

REV: 03032015

## PRODUCT FEATURES:

- 1RU Height, 3000W Rectifier Module
- High Efficiency (96% at 40%~60% Load)
- Universal AC Input
- Active PFC for EN61000-3-2 Class D Compliance
- DSP Control; Energy Efficient Operation
- Front Panel LED Indicators
- Full 3000W up to +45°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	≤ 25A @ 230VAC Full Load (Max Cold Start)
CURRENT	≤ 12A @ 230VAC (Max Continuous)
PROTECTION	MAINS Fuse, each line (L, N); TVS for Transients
LEAKAGE	< 3.5mA @ 264VAC
INPUT PROTECTION	Input Undervoltage; Output Overvoltage
EFFICIENCY	96% typical (40%~60% Load)
HARMONICS	EN61000-3-2 Class D (>0.99PF; > 50% load)

## OUTPUT SPECIFICATIONS:

OUTPUT VOLTAGE	54Vdc (typical)
OUTPUT CURRENT	55.5A (3KW max, continuous) @ AC input ≥ 176V
LINE REGULATION	±0.5%, across full input range
LOAD REGULATION	±0.5%, across full load range
RIPPLE	≤300mV 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 (pending)
CE MARK	Low Voltage Directive (pending)
NEBS	Designed to Meet Telcordia GR-63-CORE (pending)

## GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE	-40°C to +75°C (derate 2%/°C above +45°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	< 60dBA (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	2.30 kg (5.07 lbs)
INSULATION	3KVAC I-0; 1.5KVAC I-Earth; 0.5KVDC O-Earth

## EMISSIONS:

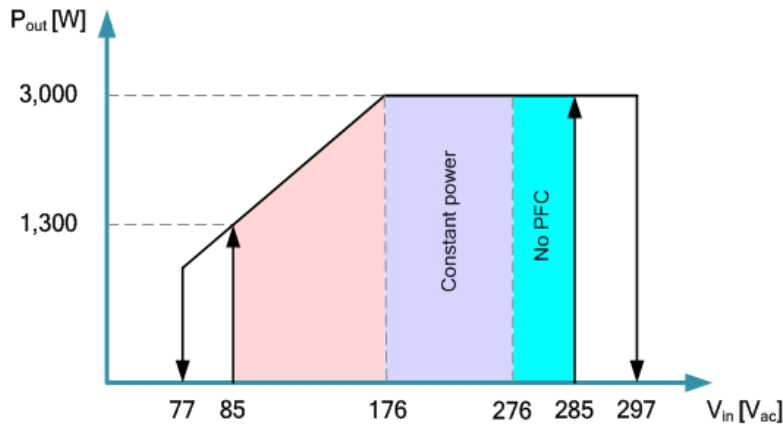
EMISSIONS	EN55022 Level A (Conducted)
ELECTROSTATIC DISCHARGE	EN61000-4-2, 4KV Contact/ 8KV Air
RADIATED SUSCEPTIBILITY	EN61000-4-3, 26MHz-2000MHZ, 10V/m, 80%AM
EFT/BURSTS	EN61000-4-4, 2KV
SURGES	EN61000-4-5, 2KV Earth, 1KV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 150KHz-80MHz, 10Vrms, 80%AM
VOLTAGE 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-48/3K	54V	0A	55.5A

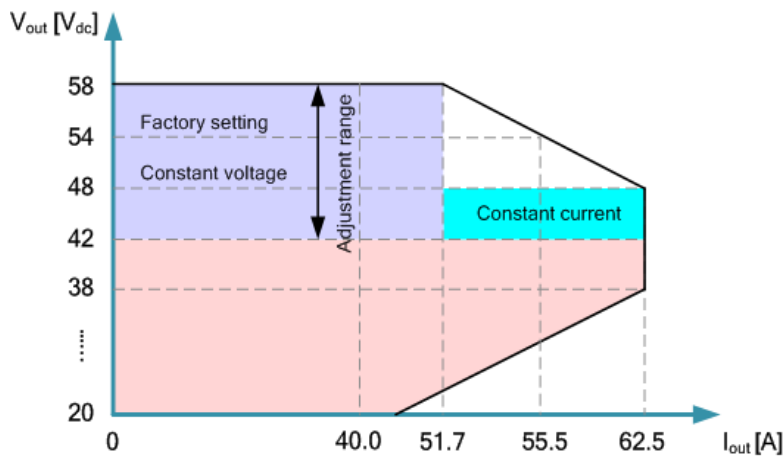


### AC INPUT:



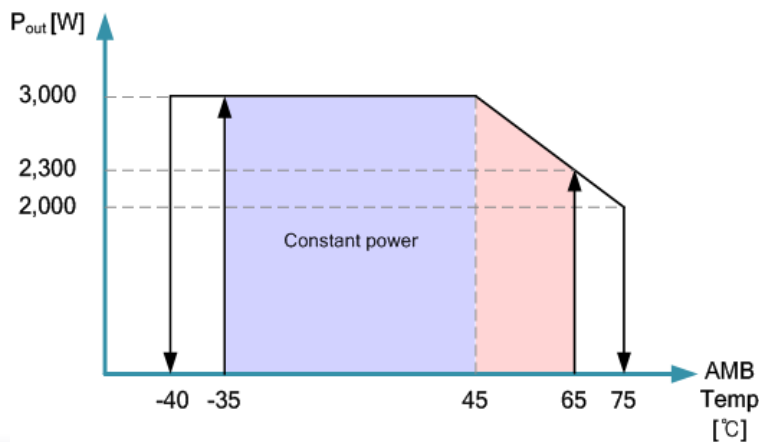
- Voltage range : 85Vac ~ 297Vac
- Constant power range (Max 3KW)  
: 176Vac ~ 297Vac
- Shut-down. Voltage
  - OVP : 297Vac (recovery 285Vac)
  - UVP : 77Vac (recovery 85Vac)

### DC INPUT:



- Voltage range : -42.0Vdc ~ -58.0Vdc
- Constant power range (Max 3KW)  
: -48.0Vdc ~ -54.0Vdc

### TEMPERATURE:



- Operating temperature : -40°C ~ 75°C
- Constant power range (Max 3KW)  
: -40°C ~ 45°C
- Shut-down. Temperature (Tolerance:  $\pm 5^\circ\text{C}$ )
  - : 75°C (recovery 65°C)
  - : -40°C (recovery -35°C)



OUTLINE DRAWING:

