

NEVO+600 SERIES

- rModular
- rConfigurable
- rPatentspending
- rReducedfan noise
- rEnhancedLineDerating

600 watt in the palm of your hand

The enhanced NEVO+ series features improved low input line derating delivers 600 watts without the need to derate for line voltages above 120Vac making the NEVO+ the ultimate power solution for products destined for the global market. Through the implementation of a fan control circuit the NEVO+ also features reduced fan noise. The NEVO+ delivers up to 600 watts from a 600 gram 5" x 3" x 1U package and consists of an input module together with up to four isolated output modules. The series carry full UL60601 safety approvals and comply with EN61000B, EN610004 and EN550022B EMC standards.

MAIN FEATURES:

- 9 No Line derating above 120VAC
- 9 Reduced fan noise
- 9 600 watt output
- 9 5" x 3" x 1U footprint
- 9 High power density (25W/in³)
- 9 Medical approvals
- 9 High reliability
- 9 High efficiency – up to 89%
- 9 Only 0.6kg – 100W/kg
- 9 I²C control option
- 9 Remote current/voltage programming
- 9 Current output signal
- 9 Accurate current sharing
- 9 5V 200mA bias supply
- 9 RoHS compliant
- 9 Field configurable
- 9 Two year warranty

SYSTEM SPECIFICATIONS

INPUT ELECTRICAL						
Parameter	Details	Min	Typ	Max	Units	
AC Input Voltage	Nominal range is 100Vrms to 240Vrms	85		264	Vrms	
AC Input Frequency	Contact factory for 400Hz operation.	47	50/60	63	Hz	
DC Input Voltage	Medical	120		300	Vdc	
Power Rating	See graphs for deratings			600	Watts	
Input Current	600Watts output at 120Vrms input			6	Amps	
Inrush Current	265Vrms (cold start)			20	Amps	
Fusing	5x20 Fastacting			8	Amps	
Input Current Limit	Maintains power factor		8		Amps	
Efficiency	See graphs		86	89	%	
Idle Power	All outputs fitted and enabled		28		Watts	
Idle Power	All outputs fitted and Disabled		21		Watts	
Power Factor	Typical value for 300Watts output at 240Vrms input		0.96	0.99		
Holdup	600Watts output at 120Vrms input	17	20	21	mS	
UVLO	Turn on only	78		84	Vrms	
Overtemperature	Internally monitored. Latching	115		125	°C	
Reliability	40°C 80% load			2	FPMH	
Signals	Bias Voltage	4.8	5	5.2	V	
	Bias current	0		200	mA	
	Power Good voltage	PNP open collector with internal 10k pull down resistor	8	10	15	V
	Power Good current		0		20	mA
	Inhibit voltage		2		15	V
	Inhibit current	10k ohm input impedance	0.2		1.5	mA
	Global inhibit voltage		3		15	V
	Global inhibit current	5k ohm input impedance	0.6		3	mA
	AC_OK voltage		1		4	V
	AC_OK current		10		20	mA
AC_OK warning	See user manual for exceptions	5			mS	

INSTALLATION			
Parameter	Details	Parameter	Details
Equipment class	I	Flammability rating	94V2
Installation category	II	IP Rating	IP10
Pollution degree	2	ROHS Compliance	2002/95/EC
Material group	IIIb (indoor use only)		

RELIABILITY			
Component	Details	Min	Max

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MEDICAL DATASHEET

ENVIRONMENTAL

	Parameter	Details	Min	Max	Units
Storage	Temperature		40	+85	°C
	Humidity	Relative, non condensing	5	95	%
	Altitude		200	5000	m
	Air Pressure		54	106	kPa
Operation	Temperature	Full power Derate input and outputs at 2.5%/°C	20	50	°C
	Humidity	Relative, non condensing	5	95	%
	Altitude	(200 to 2000m for UL606011)	200	3000	m
	Air Pressure		78	106	kPa
	Noise Level	Variable. Measured 1m from fan intake	35	60	dBA
	Shock	3000 bumps at 10G(16ms) half sinewave			
	Vibration	1.5G 10 to 200Hz sinewave, 20G for 15min in 3 axes random vibration			

