

- Industrial Approvals
- Pre-Configured
- V Range (9V to 30V)



600 watt in the palm of your hand

The NEVO600S-3-3-3-3 is a pre-configured modular power supply offering unrivalled performance and flexibility. Delivering a full 600W in a 5 x 3 inch footprint at line voltages of ≥ 180VAC (de-rate linearly to 400W at 120VAC); the NEVO is the ultimate power solution for applications where size and weight are vital factors. Each system consists of an input module together with four isolated output modules which can also be connected in series to provide up to 120V at 5A and in parallel to provide up to 30A at 24V. Each unit carries UL60950 safety approvals and complies with EN61000-3, EN61000-4 and EN550022-B EMC standards.

MAIN FEATURES:

- √ 600 watts at ≥ 180VAC
- √ 5" x 3" x 1U footprint
- ✓ High power density (25W/in³)
- ✓ Industrial approvals
- √ Adjustable output voltage
- √ High efficiency up to 89%
- ✓ Only 0.6kg 100W/kg
- √ High reliability
- √ Remote current/voltage programming
- ✓ Accurate current sharing

- ✓ Current output signal
- √ 5V 200mA bias supply
- ✓ RoHS compliant
- ✓ Field configurable
- √ Two year warranty

SYSTEM SPECIFICATIONS

INPUT ELECTRICAL								
	Parameter	Details	Min	Тур	Max	Units		
AC Input Voltage		Nominal range is 100Vrms to 240Vrms	85		264	Vrms		
AC I	nput Frequency	Contact factory for 400Hz operation		50/60	63	Hz		
DC I	nput Voltage				370	Vdc		
	er Rating	See graphs for deratings			600	Watts		
	it Current	600 Watts output at 180Vrms input			4	Α		
	sh Current	265Vrns (cold start)			20	Α		
Fusi		5 x 20 Fast acting			5	Α		
Inpu	it Current Limit	Maintains power factor		6		Α		
	iency	See graphs		86	89	%		
	Power	All outputs fitted and enabled		28		Watts		
Idle	Power	All outputs fitted and disabled		21		Watts		
Pow	er Factor	Typical value for 300 Watts output at		0.96	0.99			
1 0 00	Ci i actoi	240Vrms input		0.50	0.55			
Holo		600 Watts output at 180Vrms input	17	20	21	mS		
UVL	-	Turn on only	78		84	Vrms		
	r Temperature	Internally monitored, Latching 1			125	°C		
Relia	ability	40°C 80% load			2	FPMH		
	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	pull down resistor	0		20	mA		
(0	Current		U		20	IIIA		
ä	Inhibit Voltage		2		15	V		
Ž	Inhibit Current	10k ohm input impedance	0.2		1.5	mA		
SIGNALS	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		5			mS		

SYSTEM OUTPUT ELECTRICAL						
Maximum System	Achieved when all four outputs are			30	Α	
Current connected in parallel						
Maximum System Voltage	Achieved when all four outputs are connected in series. Warning – SELV			120	V	
	voltage will be exceeded					

NOTES:

- Refer to the user manual when connecting units in series and/or in parallel.
- All specifications are believed to be correct at time of publication and are subject to change without notice.

