medical

SINPRO

MEU600 series

V4.1

600W Enclosure Type Power Supply

The MEU600 series of medical grade AC-DC power supplies provides the compact form factor and high efficiency that the marketplace demands. They are capable of delivering the maximum of continuous output power and operating temperature. The series provides a steady 600 W of regulated DC power through the full 90 to 264 VAC input range, all in a 3.94" X 8.5" X 1.57" form factor. All models meet FCC Part-18, CISPR-11 and EN55011 class B emission Limits, IEC 60601-1 are designed to comply with UL/cUL, TUV T-mark and conformity assessment in CE marking. All units pass burn-in test at full load condition.

FEATURES:

* Wide Operating Voltage, 90 to 264VAC, 47 to 63 Hz
* Input to Output: 2MOPP
* High ESD Immunity
* Active Power Factor Correction
* 5V Standby Output(Optional)
* Protection: OVP, OLP, OTP, SCP
* Size: 3.94"x8.5"x1.57"
* 3-Year Warranty

APPLICATIONS:

* Test and Measurement Equipment
* Laboratory Equipment
* Ultrasound System
* Video Wall Display
* Telecommunications
* In Vitro Diagnostic Devices
* Industrial Control and Automation
* Medical Applications

APPROVALS:

GENERAL SPECIFICATION:

* **Cooling**: Forced Air. Convection
* **Protection Classes**: Class I
* **Safety**: IEC60601-1 Edition3.2, ANSI/AAMI ES60601-1, CAN/CSAC22.2 NO.60601-1:14, EN60601-1

Electrical Characteristics:

Characteristic	Condition	Min.	Typ.	Max.	Unit
Safety Approval Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Input Operate Voltage Range	Detail to See Fig.1	90		264	VAC
Input Frequency	Sine Wave	47		63	Hz
Power Factor Correction		0.92		1	
Output Power Range	See Rating Chart			600	W
Low Line Input Current	Full Load, Vin=100VAC		8		A
High Line Input Current	Full Load, Vin=240VAC		4		A
Low Line Input Inrush Current	Full Load, 25°C, Cool Start, Vin=115VAC			41	A
High Line Input Inrush Current	Full Load, 25°C, Cool Start, Vin=230VAC			82	A
Safety Ground Leakage Current	Vin=264VAC, Fin=60Hz		0.25		mA
Efficiency	Full Load, Vin=230VAC, Detail to See Rating Chart	See Rating Chart			
Line Regulation	Full Load, Vin=100~120VAC or 200~240VAC			1	%
Short Circuit Protection	Vin=264VAC, Fin=60Hz	See Rating Chart			
Over Temperature Protection	Main Nominal Output, Restarting after Power Unit Cool Down				
Over Voltage Protection	Main Nominal Output, Latch Protection	112		132	%
Main Output(Vo1) Over Load Protection	Recovers Automatically	105		150	%
5Vsb(Vo2) Over Load Protection	Recovers Automatically After Fault Condition is Removed	105		150	%
Hold-Up Time	Main Nominal Output 70% Full Load, Vin=230VAC	See Rating Chart			
Insulation Resistance		50			MΩ
Temperature Coefficient	All Condition			±0.04	%/°C
Dielectric Withstanding Voltage (P-S)	Primary to Secondary, Limit Current <10mA	4000			VAC
Dielectric Withstanding Voltage (P-G)	Primary to PE, Limit Current <10mA	1500			VAC
Dielectric Withstanding Voltage (S-G)	Secondary to PE, Limit Current <20mA	1500			VAC
EMC Emission	Compliance to EN55011, EN55032	B			VAC

Environmental:

Characteristic	Condition	Min.	Typ.	Max.	Unit
Operating Temperature	Detail to See Fig.2 (Derate Linearly from 100% Load at 50°C to 50% Load at 70°C)	-40		70	°C
Storage Temperature	10 ~ 95% RH	-40		85	°C
Operating Humidity	Non-Condensing	0		95%	RH
Storage Humidity		0		95%	RH
Mean Time Between Failure	Operating Temperature at 25°C,Nominal Line , Calculated per MIL-HDBK-217F	150k			h
Operating Altitude (Elevation)				4000	m
Vibration	10 ~ 500Hz, 10min./1cycle, 60min. Each Along X, Y, Z Axes			5	G
Surge Voltage	Line-Neutral			1	kV
Surge Voltage	Line-PE & Neutral-PE			2	kV

2023.11

SPECIFICATION NOTE :

1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
5. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz (Measured at the output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor).
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.