EMC

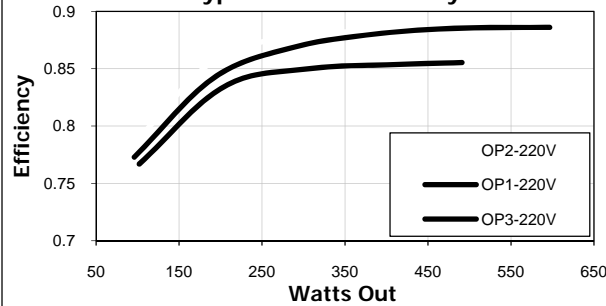
	Parameter	Standard	Level
Emissions	Radiated electric field	EN55011 EN55022 FCC	B
	Conducted emissions	EN55011 EN55022 FCC	B
	Harmonic Distortion	EN61000 2	Compliant
	Flicker & Fluctuation	EN61000 3	Compliant
Immunity	Electrostatic discharge	EN61000 4 2 (15kV air, 8kV contact)	4
	Radiated RFI	EN61000 4 3 (10V/m)	3
	Fast Transient burst	EN61000 4 4 (4kV)	4
	Input line surges	EN61000 5 (1kV LN, 2kV LE)	3
	Conducted RFI	EN61000 6 (10V)	4
	Power Freq. Magnetic Field	EN61000 8 (10A/m)	3
	Voltage Dips	EN61000 11 (EN55024)	Compliant

AGENCY APPROVALS

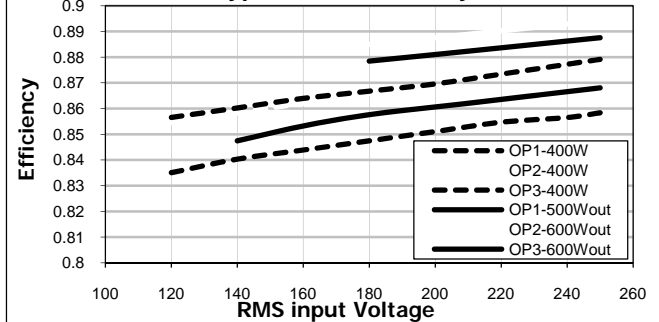
Standard	Details	Standard	Details
IEC/EN60601			
UL60601			
CSAC 22.2 No. 60601 08			
CE MARK	LVD 73/23/EEC	UL file number	UL: E316486

