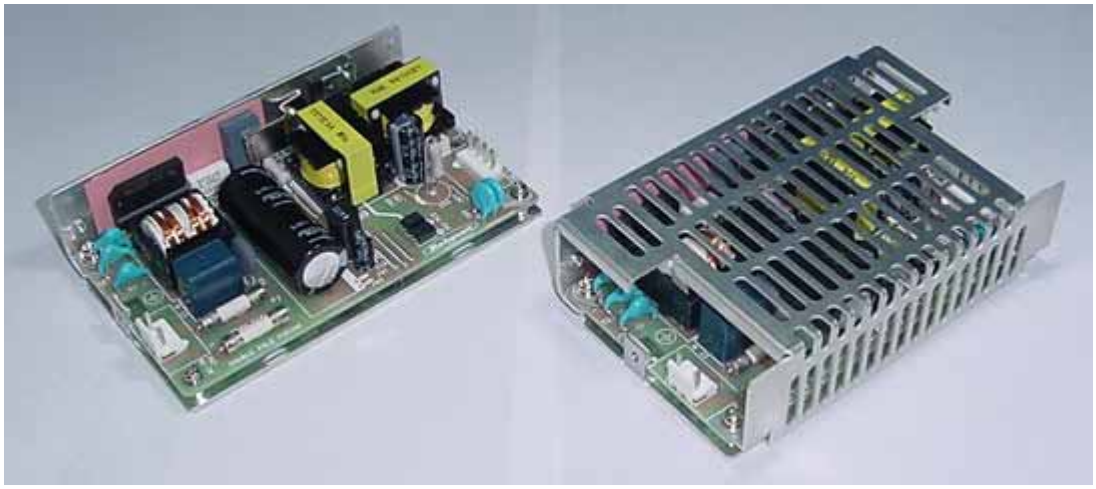
MSW60



FEATURES

*85 to 264VAC universal input
*High efficiency up to 85%
*Low EMI, meeting FCC B, CISPR B
*Less then 0.3mA leakage
*Thin type below 1U
*RoHS correspond

SAFETY STANDARDS

UL60601-1 Recognized
CSA22.2 No.60601.1 Certified (cUL)
EN60601-1 (NEMKO Certified)
CEmark(LVDonly)

APPLICATIONS

*Madical equipment
* Safety systems
*Dental systems
*Control equipment
*Microprocessor systems
*Monitoring equipment
*Peak Loads (for Motor Drive, Lamp) *6

MSW60 SPECIFICATIONS

	ITEM		MSW60-12	MSW60-15	MSW60-24	MSW60-36	MSW60-48
1	Rated output DC voltage		12V	15 V	24V	36V	48V
2	Rated output DC current (Peak *6)		5.0A(-)	4.0A(-)	2.5A(3.8A)	1.7A(2.5A)	1.3A(1.9A)
3	Maximum output power (Peak *6)		60.0W(-)	60.0W(-)	60.0W(91.2W)	61.2W(90.0W)	62.4W(91.2W)
4	Adjustable voltage range	*1	11.4 ~ 12.6V	14.3 ~ 15.8V	22.8 ~ 25.2V	34.2 ~ 37.8V	45.6 ~ 50.4V
5	Efficiency (120/230VAC, TYP)	*1	81% / 76%	82% / 77%	83% / 78%	84% / 79%	85% / 80%
6	Maximum ripple noise		150mVpp	150mVpp	150mVpp	250mVpp	250mVpp
7	Over current protection	*3	5.3A ~	4.2A ~	4.0A ~	2.6A ~	2.0A ~
8	Over voltage protection	*4	13.8V ~	17.3V ~	27.6V ~	41.4V ~	55.2V ~
9	Input voltage range		85V ~ 264V				
10	Input frequency range		47Hz ~ 63Hz				
11	Input current	*1	1.6A (100VAC), 0.9A(230VAC)				
12	Inrush current	*2	20Apk MAX (120VAC), 40Apk MAX (240VAC)				
13	Hold-up time	*5	20msMIN				