PIN CHART:

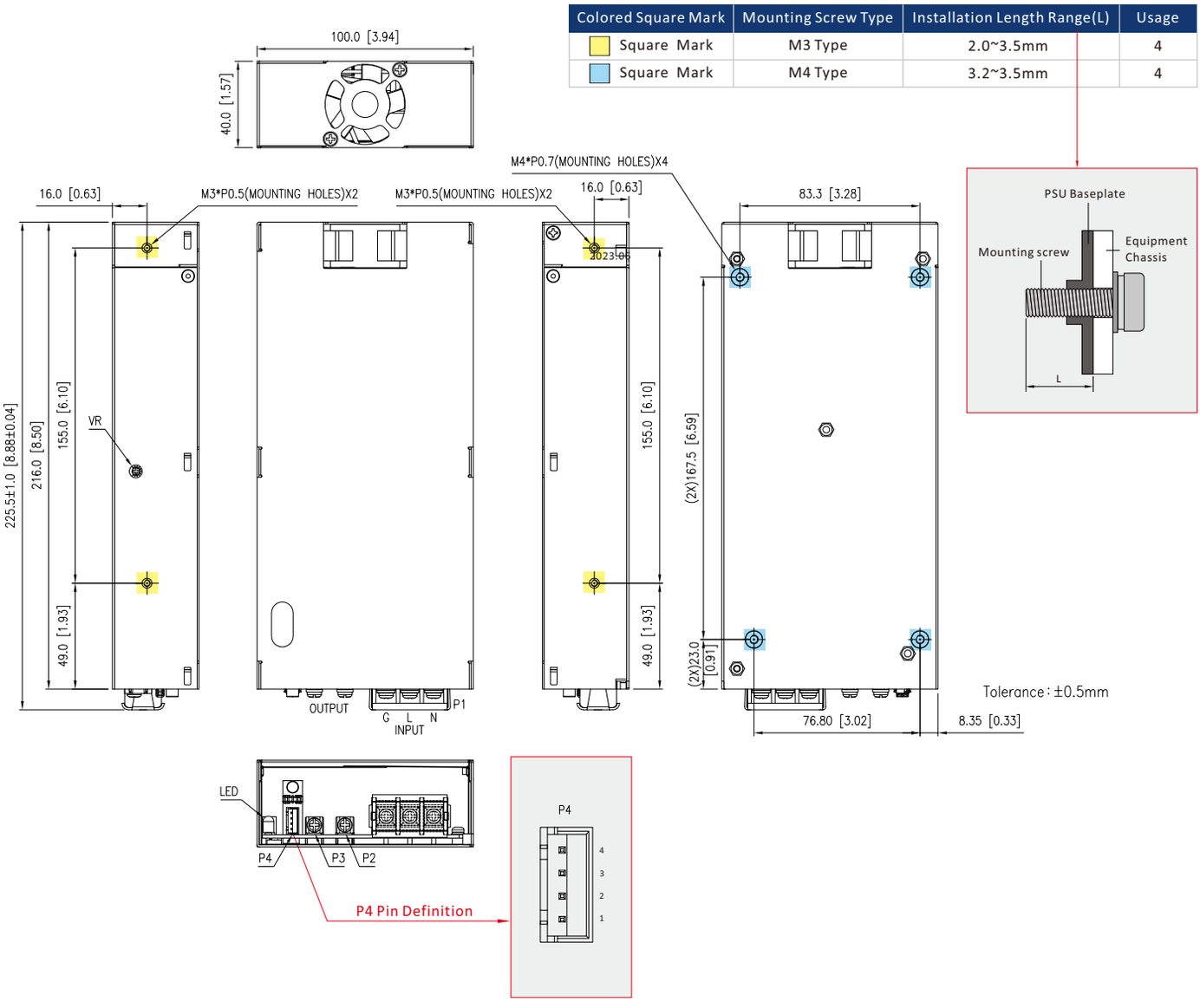
	Connector Definition	Connector Type	Pin chart	Pin
INPUT	P1	DECA#T36-EO3103	NEUTRAL	N
			LINE	L
			PROTECTION EARTH	G
OUTPUT	P2	DINKLE#P-810W	Vo1(+)	P2
	P3	DINKLE#P-810W	Vo1(-)	P3
5V STB (Optional)	P4	JOINT TECH #A2501WV-04P1	PFD	1
			RTN1	2
			Remote ON/OFF	3
			Vo2(+5V)	4