	INDIVIDUAL OUTPUT ELECTRIC	AL			
Parameter	Details	Min	Тур	Max	Units
Output Voltage Range	See table for limits	9	24	30	V
Rated Current	occ table for initial			7.5	A
Average Output Power				150	Watts
Peak Output Power	See graph, < 5 seconds 50% duty cycle			225	Watts
Initial Voltage Accuracy	Factory set units	-0.5		0.5	%
Manual Voltage Adjust	11 turn potentiometer		1.9		V/turn
Load Regulation	Measured at sense terminals	-150		150	mV
Line Regulation	Measured at sense terminals	-0.1		0.1	%Vnom
Cross Regulation	Measured at sense terminals	-0.2		0.2	%Vnom
Minimum Load				0	Watts
Temperature Coefficient		-0.02		0.02	%/°C
Ripple and Noise	20MHz BW, pk-pk			1	%Vnom
Transient Response	25% to 75% load transient at 0.5A/uS			3	V
Town On Bins Times	Recovery to within 10% of Vset	1 -		100	uS
Turn On Rise Time	Monotonic 10% to 90%	1.5		3.5	mS
Turn On Overshoot	AC to PG		600	0.1 750	%/Vset mS
Turn On Delay	EN to PG				
	EN to PG		15	20	mS
Current Share Accuracy				5	%Imax
Open Sense Offset	Open sense, voltage offset due to bias currents			2	%Vnom
Holdup Voltage				25	V
Isolation to Ground	Each terminal			250	V
Over Current Protection	% of rated current	105		125	%Irated
Reverse Current Protection	% of rated current	-6		0	%Irated
Short Circuit Protection (Hiccup Mode)	Period Duty cycle Voltage threshold (Measured at sense terminals)		125 3 3.5		mS % V
Over Voltage Protection	Latching		36		V
Over Temperature	Internally monitored, Latching	115		125	°C
Protection					
Sense Cable Protection	Positive	-1		2	V
	Negative			1	V
Power Good Threshold	Low threshold only		90		%Vset
Current Output Signal	$I_{SIG} = 0.6 + I_{OUT} / (I_{RATED} * 1.25)$	0		110	%Irated
Current Limit Control	I _{LMT} = (V _{CTRL} - 0.6) * I _{RATED} * 1.25	0		110	%Irated
	,				
Remote Voltage Control	$V_{OUT} = V_{SET} ((1.8 - V_{CTRL}) / 0.6)$	0		300	%Vset
Bias Supply	10mA max	4.5	5	5.2	V
Reliability	40°C 80% load			1	FPMH
Warranty				2	Years
Wire Size		20	18	10	AWG
Weight			60		Grams
Size	60mm x 35mm x 17mm				





Patents pending

INSTALLATION						
Parameter	Details	Parameter	Details			
Equipment Class	I	Flammability Rating	94V-2			
Installation Category	II	IP Rating	IP10			
Pollution Degree	2	RoHS Compliance	2002/95/EC			
Material Group	IIb (Indoor use only)					

RELIABILITY						
Component	Details	Min	Max	Units		
Fan	Mag Lev Std		3.8	FPMH		
Input	Excluding Fan		2	FPMH		
Output	See individual output datasheets		1	FPMH		
Warranty			2	Years		

SAFETY						
Parameter	Details	Min	Max	Units		
	Input to Output		4000	Vac		
	Input to Chassis		1500	Vac		
Isolation Voltage	Output to Chassis		250	Vdc		
	Output to Output		250	Vdc		
Isolation Clearance	Primary to Secondary (Reinforced)	7		mm		
	Primary to Chassis (Basic)	2.5		mm		
Isolation Creepage	Primary to Secondary (Reinforced)	12		mm		
	Primary to Chassis (Basic)	4		mm		
Leakage Current	265Vac, 63Hz, 25°C		1500	uA		

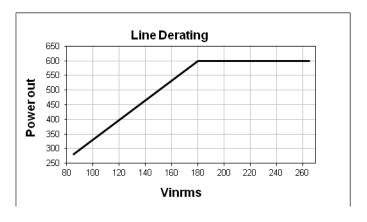
	ENVIRONMENTAL							
	Parameter	Details	Min	Max	Units			
	Temperature		-40	+85	°C			
a)	Humidity	Relative, non-condensing	5	95	%			
Storage	Altitude		-200	5000	m			
S	Air Pressure		54	106	kPa			
	Temperature	Full Power	-20	50	°C			
		Derate input and output at 2.5% / °C	50	70	°C			
	Humidity	Relative, non-condensing	5	95	%			
Operation	Altitude (-20	(-200 to 2000m for UL60601-1)	-200	3000	m			
0	Noise Level	Measured 1m from fan intake		45	dBA			
	Shock	3000 bumps at 10G (16mS) half	sine wa	ave				
	Vibration	1.5G 10 to 200Hz sine wave, 200 random vibration	G for 15	5min in 3	axes			

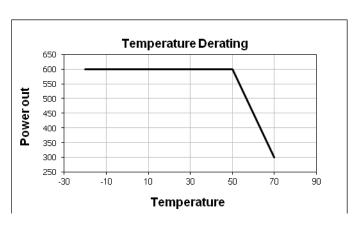
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	Parameter	Standard	Level
S	Radiated Electric Field	EN55011, EN55022, FCC	В
sion	Conducted Emissions	EN55011, EN55022, FCC	В
Emissions	Harmonic Distortion	EN61000-3-2	Compliant
Е	Flicker & Fluctuation	EN61000-3-3	Compliant
	Electrostatic Discharge	EN61000-4-2	4
		(15kV air, 8kV contact)	4
	Radiated RFI	EN61000-4-3 (10 V/m)	3
≥	Fast Transient Burst	EN61000-4-4 (4kV)	4
Immunity	Input Line Surges	EN61000-4-5 (1kV L-N,	3
E		2kV L-E)	3
=	Conducted RFI	EN61000-4-6 (10V)	4
			*
	Power Freq. Magnetic Field	EN61000-4-8 (10A/m)	3
	Voltage Dips	EN61000-4-11 (EN55024)	Compliant

MECHANICAL				
Parameter	Details			
Size	77.7mm x 129.7mm x 41mm			
	(all external dimensions ± 1.0mm)			
Weight	360 gram + 60 gram per output module			
Mounting Bottom or Side mounting (See diagram for details				

AGENCY APPROVALS					
Standard	Details	Standard	Details		
IEC/EN60950-1					
UL60950-1					
CSA-C22.2 No. 60950-1- 03					
CE MARK	LVD 73/23/EEC	UL file number	UL: E316486		

INPUT ELECTRICAL GRAPHS



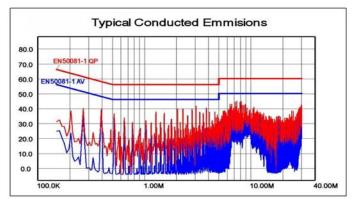


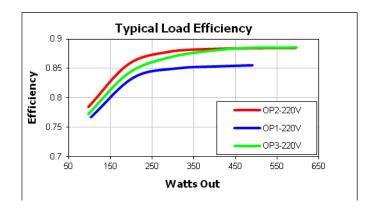
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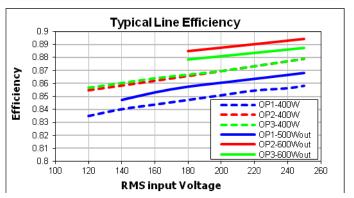


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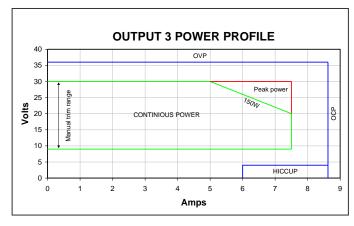
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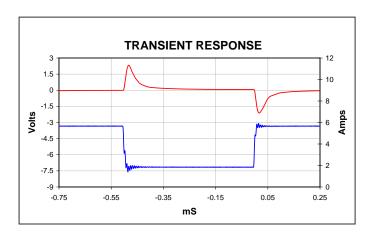


