



ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

MEDICAL POWER SUPPLY
SINGLE CHANNEL OUTPUT
150 WATTS
UNIVERSAL INPUT

MES SERIES



General Description

Application

Broad needs

Input

Input Voltage Range: AC85~264V (DC110~370V)

Frequency: 47~63Hz or DC

Rated input current: 2A at 100V, 1A at 200V

Phase: Single

Inrush Current: *1 14A at 100V, 28A at 200V

Features

1. Medical Grade Power Supply with isolation resistance withstanding 4600Vac
2. High efficiency
3. High derating shows 100% at 50° Celsius
4. Over-current protection
5. Over-voltage protection

Options

Remote Control option available



ETA USA

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Output Characteristic	Unit	Models			
		MES150-05	MES150-12	MES150-15	MES150-24
Output Voltage	Vdc	5.0	12	15	24
Output Current	A	30	13	10	6.5
Voltage Adjust Range	V	4.50-5.50	10.8-13.2	13.5-16.5	21.6-26.4
Ripple	mVpp *4	80	120		
	mVpp *5	140	160		
Ripple & Noise(max)	mVpp *4	120	150		
	mVpp *5	160	180		
Rise time	mS	30 mS typical			
Hold up time	mS	500 mS typical			
Regulation					
a. Line Regulation [max]	mV	20	48	60	96
b. Load Regulation	mV	40	100	120	150
c. Temperature Coefficient	°C *4	50	120	150	240
	°C *5	60	150	180	290
d. Drift(maximum)	mV	20	48	60	96
Efficiency *1	% *6	84%	86%		
	% *7	86%	88%		
Power Factor *1		0.99 at 100Vin 0.93 at 200Vin			

Conditions:

- *1 Rated input and Rated output
- *2 at Output current quick change 25% to 75%
- *3 At 100% load (convection cooling)
- *4 From 0~+50°C
- *5 From -10~0°C
- *6 at 100V in
- *7 at 200V in





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Environmental Specification	
Operating Temperature*3	-10 to +71 °C (with derating)
Operating Humidity	20~90% RH no condensation
Storage Temperature	-30 to 85°C
Storage Humidity	10~95% RH no condensation
Isolation Resistance	Primary-Secondary AC600V for 1minute Primary-Frame Ground AC500V for 1minute Secondary-Frame Ground AC1,000V for 1minute *Sensory Current: (DC 500V 100Mohm 10mA minimum)
Vibration	10-55Hz:19.6m/s ² , 30 minute cycle each along X,Y,Z axes (2G)
Shock	196 m/s ² on x,y,z axis (20G)
Cooling	Convection
Environmental Agencies	
Line Conducted Noise [EMI]	FCC part 15 Class A, VCCI-A CISPR22 class A, EB55022 class A complied
Noise immunity	IEC61000-4-2 (Level 2, 3), -3 (Level 3), -4 (Level 3), -5 (level 4), -6 (level 3), -8 (level 4), -11 complied
Safety	UL60950-1, C-UL(CSA60950-1), EN60601-1, CE marking pending
Harmonics current limit	IEC 61000-3-2 Complied
Other	SEMI F47-0200 Complied with (AC200Vin)
Function/Protection	
Over current Protection	Vertical current limiting. Automatic return
Over voltage Protection	Can operate at 125~150% of rated output, available
Remote Sense	Available, optional (External signal input required)
Remote Control	Available, optional (External signal input required)
Series Operation	Available
Parallel Operation	Not Available (N+1 operation is applicable by diode-OR)
Driving Indicator	Power Source on LED indication; Green
Mechanical	
Dimension [mm]	37.5 x 81.5 x 164.5 without screw terminal
Weight [g] (typical)	600 max