Notes

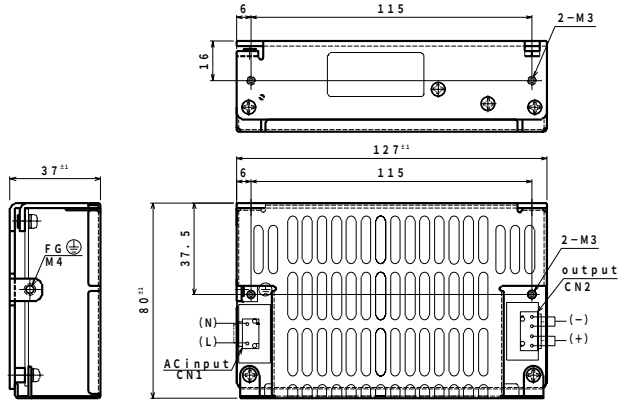
*1 When maximum output is worked
*2 When cold start works with rated voltage at 25ºC ambient temperature
*3 Recovers automatically
*4 Recovers on input again
*5 When maximum output is worked, after last AC line peak
*6 (Peak) : Peak Loads for 10 seconds or less are acceptable.

Specifications subject to change without notice.(2004.9)

MSW60 GENERAL SPECIFICATIONS

	ITEM	
1	Maximum line / load regulation	±0.5%
2	Voltage tolerance ratio	±3% at line, load, time, temperature
3	Operating temperature	-10 ~ 60ºC (Refer to Output derating)
4	Operating humidity	30 ~ 90%RH (Non condensing)
5	Storage temperature	-30 ~ 85ºC
6	Storage humidity	10 ~ 95%RH (Non condensing)
7	Cooling	Convection or forced air cooling (Refer to Output derating)
8	Electric strength voltages	Input – Output 4000VAC 1 minute, Input – FG 1500VAC 1 minute, Output –FG 500VAC 1 minute
9	Insulation resistance	100MΩ MIN DC500V 25ºC 70%RH Input – Output, Input – FG, Output – FG
10	Leakage current	0.3mA MAX (240VAC,50Hz)
11	Vibration	10 ~ 55Hz 2G (3 directions each 1 hour)
12	Shock	20ms 20G (3 directions each 3times)
13	Safety standards	UL60601-1, CSA60601.1 (cUL), EN60601-1 (NEMKO) Approvals
14	Conduction noise	Meeting FCC Class B, EN55022 Class B, VCCI Class B
15	Mains surge	Meeting EN61000-4-5 Level 3/4KV(CM), 2KV(DM)
16	Dimensions	127(W) 76(D) 32(H) mm/5.00”(W) 3.00”(D) 1.26”(H)
17	Weight	255g /0.57lb. TYP

MSW60 OUTLINE DRAWING



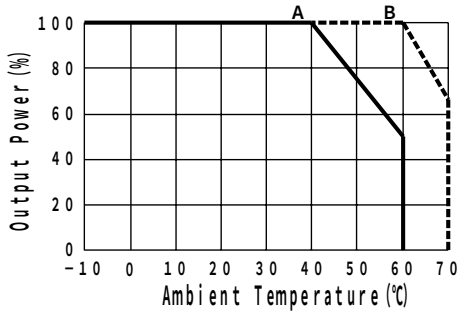
Connectors Used

Part Description	Part Name	Manufacturer	Q.T.Y
CN1 Pin Header (Input side)	B2P3-VH or T7094	JST EMUDEN	1
CN2 Pin Header (Output side)	B4P-VH or T7094	JST EMUDEN	1

Matching Housings and Pins (Not included with the product)

Part Description	Part Name	Manufacturer	Q.T.Y
CN1 Socket Housing	VHR-3N	JST	1
CN2 Socket Housing	VHR-4N	JST	1
(CN1, CN2) Terminal Pins	BVH-21T-P1.1	JST	6

MSW60 OUTPUT DERATING



A:Conv.With Cover(option)
Conv.Open Frame
B:Recommended minimum air
Vrocity 0.7m3/minute

Mounting Direction (conv)