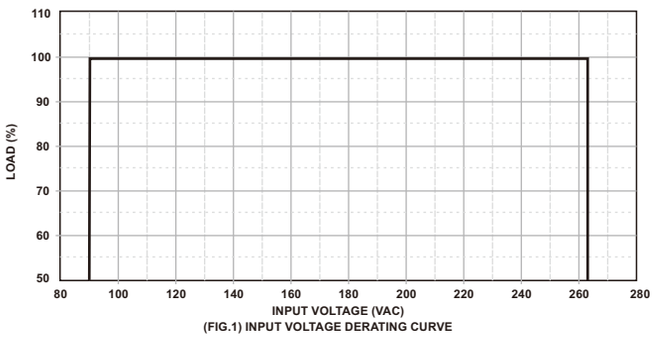
MECHANICAL DIMENSIONS: (UNIT: mm [inch])

NET WEIGHT: 1150 g approx.

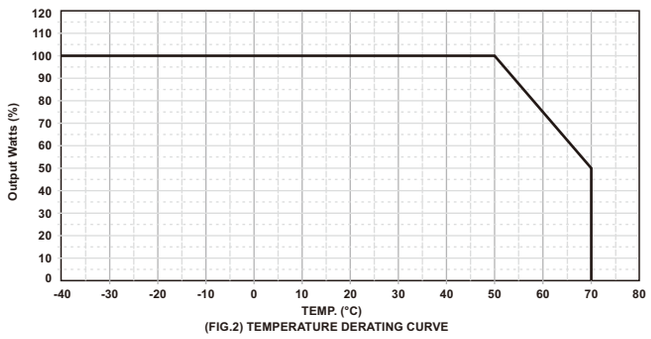
MOUNTING SCREW LENGTH REQUIREMENTS:

Colored Square Mark	Mounting Screw Type	Installation Length Range(L)	Usage
Square Mark	M3 Type	2.0~3.5mm	4
Square Mark	M4 Type	3.2~3.5mm	4



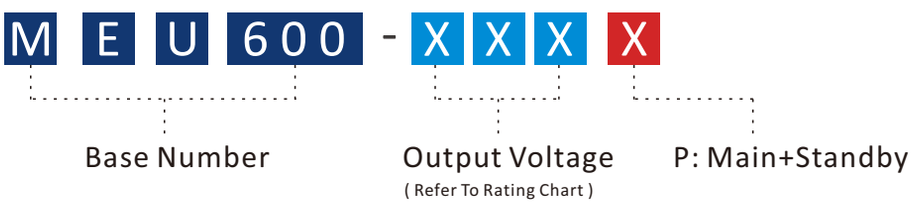


(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE

MODEL NAME:



RATING CHART:

MODEL NO.	Main Output Chart(Vo1)									
	Vo1	Adjustment Regulation	Vo1 Regulation	Io	Max Pout	Hold-Up Time	Ripple MAX	Typ. Efficiency	Typ. No Load Consumption	Short Circuit Protection
	(VDC)	(%)	(%)	(A)	(W)	(ms)	(mVp-p)	(%)	(W)	
MEU600-108	24	±2	±3	25.00	600	16	240	89	<5	Auto Recovery
MEU600-111	48	±2	±2	12.50	600	16	480	91	<5	Auto Recovery
MEU600-108P	24	±2	±3	20.48A~ 24.58A	590	16	240	88.5	0.8 (Standby Mode)	Latch Off
MEU600-111P	48	±2	±2	10.24A~ 12.29A	590	16	480	90	0.8 (Standby Mode)	Latch Off

MODEL NO.	Standby Output Chart(Vo2)					
	Vo2	Vo2 Regulation	Io MAX	Remote ON/OFF Control	Short Circuit Protection	Ripple MAX
	(VDC)	(%)	(A)			
MEU600-108P	5	±5	2	Positive logic (3.3~5V)	Auto Recovery	60mV
MEU600-111P	5	±5	2	Positive logic (3.3~5V)	Auto Recovery	60mV

