUT MODELS:

Output Model:	Rectifier Output		
	VDC	Io (Min)	Io (Max)
NESPACE-48/2K	54V	0A	37A



DERATING CURVES:



NESPACE RECTIFIER FRONT PANEL INDICATORS	
ALARMS	
-	Low AC Mains / Shutdown
-	AC Input out-of-range; LEDs Flashing at AC Overvoltage
-	High Temperature Shutdown
-	Low Temperature Shutdown
-	Rectifier Failure
-	DC Output Overvoltage Shutdown
-	Fan Failure
-	DC Low Voltage Alarm at 43.0V
WARNINGS	
-	Rectifier in Power Derate mode
-	Loss of CAN Communication with Control Unit (stand-alone mode)
VISUAL INDICATORS	
	GREEN LED: Rectifier is ON with no alarms or warnings
	YELLOW LED: Rectifier Warning
	RED LED: Rectifier Failure

DERATING CURVES:

