NEVO+600M MEDICAL DATA SHEET

AC/DC Modular Configurable PSU





600 Watts in the palm of your hand

The NEVO+600M modular configurable medical power supply is the smallest in its class and the ultimate solution for demanding medical applications where size, power density and weight matter. Its tiny footprint of 5" x 3" x 1.61" weighs only 600 grams and delivers an incredible 600 Watts - equating to a power density of 25 Watts per cubic inch. The input module can accommodate up to four isolated output modules which can be configured into a high power 5"x 3" single output power supply or a multiple output power supply with up to 8 isolated outputs. Standard features include intelligent fan control providing optimised airflow for various load and temperature conditions, wide output voltage adjust, parallel and series connection of modules and an isolated 5V 1A bias supply. A low noise fan option is available that allows you to use this innovative power supply in even the quietest of environments. The series is approved to latest medical standards and features market leading specifications and design in application support.

MAIN FEATURES

- 600 Watts in 5" x 3" x 1.61"
- User and field configurable
- Wide output voltage adjust range
- Remote current & voltage programming
- Efficiency up to 89%
- Intelligent fan control
- Parallel & series connection of modules
- Standard 5V 1A bias supply
 - Accurate current sharing
- Up to 8 isolated outputs
- Low noise option (ML version)
- IEC/UL60601-1 Ed. 3 & -1-2 Ed. 4 (EMC)
- 3 Year warranty

APPLICATIONS

 Medical & diagnostic equipment 	 Telecommunications 	Lasers
 Test & Measurement equipment 	 Laboratory & Analysis equipment 	LED lighting
Robotics	• Display	 Retrofit of legacy PSUs
Oil & Gas	Avionics	

CUSTOMER BENEFITS

- Fast time to market
- 24 hrs samples from distribution
- Safety & EMC certified
- World class engineering support
- Proven technology Eliminates custom design costs
- Field replaceable
- Technology consolidationSupplier consolidation
 - Redundant manufacturing sites
- Low cost of ownership
- Page 1 of 5 Vox Power Limited | Unit 2, Red Cow Interchange Estate, Ballymount, Dublin 22, D22 Y8H2, Ireland | T +353 1 4591161 | www.vox-power.com



DOC-DTS-002-08, NEVO+600M Medical Datasheet Singel 3 | B-2550 Kontich | Belgium | Tel. +32 (0)3 458 30 33 | info@alcom.be | www.alcom.be Rivium 1e straat 52 | 2909 LE Capelle aan den Ijssel | The Netherlands | Tel. +31 (0)10 288 25 00 | info@alcom.nl | www.alcom.nl

SPECIFICATIONS

INPUT MODULE SPECIFICATIONS							
Parameter	Details	Min	Typical	Max	Units		
AC Input Voltage	Nominal range is 100V _{RMS} to 240V _{RMS}	85		264	V _{RMS}		
AC Input Frequency	Contact factory for 400Hz operation.	47	50/60	63	Hz		
DC Input Voltage	Not covered by safety approvals. Contact Vox Power.	120		300	V _{DC}		
Output Power Rating	De-rate linearly from 600Watts at $120V_{RMS}$ to 450Watts at $85V_{RMS}$			600	Watts		
Input Current	600Watts output at 120 V _{RMS} input			б	Amps		
Input Current Limit	Maintains power factor		8		Amps		
Inrush Current	265V _{RMS} , 25°C (cold start)			20	Amps		
Fusing	Live line fused (5x20 Fast acting)			8	Amps		
Efficiency	See graphs		86	89	%		
No load Power consumption	All outputs fitted and disabled/enabled		21/28		Watts		
Power Factor	Typical value for 300 Watts output at 240Vrms input		0.96	0.99			
Holdup	600Watts output at 120V _{RMS} input	17	20	21	mS		
UVP	Turn on under voltage protection	78		84	V _{RMS}		
Over temperature	Internally monitored.	115		125	°C		
Reliability (1)	Input module			1.207	FPMH		
	Fan			2.7	FPMH		
Warranty	Standard terms and conditions apply			3	Years		
Size	133.7 (L) x 77.7 (W) x 41.0 (H). See diagram for tolerance details				mm		
Weight	360 + 60 per output module				Grams		
Note 1.	30°C base & ambient, 100% load, SR332 Issue 2 Method I, Case 3, Ground, Fixed, Contro	lled					

GLOBAL SIGNALS SPECIFICATIONS							
Parameter	Details	Min	Typical	Max	Units		
Bias Voltage		4.8	5	5.2	Volts		
Bias Current				1	Amps		
AC_OK Voltage	Low output level/High output level	0/4.8	0.2/5	1/5.2	Volts		
AC_OK Current		-10		20	mA		
Power Good Voltage	PNP open collector with internal 10kΩ pull down. Low output level/High output level	0/8	0/10	0/15	Volts		
Power Good Current	Open collector output. Current source only. All Slots.			20	mA		
Global Inhibit Voltage	Low input level/High input level.	0/3		1/15	Volts		
Global Inhibit Current	5k input impedance.	0.6		3	mA		
Inhibit Voltage	Low input level/High input level. All slots.	0/2.5		1/15	Volts		
Inhibit Current	10k input impedance. All slots.	0.25		1.5	mA		
	OUTPUT MODULE SPECIFICATION SUMMARY						

	•	5	Output	Rated	Peak	Load	Line	Cross	Ripple &	FPMH ⁽¹⁾	Feature
Min.	Nom.	Max.	Current	Power	Power	Reg.	Reg.	Reg.	Noise		Set ⁽²⁾
1.5V	5V	7.5V	25A	125W	187.5W	±50mV	±5mV	±10mV	50mV _{PP}	0.5	ABCDEFG
4.5V	12V	15V	15A	150W	22 <mark>5</mark> W	±100mV	±12mV	±24mV	120mV _{PP}	0.5	ABCDEFG
9V	24V	30V	7.5A	150W	225W	±150mV	±24mV	±48mV	240mV _{PP}	0.5	ABCDEFG
18V	48V	58V	3.75A	150W	217.5W	±300mV	±48mV	±96mV	480mV _{PP}	0.5	ABCDEFG
3.3V	12V	15V	5A	2x 75W	2x 75W	±50mV	±12mV	±24mV	240mV _{PP}	0.75	AFG
23.2V	24V	24.7V	3.125A	2x 75W	2x 75W	±100mV	±24mV	±48mV	480mV _{PP}	0.75	AFG
4.5V	12V	15V	25A	300W	375W	±100mV	±12mV	±24mV	120mV _{PP}	0.5	ABCDEFGH
9V	24V	30V	15A	300W	450W	±150mV	±24mV	±48mV	240mV _{PP}	0.5	ABCDEFGH
Output r	nodule, 30°	°C base, 10	0% load, SR332	issue 2 Metho	d I, Case 3, Gro	und, Fixed, Co	ontrolled				
A = Rem	ote Sense, l	3 = Extern	al Voltage contro	ol, C = External	constant curre	ent control, D	= Current ou	itput signal, E	= Current share,	F =Over Voltag	e protection,
	Min. 1.5V 4.5V 9V 18V 3.3V 23.2V 4.5V 9V Output r	Min. Nom. 1.5V 5V 4.5V 12V 9V 24V 18V 48V 3.3V 12V 23.2V 22V 4.5V 12V 9V 24V 0.12V 24V 12V 24V 9V 24V Output module, 30°	1.5V 5V 7.5V 4.5V 12V 15V 9V 24V 30V 18V 48V 58V 3.3V 12V 15V 23.2V 24V 24.7V 4.5V 12V 15V 9V 24V 30V 0type 24V 30V	Output Volt> Output Current Min. Nom. Max. Output Current 1.5V 5V 7.5V 25A 4.5V 12V 15V 15A 9V 24V 30V 7.5A 18V 48V 58V 3.75A 23.2V 24V 24.7V 3.125A 4.5V 12V 15V 25A 9V 24V 24.7V 3.125A 9V 24V 30V 15A 9V 24V 30V 15A	Output Voltage Output Current Rated Power Min. Nom. Max. Current Power 1.5V 5V 7.5V 25A 125W 4.5V 12V 15V 15A 150W 9V 24V 30V 7.5A 150W 18V 48V 58V 3.75A 150W 3.3V 12V 15V 5A 2x 75W 3.3V 24V 24.7V 3.125A 2x 75W 4.5V 12V 15V 5A 2x 75W 4.5V 12V 15V 25A 300W 9V 24V 30V 15A 300W 9V 24V 30V 15A 300W	Output Voltage Output Current Rated Power Peak Power 1.5V 5V 7.5V 25A 125W 187.5W 4.5V 12V 15V 15A 150W 225W 9V 24V 30V 7.5A 150W 225W 18V 48V 58V 3.75A 150W 217.5W 3.3V 12V 15V 5A 2x 75W 2x 75W 3.3V 12V 15V 5A 2x 75W 2x 75W 3.3V 12V 15V 5A 2x 75W 2x 75W 4.5V 12V 15V 5A 2x 75W 2x 75W 4.5V 12V 15V 25A 300W 375W 9V 24V 30V 15A 300W 450W	Output Voltage Output Current Rated Power Peak Power Load Reg. 1.5V 5V 7.5V 25A 125W 187.5W ±50mV 4.5V 12V 15V 15A 150W 225W ±100mV 9V 24V 30V 7.5A 150W 225W ±150mV 18V 48V 58V 3.75A 150W 217.5W ±300mV 3.3V 12V 15V 5A 2x 75W 2x 75W ±50mV 23.2V 24V 24.7V 3.125A 2x 75W 2x 75W ±100mV 4.5V 12V 15V 5A 2x 75W 2x 75W ±100mV 4.5V 12V 15V 5A 2x 75W 2x 75W ±100mV 4.5V 12V 15V 25A 300W 375W ±100mV 9V 24V 30V 15A 300W 450W ±150mV	Output Voltage Output Current Rated Power Peak Power Load Reg. Line Reg. 1.5V 5V 7.5V 25A 125W 187.5W ±50mV ±5mV 4.5V 12V 15V 15A 150W 225W ±100mV ±12mV 9V 24V 30V 7.5A 150W 225W ±100mV ±24mV 18V 48V 58V 3.75A 150W 225W ±300mV ±48mV 3.3V 12V 15V 5A 2x 75W 2x75W ±50mV ±12mV 3.3V 12V 15V 5A 2x 75W 2x 75W ±100mV ±24mV 4.5V 12V 15V 25A 300W 375W ±100mV ±24mV 4.5V 12V 15V 25A 300W 375W ±100mV ±24mV 4.5V 12V 15V 25A 300W 375W ±100mV ±24mV 9V 24V 30V 15A	Min. Nom. Max. Current Power Power Reg. Reg. 1.5V 5V 7.5V 25A 125W 187.5W ±50mV ±5mV ±10mV 4.5V 12V 15V 15A 150W 225W ±100mV ±12mV ±24mV 9V 24V 30V 7.5A 150W 225W ±150mV ±24mV ±48mV 18V 48V 58V 3.75A 150W 217.5W ±300mV ±48mV ±96mV 3.3V 12V 15V 5A 2x75W 2x75W ±50mV ±12mV ±24mV 4.5V 12V 15V 5A 2x75W ±50mV ±12mV ±24mV 4.5V 12V 15V 5A 2x75W ±100mV ±24mV ±24mV 4.5V 12V 15V 25A 300W 375W ±100mV ±24mV ±48mV 9V 24V 30V 15A 300W 450W	Output Voltage Output Rated Current Peak Power Load Reg. Line Reg. Cross Reg. Ripple & Noise 1.5V 5V 7.5V 25A 125W 187.5W ±50mV ±5mV ±10mV 50mV _{FP} 4.5V 12V 15V 15A 150W 225W ±100mV ±12mV ±24mV 120mV _{FP} 9V 24V 30V 7.5A 150W 225W ±150mV ±24mV ±48mV 240mV _{FP} 18V 48V 58V 3.75A 150W 217.5W ±300mV ±48mV ±96mV 480mV _{FP} 3.3V 12V 15V 5A 2x 75W 2x 75W ±12mV ±24mV 240mV _{FP} 23.2V 24V 24.7V 3.125A 2x 75W 2x 75W ±10mV ±24mV ±48mV 480mV _{FP} 4.5V 12V 15V 25A 300W 375W ±10mV ±24mV 120mV _{FP} 9V 24V 30V 15A 300W	Output Voltage Output Current Rated Power Peak Power Load Reg. Line Reg. Cross Reg. Ripple & Noise FPMH ⁽¹⁾ 1.5V 5V 7.5V 25A 125W 187.5W ±50mV ±10mV 50mV _{PP} 0.5 4.5V 12V 15V 15A 150W 225W ±100mV ±12mV ±24mV 120mV _{PP} 0.5 9V 24V 30V 7.5A 150W 225W ±150mV ±24mV ±48mV 240mV _{PP} 0.5 18V 48V 58V 3.75A 150W 217.5W ±300mV ±48mV ±96mV 480mV _{PP} 0.5 3.3V 12V 15V 5A 2x 75W 2x75W ±12mV ±24mV 240mV _{PP} 0.75 23.2V 24V 24.7V 3.125A 2x 75W 2x75W ±10mV ±24mV ±48mV 480mV _{PP} 0.75 4.5V 12W 15V 25A 300W 375W ±100mV ±24mV ±4

Note 3. Can only be used with NEVO+600 chassis with date codes from 2048 onwards. eg. 2048C080000 can use A2 or A3 module, 2047C089999 cannot use A2 or A3

Note 3. Can only be used with NEVO+600 chassis with date codes from 2048 onwards. eg. 2048C080000 can use A2 or A3 module, 2047C089999 cannot use A2 or A3 module.

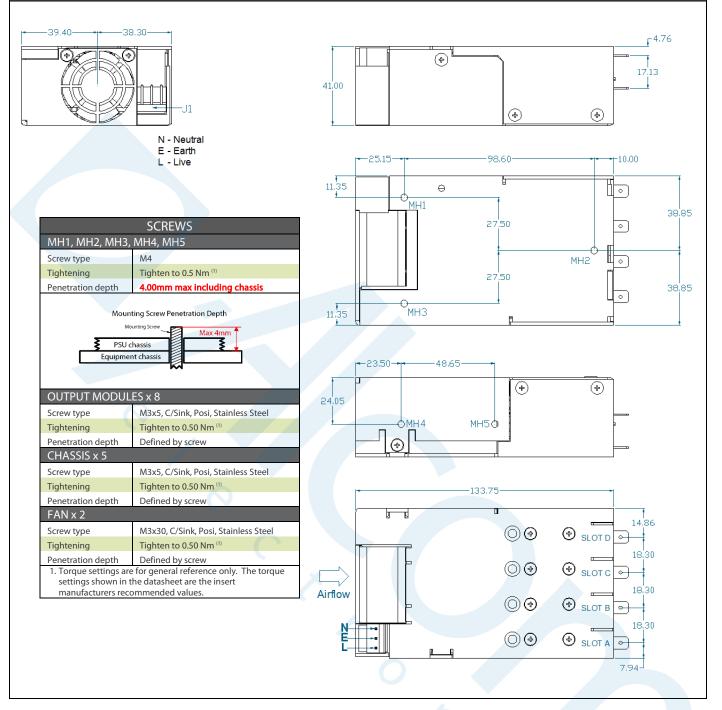
SAFETY SPECIFICATIONS						
Parameter	Details	Max	Units			
	Input to Output (2 MOPP). Do not perform test on assembled unit ⁽¹⁾	4000	V _{AC}			
	Input to Chassis (1 MOPP)	1500	V _{AC}			
Isolation Voltages	Global signals (J2) to Output/Chassis	250	V _{DC}			
	Output to Output/Chassis (Standard modules)	250	V _{DC}			
Earth Leakage Current	Normal condition, 264Vac, 63Hz, 25°C	300	uA			
Touch Leakage Current	Standard modules NC/SFC	20/200	uA			
Patient Leakage Current	Standard modules 264Vac, 63Hz, 25°C NC/SFC ⁽²⁾		uA			
Note 1. Testing an assembled u	init to 4000V _{AC} may cause damage. Please refer to application note (APN-002) on Vox Power website or contact Vo	x Power repres	sentative.			
Note 2. Not Applicable						

INSTALLATION SPECIFICATIONS							
Parameter	Details	Parameter	Details				
Equipment class	I	Flammability Rating	94V-2				
Overvoltage category	II	Ingress protection rating	IP10				
Material Group	IIIb (indoor use only)	ROHS compliance	2011/65/EU				
Pollution degree	2	Intended usage environment	Home Healthcare				

		ENVIRONMENTAL	SPECIFICA	TIONS				
. .				Non-Op	erational	Oper	rational	
Parameter	Details			Min	Max	Min	Max	- Units
Air Temperature	Operational limits subject to	appropriate de-ratings		-40	+85	-20	70	°C
Humidity Altitude	Relative, non-condensing			5 -200	95 5000	5 -200	95 3000	% m
Air Pressure				52	106	69	106	kPa
Noise Level	Variable. Measured 1m from			-	-	36	60	dBA
Shock Vibration	3000 bumps at 10G (16ms) h	half sine wave 20G for 15min in 3 axes random vibrati	on					
VISIALION	1.50 10 to 2001/2 sinc wave,	ELECTROMAGNETIC CON			NC			
Phenomenon Radiated emissions	aloctric field	Basic EMC Standard EN55011/22, FCC			t Details B compliant			
Conducted emissions	,	EN55011/22, FCC EN55011/22, FCC part 15, Cl	SPR 22/11		B compliant			
Harmonic Distortio		IEC61000-3-2		Com	pliant			
Flicker & Fluctuatio	n	IEC61000-3-3			pliant			
		ELECTROMAGNETIC CON	IPLIANCE	– IMMUNI	TY			
Phenomenon		Basic EMC Standard	Test	Details				
Electrostatic discha	J.	IEC61000-4-2		evel 4: 15kV ai				
Radiated RF EM field	ds m RF wireless communications	IEC61000-4-3 IEC61000-4-3				,	e AM 80% 1kH:	Ζ
equipment	Whereas communications		Test l	evels as per IE	C60601-1-2:20	14 Table 9		
Electrical Fast Trans	sients/bursts	IEC61000-4-4			ower, 1kV I/O)	5kHz(ed3) &	100kHz(ed4)	
Surges	ances induced by RF fields	IEC61000-4-5 IEC61000-4-6		evel 3: 1kV L-1	N, 2kV L-E 15 to 80Mhz si	ne wave AM	80% 1kHz	
Power Frequency N		IEC61000-4-8		evel 4: 30A/m			20/011012	
/oltage Dips		IEC61000-4-11& SEMI-F47-02					tinuous (Criter	
/oltage interruptio	ins	IEC61000-4-11			(Criterion A at 3 s per IEC60601		iterion B at 100 riterion B)	V)
8		performance or loss of function.	0702.	50, 500 Cycle d.	2 201 12 00001	. 2.2017 (C		
Ci	riterion B = Temporary degrada	ation of performance or loss of function			ction is self-ree	coverable.		
-				to recover.				
	riterion C = Temporary loss of f	unction is allowed but requires operato o 240V). Line deratings applied where a						
	riterion C = Temporary loss of f	o 240V). Line deratings applied where a	ppropriate.	-	_	_	_	
2. Te	riterion C = Temporary loss of f	o 240V). Line deratings applied where a AGENCY AP	ppropriate.				Filo	
2. Te Standard	riterion C = Temporary loss of f ested at nominal range (100V to	o 240V). Line deratings applied where a AGENCY AP Details	PROVALS	ements for ha	ic safety and e	scential	File	
2. Te Standard EC 60601-1:2005 +	riterion C = Temporary loss of f	o 240V). Line deratings applied where a AGENCY AP	PROVALS	ements for bas	sic safety and e	ssential	File UL: E31	6486
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + 7	riterion C = Temporary loss of f ested at nominal range (100V to	o 240V). Line deratings applied where a AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0	ippropriate. PROVALS General require					6486
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + 7	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007	o 240V). Line deratings applied where a AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance	ppropriate. PROVALS General require General require	ements for bas	sic safety and e	ssential		6486
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 +	o 240V). Line deratings applied where a AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0	ppropriate. PROVALS General require General require	ements for bas	sic safety and e	ssential		6486
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008)	o 240V). Line deratings applied where a AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 Performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General require General Require	ements for bas rements for Ba	sic safety and e	essential Essential		6486
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 +	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General require General Require	ements for bas rements for Ba	sic safety and e	essential Essential		6486
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10)	o 240V). Line deratings applied where a AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 Performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General require General Require	ements for bas rements for Ba	sic safety and e	essential Essential		6486
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU	ppropriate. PROVALS General require General require General Require	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10)	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU	ppropriate. PROVALS General require General require General Require	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential		
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General requir General requir General Requir General Requir 0.90 0.88	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re Typi	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General require General Require General Require 0.90 0.88 0.86	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General Require General Require General Require 0.90 0.88 0.86 0.84	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General Require General Require General Require 0.90 0.88 0.86 0.84	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance	ppropriate. PROVALS General require General Require General Require General Require 0.90 0.88 0.86 0.84	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	essential Essential Essential	UL: E31	
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power)	PROVALS General require General require General Require General Require General Require 0.90 0.88 0.86 0.84 0.82 0.80 0.84 0.82 0.84 0.82 0.80 0.76	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	Essential Essent	y (220Vrm	s)
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU	PROVALS General require General General Require General General Require General General Genera	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	Essential Essential Essential Essential Essential	UL: E31	S)
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.86 0.84 0.80 0.82 0.82 0.80	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power)	PROVALS General require General General Require General General Require General General Genera	ements for bas rements for Ba rements for Ba	sic safety and e sic Safety and I sic Safety and I	Essential Essential Essential Essential Essential	y (220Vrm	s)
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + / A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.84 0.86 0.84 0.82 0.82 0.82 0.82 0.82	riterion C = Temporary loss of f ested at nominal range (100V to -CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request ical Line Efficiency (N	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OPA2 OPA3	PROVALS General require General General Require General General Genera	ements for base	sic safety and e sic safety and l sic Safety and l	essential Essential Essential	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-1:2005 + A1:2012 EXAN/CSA-C22.2 No EXAN/CSA-C22.2 NO EXAN/C	riterion C = Temporary loss of f ested at nominal range (100V to -CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request ical Line Efficiency (N	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OPA2 OPA3 0 200 220 240 260	PROVALS General require General General Require General General Genera	ements for base	cal Load I	Essential Essential Efficienc 300 350	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + / A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.84 0.86 0.84 0.82 0.82 0.82 0.82 0.82	riterion C = Temporary loss of f ested at nominal range (100V to -CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request ical Line Efficiency (N	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OPA2 OPA3 0 200 220 240 260	PROVALS General require General General Require General General Genera	ements for base	sic safety and e sic safety and l sic Safety and l	Essential Essential Efficienc 300 350	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-11:2005 + + A1:2012 EN60601-11:2006 + / A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.84 0.84 0.82 0.82 0.82 0.82 0.82	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General General Require General General Genera	ements for base	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + / A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.84 0.86 0.84 0.82 0.82 0.82 0.82 0.82	riterion C = Temporary loss of f ested at nominal range (100V to -CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 1-1 (2005 + C1:09 + A2:10) eport available on request ical Line Efficiency (N	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General General Require General General Genera	ements for base ements for Ba	cal Load I	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.90 0.88 0.86 0.86 0.84 0.80 0.78 0.80 0.78 0.1	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.90 0.88 0.86 0.84 0.82 0.80 0.88 0.86 0.84 0.82 0.80 0.78 0.76 0.78 0.76 0.72 0.70 0.68 0.66	ements for base rements for Ba	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.80 0.88 0.86 0.84 0.86 0.84 0.86 0.84 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.78 80 1	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.8	ements for base rements for Base Typi	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.80 0.88 0.86 0.84 0.86 0.84 0.86 0.84 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.78 80 1	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.8	ements for base rements for Ba	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.80 0.88 0.86 0.84 0.86 0.84 0.86 0.84 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.78 80 1	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.8	ements for base rements for Base Typi	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard IEC 60601-1:2005 + + A1:2012 EN60601-1:2006 + A A12:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 CE MARK CB certificate and re 0.80 0.88 0.86 0.84 0.86 0.84 0.86 0.84 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.78 80 1	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.8	ements for base rements for Ba	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.90 0.88 0.86 0.84 0.82 0.80 0.78 0.76 0.78 0.76 0.78 0.76 0.74 0.72 0.70 0.68 0.66 0.66 0.66 0.00 0.68 0.66 0.74 0.72 0.70 0.68 0.66 0.74 0.72 0.70 0.68 0.66 0.60 0.68 0.66 0.60 0.68 0.66 0.60 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.7	ements for base rements for Base rements for Base Typi	sic Safety and e sic Safety and I sic Safety and I cal Load I b 150 200 250 Output P	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3
2. Te Standard EC 60601-1:2005 + A1:2012 N60601-1:2006 + A1:2014 CAN/CSA-C22.2 No ANSI/AAMI ES6060 E MARK B certificate and re 0.90 0.88 0.86 0.84 0.86 0.88 0.86 0.88 0.86 0.88 0.86 0.78 80 1 0.78 80 1	riterion C = Temporary loss of f ested at nominal range (100V to -CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 0. 60601-1 (2008) 11-1 (2005 + C1:09 + A2:10) eport available on request ical Line Efficiency (N 100 120 140 160 180 Input Voltage	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OPA2 OPA3 D 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.8	ements for base rements for Ba	sic safety and e sic safety and l sic safety and l cal Load I b 150 200 250 Output P Tempera	essential Essent	UL: E31	S) OP2 OP4 OPA3 550 600
2. Te	riterion C = Temporary loss of f ested at nominal range (100V to - CORR1 2006 + CORR2: 2007 A11:2011 + A1:2013 + 	AGENCY AP Details Medical electrical equipment Part 1: 0 performance Medical electrical equipment Part 1: 0 performance Medical Electrical Equipment Part 1: 0 Performance LVD 2014/35/EU, EMC 2014/30/EU Maximum power) OP1 OP2 OP3 OP4 OP4 OPA2 OPA2 OPA3 O 200 220 240 260 (Vrms)	PROVALS General require General require General Require General Require General Require General Require General Require 0.90 0.88 0.86 0.84 0.82 0.80 0.88 0.86 0.84 0.82 0.80 0.78 0.76 0.78 0.76 0.76 0.76 0.76 0.76 0.70 0.68 0.66 0.66 0.66 0.66 0.60 0.68 0.66 0.60 0.68 0.66 0.60 0.68 0.60 0.68 0.60 0.68 0.60 0.74 0.72 0.70 0.70 0.74 0.72 0.70 0.74 0.74 0.74 0.74 0.74 0.74 0.74	ements for base rements for Ba	sic safety and e sic safety and l sic safety and l cal Load I b 150 200 250 Output P Tempera	Essential Essential Efficienc 300 350 Power (W	UL: E31	S) OP2 OP4 OPA3