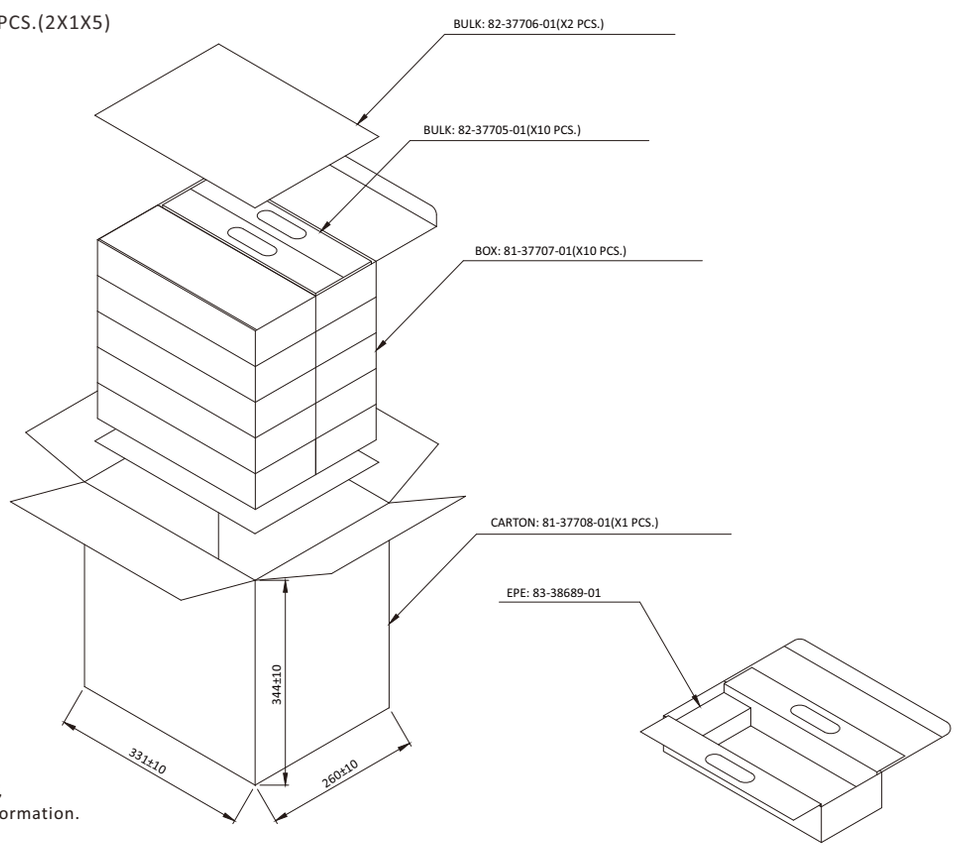
EMC Specifications:

EMISSION		
ITEM	STANDARD	RESULT
Conducted	EN55011,EN55032	CLASS B
Radiated	EN55011,EN55032	CLASS B
Harmonics	EN61000-3-2	CLASS A
Flicker	EN61000-3-3	PASS

	ITEM	STANDARD	RESULT	CRITERION
IMMUNITY	ESD	EN61000-4-2	15KV air discharge, 8KV contact discharge	A
	RS	EN61000-4-3	PASS	A
	EFT	EN61000-4-4	Power line 2KV,100KHz	A
	SURGE	EN61000-4-5	1KV line to line 2KV line to PE	A
	CS	EN61000-4-6	3Vrms, 6Vrms	A
	PFMF	EN61000-4-8	30A/m,50Hz	A
	Voltage dips	EN61000-4-11	I) 100% reduction for 0.5 cycle at 50Hz	A
			ii) 0% reduction for 1 cycle at 50Hz	A
			iii) 30% reduction for 25/30 cycles at 50/60Hz	A
	Voltage interruptions	EN61000-4-11	100% reduction for 250/300 cycles at 50/60Hz	B

STANDARD PACKAGING : (UNIT: mm)

* **Power Supplies per Box (full box)**: 10 PCS.(2X1X5)
* **Box Dimensions**: L33*W26*H34 cm
* **Gross Weight (full box)**: 13.10 KGS
* **Packaging Part No**: 84-38694-02



* Note the above packing is for reference only, please contact sales for a confirm packing information.