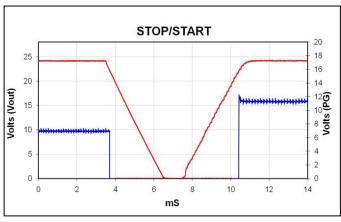


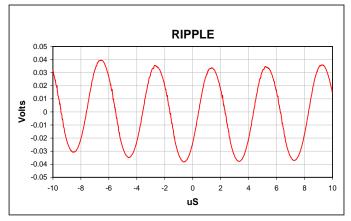


OUTPUT ELECTRICAL GRAPHS



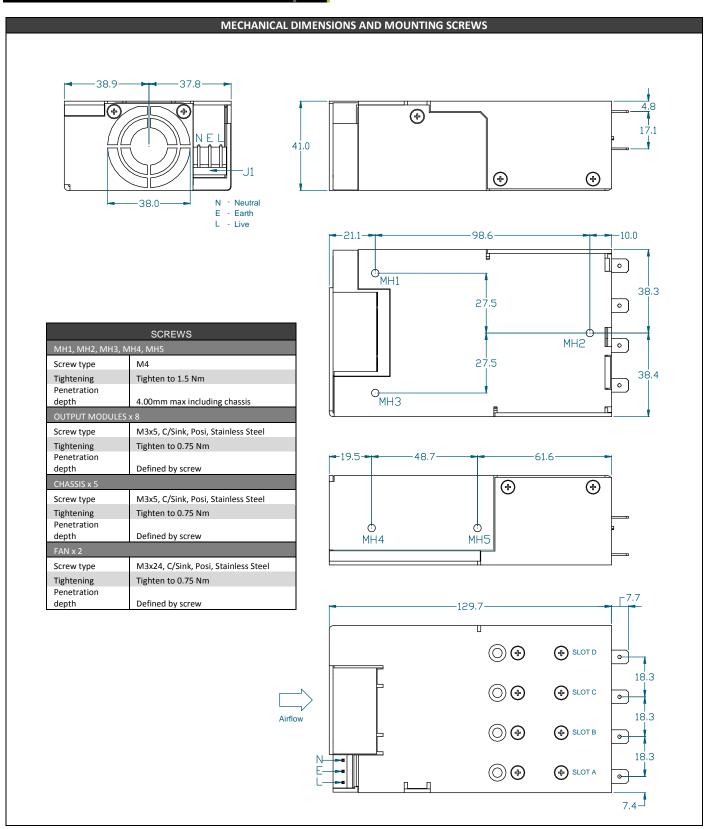








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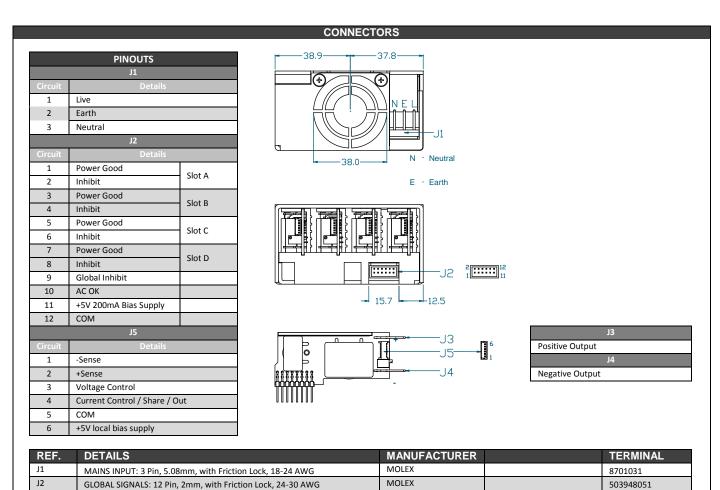




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VARIOUS

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MOLEX

MOLEX

VARIOUS

J3/4(1) J5 Notes

J2

- 1. 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

IDT ALTERNATIVE FOR J2

3. All cables must be rated 105°C min, equivalent to UL1015

OUTPUT POWER TERMINAL: TAB SIZE 6.35mmx0.8mm

OUTPUT SIGNALS: 6 Pin, 1.25mm, with Friction lock, 28-32 AWG

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