CE certificate and report available on request

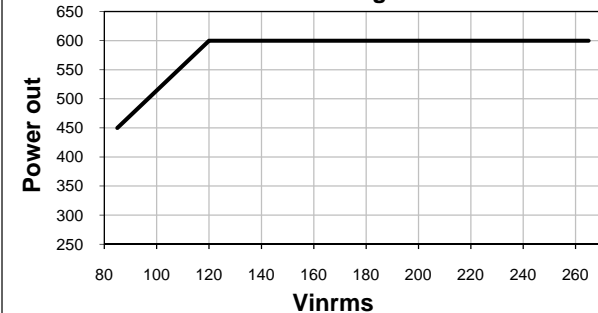
Typical Load Efficiency



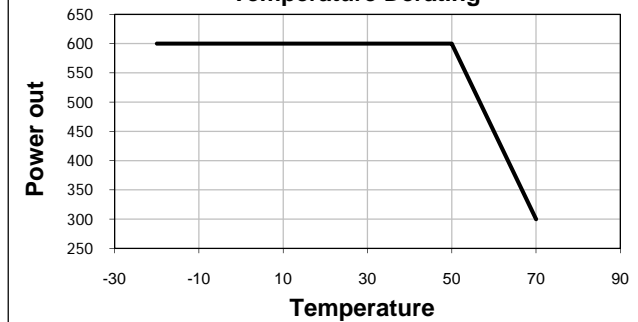
Typical Line Efficiency



Line Derating



Temperature Derating



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MEDICAL
DATA SHEET

MECHANICAL DIMENSIONS AND MOUNTING SCREWS

SCREWS	
MH1, MH2, MH3, MH4, MH5	
Screw type	M4
Tightening	Tighten to 1.5 Nm
Penetration depth	4.00 mm max including chassis
OUTPUT MODULES 8	
Screw type	M3x5, C/Sink, Posi, Stainless Steel
Tightening	Tighten to 0.75 Nm
Penetration depth	Defined by screw
CHASSIS 65	
Screw type	M3x5, C/Sink, Posi, Stainless Steel
Tightening	Tighten to 0.75 Nm
Penetration depth	Defined by screw
FAN x 2	
Screw type	M3x24, C/Sink, Posi, Stainless Steel
Tightening	Tighten to 0.75 Nm
Penetration depth	Defined by screw



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MEDICAL DATASHEET

CONNECTORS

PINOUTS	
J1	
Circuit	Details
1	Live
2	Earth
3	Neutral
J2	
Circuit	Details
1	PowerGood
2	Inhibit
3	PowerGood
4	Inhibit
5	PowerGood
6	Inhibit
7	PowerGood
8	Inhibit
9	GlobalInhibit
10	ACOK
11	+5V200mA Bias Supply
12	COM
J5	
Circuit	Details
1	Sense r
2	+Sense
3	VoltageControl
4	CurrentControl/ Share/ Out
5	COM
6	+5Vlocalbiassupply

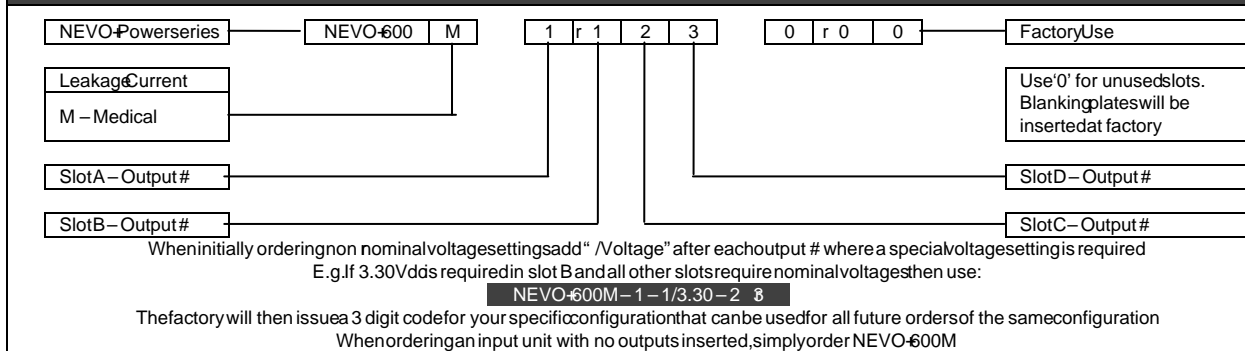
J3
PositiveOutput
J4
NegativeOutput

REF.	DETAILS	MANUFACTURER	TERMINAL
J1	MAIN INPUT 3 Pin, 5.08mm, with Friction Lock, 18 24 AWG	MOLEX	8701031
J2	GLOBAL SIGNALS 2 Pin, 2mm, with Friction Lock, 24 30 AWG	MOLEX	503948051
J2	IDT ALTERNATIVE DRJ2	MOLEX	N/A
J3/4(1)	OUTPUT POWER TERMINAL SIZE B.35mmx0.8mm	VARIOUS	N/A
J5	OUTPUT SIGNALS 5 Pin, 1.25mm, with Friction lock, 28 32 AWG	MOLEX	1510210600 50058800

Notes

- Terminal and Wire current rating must exceed maximum short circuit output current. Eg. Output 1 = 25A * 1.25 = 31.25Amps
- Direct equivalents may be used for any connector parts
- All cables must be rated 105°C min, equivalent to UL1015

PART NUMBERING SYSTEM



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