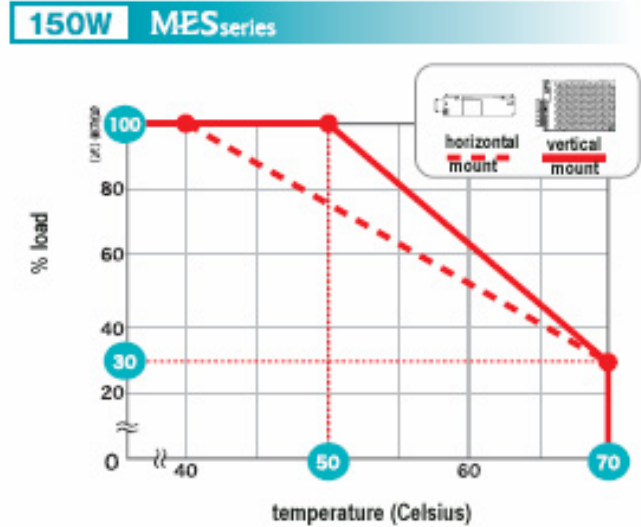
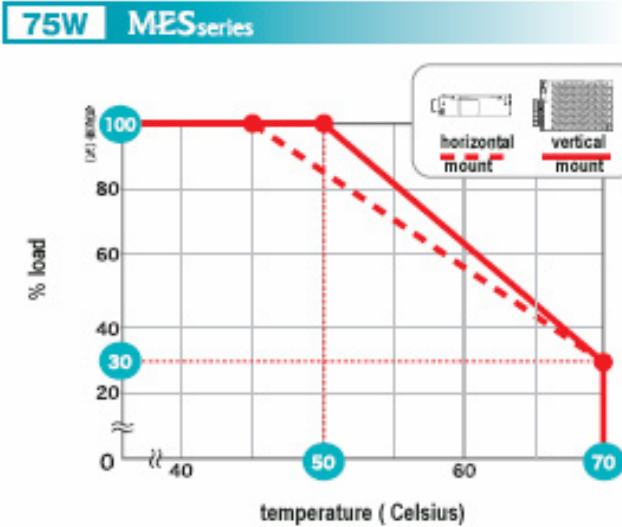




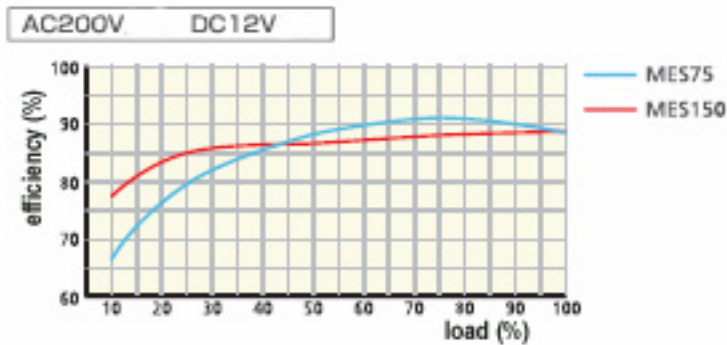
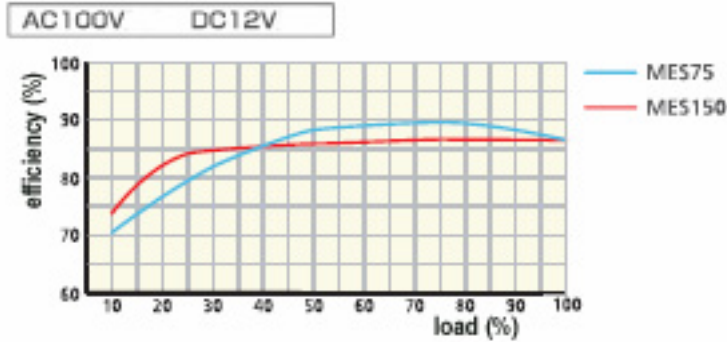
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Derating Curves



Efficiency Curves

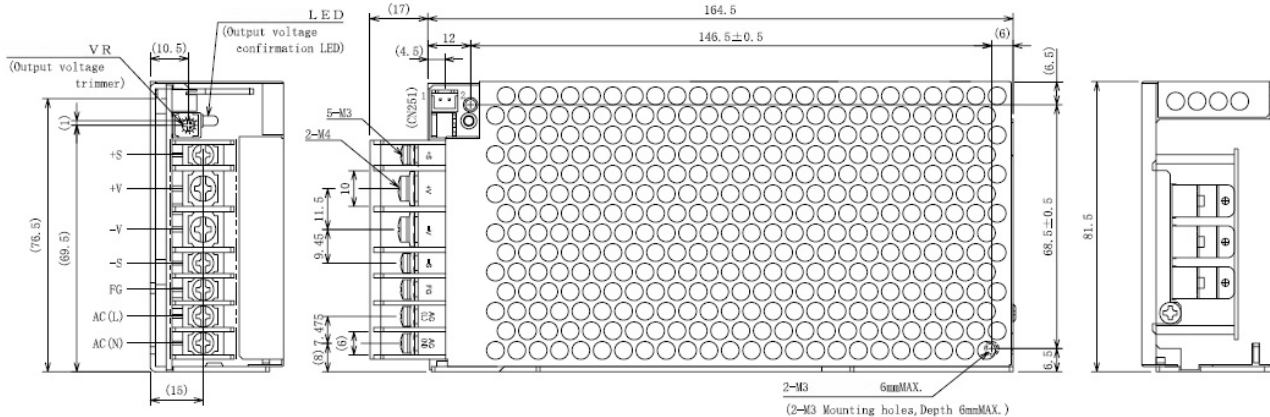




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HIGH QUALITY SWITCHING POWER SUPPLIES