Page 3 of 5 Vox Power Limited | Unit 2, Red Cow Interchange Estate, Ballymount, Dublin 22, D22 Y8H2, Ireland | T +353 1 4591161 | www.vox-power.com

MECHANICAL DIMENSIONS AND MOUNTING SCREWS



CONNECTORS



PINOUTS						
J1						
Circuit	Details					
1	Live					
2	Earth					
3	Neutral					
	J2					
Circuit	Details					
1	Power good	Slot A				
2	Inhibit	SIOLA				
3	Power good	Slot B				
4	Inhibit	SIOUB				
5	Power good	Slot C				
6	Inhibit	SIOLC				
7	Power good	Slot D				
8	Inhibit	SIOUD				
9	Global inhibit					
10	ACOK					
11	+5V 1A bias supply					
12	COM					
	J5 ⁽⁴⁾					

Details

Current control / share / out

+5V 10mA local bias supply

Circuit

3

4

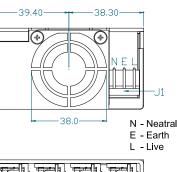
5

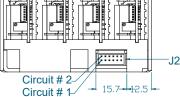
-Sense

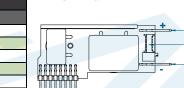
+Sense

COM

Voltage control











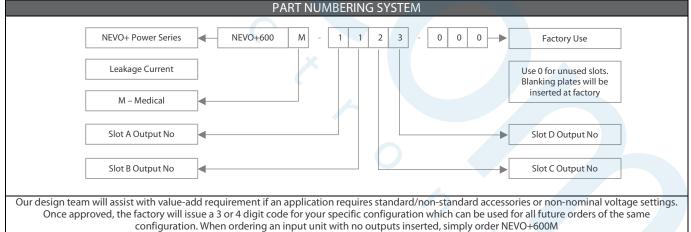
REF.	DETAILS	MANUFACTURER	HOUSING	TERMINAL				
J1	MAINS INPUT: 3 Pin, 5.08mm, with Friction Lock, 18-24 AWG	MOLEX	10013036	0008701031				
J2	GLOBAL SIGNALS: 12 Pin, 2mm, without Friction Lock, 24-30 AWG	MOLEX	511101251	0503948051				
J3/4 ⁽¹⁾	OUTPUT POWER TERMINAL: TAB SIZE 6.35mmx0.8mm	VARIOUS		VARIOUS				
J5	OUTPUT SIGNALS: 6 Pin, 1.25mm, with Friction lock, 28-32 AWG	MOLEX	0510210600	0500588000				
2. Direct e								

.13

-J5

14

4. Pinout is for single output types only



All specifications are believed to be correct at time of publishing. Vox Power Ltd reserves the right to make changes to any of its products and to change or improve any part of the specification, electrical or mechanical design or manufacturing process without notice. Vox Power Ltd does not assume any liability arising out of the use or application of any of its products and of any information to the maximum extent permitted by law. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any products of Vox Power Ltd. VOX POWER LTD DISCLAIMS ALL WARRANTIES AND REPRESENTATIONS OF ANY KIND WHETHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF SUITABILITY, FITNESS FOR PURPOSE, MERCHANTABILITY AND NONINFRINGEMENT.

Please consult your local distributor or Vox Power directly to ensure that you have the latest revision before using the product and refer to the latest relevant user manual for further information relating to the use of the product. Vox Power Ltd products are not intended for use in connection with life support systems, human implantations, nuclear facilities or systems, aircraft, spacecraft, military or naval missile, ground support or control equipment used for the purpose of guidance navigation or direction of any aircraft, spacecraft or military or naval missile or any other application where product failure could lead to loss of life or catastrophic property damage. The user will hold Vox Power Ltd harmless from any loss, cost or damage resulting from its breach of these provisions

Vox Power Limited | Unit 2, Red Cow Interchange Estate, Ballymount, Dublin 22, D22 Y8H2, Ireland | T +353 1 4591161 | www.vox-power.com Page 5 of 5



DOC-DTS-002-08, NEVO+600M Medical Datasheet Singel 3 | B-2550 Kontich | Belgium | Tel. +32 (0)3 458 30 33 | info@alcom.be | www.alcom.be Rivium 1e straat 52 | 2909 LE Capelle aan den Ijssel | The Netherlands | Tel. +31 (0)10 288 25 00 | info@alcom.nl | www.alcom.nl