

MSW 150

### FEATURES

- \*Resonant switchers, power factor correction and main converter
- \*Power factor correction up to 0.99, meeting IEC61000 -3-2(EN61000-3-2)
- \*85 to 264VAC universal input
- \*High efficiency up to 90%
- \*Low EMI, meeting FCC B, CISPR B
- \*Less than 0.3mA leakage
- \*Thin type below 1U

### SAFETY STANDARDS

- UL2601-1 Recognized
- CSA22.2 No.601.1 Certified (cUL)
- EN60601-1 (NEMKO Certified)
- CE mark (LVD only)



### APPLICATIONS

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

### MSW150 SPECIFICATIONS

ITEM		MSW150-12	MSW150-15	MSW150-24	MSW150-36
1	Rated output DC voltage	12 V	15V	24 V	36V
2	Rated output DC current (Peak *6)	12.5 A (25A)	10.0A(20.0A)	6.3 A (12.5A)	4.2 A (8.3A)
3	Maximum output power (Peak *6)	150.0W(300.0W)	150.0W(300.0W)	151.2W(300.0W)	151.2W(298.8W)
4	Adjustable voltage range	*1 11.7 ~ 12.6V	14.7 ~ 15.8V	23.5 ~ 25.2V	35.3 ~ 37.7V
5	Efficiency (120/230VAC, TYP)	*1 85% / 86%	86% / 87%	87% / 88%	88% / 89%
6	Maximum ripple noise	80mVpp	100mVpp	150mVpp	200mVpp
7	Over current protection	*3 25.5A ~	20.5A ~	13A ~	8.5A ~
8	Over voltage protection	*4 13.8V ~	17.3V ~	27.6V ~	40V ~
9	Input voltage range	85V ~ 264V			
10	Input frequency range	47Hz ~ 63Hz			
11	Input current	*1 1.7A (100VAC), 0.8A(230VAC)			
12	Power factor	*1 0.99TYP (100VAC), 0.95TYP (230VAC)			
13	Inrush current	*2 20Apk MAX (120VAC), 40Apk MAX (240VAC)			
14	Hold-up time	*5 20msMIN			

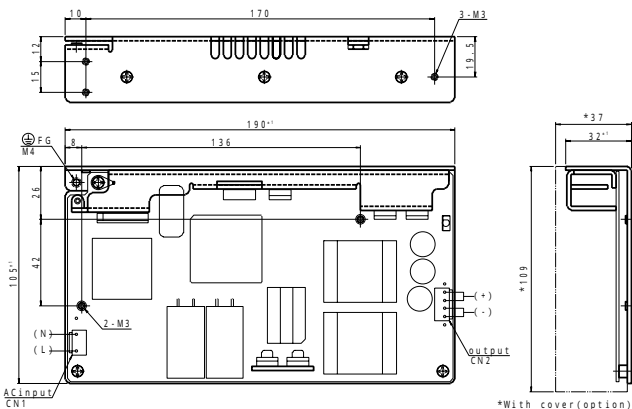
### Notes

- \*1 When maximum output is worked
- \*2 When cold start works with rated voltage at 25°C 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. Input voltage range AC120V~AC264V only.

**MSW150 GENERAL SPECIFICATIONS**

ITEM		
1	Maximum line / load regulation	±0.5%
2	Voltage tolerance ratio	±3% at line, load, time, temperature
3	Operating temperature	-10 ~ 55°C (Refer to Output derating)
4	Operating humidity	30 ~ 90%RH (Non condensing)
5	Storage temperature	-30 ~ 85°C
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 25°C 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	UL2601-1, CSA601.1 (cUL), EN60601-1 (NEMKO) Approvals
14	Conduction noise	Meeting FCC Class B, EN55022 Class B, VCCI Class B
15	Harmonic distortion	Meeting EN61000-3-2
16	Mains surge	Meeting EN61000-4-5 Level 3/4KV(CM), 2KV(DM)
17	Dimensions	105(W) 190(D) 32(H) mm/4.13“(W) 7.48”(D) 1.26”(H)
18	Weight	590g /1.30lb. TYP

**MSW150 OUTLINE DRAWING**



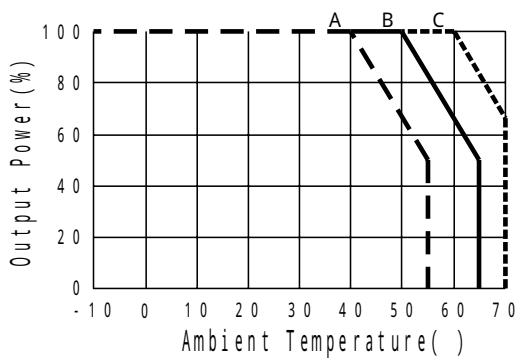
**Connectors Used**

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

**MSW150 OUTPUT DERATING**



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

**Mounting Direction (conv)**