Mechanical Drawings

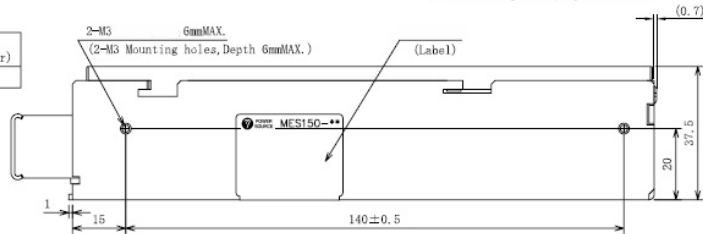


(Acceptable connector)

(Socket housing)	(Terminal pins)	(Manufacturer)
CN251	XHF-2	SXH-001T-P0.6 JST

(Function)

No.	CN251
1	RC+
2	RC-



- Unit: mm
- (Unit) ± 1
- (General tolerance)
- 550g MAX.
- (Mass)
- 0.49N·m(5kgf·cm)MAX.
- (Chassis tightening torque)
- M3 0.6N·m(6.1kgf·cm)MAX.
- M4 1.4N·m(14.3kgf·cm)MAX.
- (Terminal block tightening torque)

(Option) (Remote control) (R)
 *CN251
 (CN251 is equipped only with -R models)

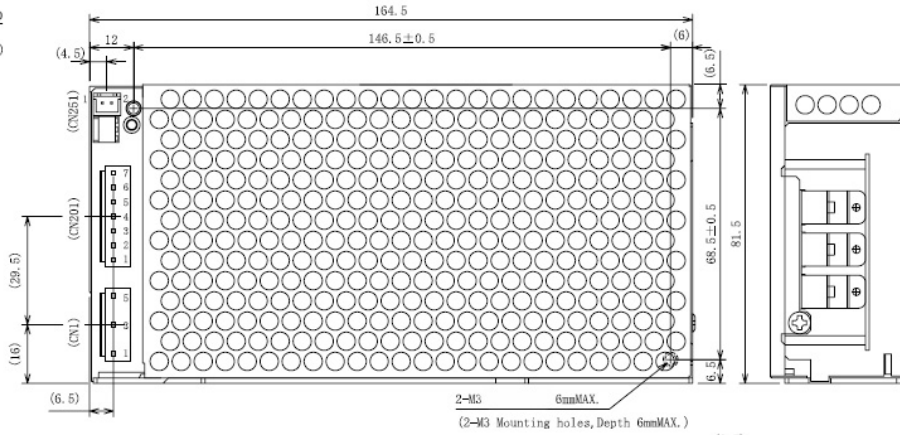
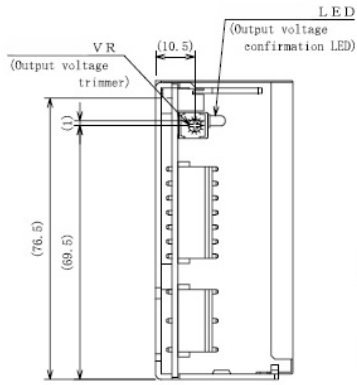




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Mechanical Drawings with connector

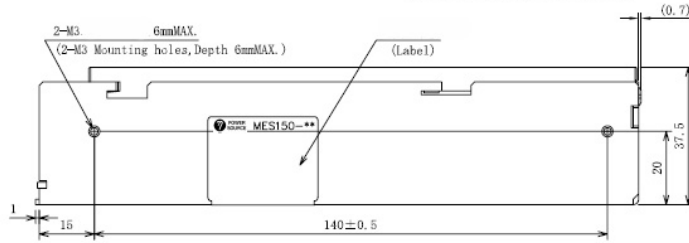


(Acceptable connector)

	(Socket housing)	(Terminal pins)	(Manufacturer)
CN1	VHR-5N	SVH-21T-P1.1	JST
CN201	VHR-7N	SVH-21T-P1.1	JST
CN251	XHP-2	SXH-001T-P0.6	JST

(Function)

No.	CN1	No.	CN201	No.	CN251
1	ACin(N)	1	-S	1	RC+
3	ACin(L)	2	-Vout	2	RC-
5	F G	3	-Vout		
		4	+Vout		
		5	+Vout		
		6	+Vout		
		7	+S		



- mm
- (Unit)
- (General tolerance) ±1
- (Mass) 550g MAX.
- (Chassis tightening torque) 0.49N·m < 5kgf·cm MAX.

(Option) (Remote control) (R)
 *CN251 (CN251 is equipped only with -R models)

