

# MS - 1 1

## SPECIFICATIONS

A008-01-01 A

Items	Model	MS-11MS-11MS-11MS-11MS-11MS-11MS-11MS-11MS-11MS-11													
		-2	5	-6	-9	-12	-15	-18	-24	-28	-48				
1	Nominal Output Voltage	V	2	5	6	9	12	15	18	24	28	48			
2	Maximum Output Current	A	20	20	17	12	10	8	6.5	5	4	2.5			
3	Maximum Output Power	W	40	100	102	108	120	120	117	120	112	120			
4	Efficiency (Typ) (*1)	%	70	76	76	78	81	81	83	84	85	85			
5	Input Voltage Range (*9)	—	85~132VAC (47~440Hz) or 90~165VDC												
6	Input Current (Typ) (*1)	A	0.9	2.2	2.2	2.35	2.6	2.6	2.35	2.4	2.3	2.4			
7	In-rush Current (Typ) (*2)	A	30A at 100VAC												
8	Output Voltage Range	%	±10% (Typ)												
9	Maximum Ripple & Noise	mV	50	50	50	60	60	60	80	80	80	100			
10	Maximum Line Regulation (*3)	mV	20	20	24	36	48	60	72	96	112	192			
11	Maximum Load Regulation (*4)	mV	20	20	24	36	48	60	72	96	112	192			
12	Over Current Protection (*5)	A	22.0	22.0	18.5	13.0	11.0	8.8	7.2	5.5	4.4	2.8			
		V	~26.0	~26.0	~22.0	~15.7	~13.0	~10.5	~8.5	~6.5	~5.2	~3.3			
13	Over Voltage Protection (*6)	V	2.7	5.75	6.9	10.5	14.0	17.5	21.0	28.0	32.7	56.2			
		V	~2.9	~6.25	~7.5	~11.2	~15.0	~18.7	~22.5	~30.0	~35.0	~60.0			
14	Hold-Up Time (*7)	ms	More than 20ms												
15	Remote Sensing	—	Possible												
16	Remote ON/OFF Control (*8)	—	Possible												
17	Parallel Operation	—	Possible												
18	Series Operation	—	Possible												
19	Operating Temperature (*9)	°C	-10 ~ +71												
20	Operating Humidity	%	30% ~ 90% RH												
21	Storage Temperature	°C	-30 ~ +85												
22	Storage Humidity	%	10% ~ 95% RH												
23	Cooling	—	Convection cooled												
24	Temperature Coefficient	%	Less than 1% at -10°C ~ +71°C												
25	Withstand Voltage	kV	Input-Output, Input-Chassis...2.0kVAC 1min (20mA)												
26	Isolation Resistance	Ω	More than 100MΩ at 25°C and 70%RH Output-Chassis...500VDC												
27	Vibration	—	Less than 19.6m/s <sup>2</sup>												
28	Shock	—	Less than 196.1m/s <sup>2</sup>												
29	Weight	g	930												
30	Size	—	Refer to Outline Drawing												

### NOTES

- \*1 : At 100VAC & maximum output power.
- \*2 : When resuming operation in less than 8 sec after power failure at no load, softstart circuit will not limit the in-rush current at turn-on.
- \*3 : From 85~132VAC or 90~165VDC, constant load.
- \*4 : From No load ~ Full load, constant input voltage.
- \*5 : Constant current limiting with automatic recovery.
- \*6 : Inverter shut-down method, manual reset.
- \*7 : At 100VAC input, and output power of 100 W.
- \*8 : TTL compatible input ; greater than 2V or open...shutdown, UV~0.8V...power on. Supply voltage to CNT must not exceed 7V.
- \*9 : Ratings : Percent of maximum output current or maximum output power, whichever is greater.
  - i) With respect to operating temperature
    - 10°C... 60% , 60°C...70%
    - 0~50°C...100% , 71°C...50% (61°C~71°C Forced air cooling)
  - ii) With respect to input voltage
    - 85~132VAC , 110~165VDC...100%
    - 90~110VDC... 80%