

Key Features:

Safety Approvals:


- **Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz**
- **3 Prong Plug-In Mains Connector**
- **Output Voltage Available From 5VDC Thru 27VDC**
- **Optional Output Connector**
- **Single Output Class II Insulation (Double Insulation)**
- **Over Voltage and Over Load protection**
- **Over temperature Detection**
- **3 Year Warranty**

Description: The MSOR12X Series of AC/DC switch mode power supplies provide 12 watts of continuous output power. This series is suitable for use in Blood Pressure measurements, Frequency Therapy Device and Dental Curing light applications. All models are designed to comply with TUV/T-mark (EN 60601-1) and new CE requirements.

Electrical Characteristics:

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Operating Voltage	90		264	VAC
Input Frequency		47		63	Hz
Output Power Range	Vin=90 to 264VAC	0		12	W
Output Voltage Range		See rating chart			V
Output Current Range		See rating chart			A
Input Current (Low Line)	Io=Full load, Vin=115VAC		0.25	0.35	A
Input Current (High Line)	Io=Full load, Vin=230VAC		0.17	0.22	A
Low Line Inrush Current	Io=Full load, 25 °C, Cool start,115VAC		14	16	A
High Line Inrush Current	Io=Full load, 25 °C, Cool start, Vin=230VAC		28	30	A
Efficiency	Io=Full Load, Vin=230VAC	70.8	72	85	%
Line Regulation	Io=Full Load		0.5	1	%
Load Regulation	Vin=230VAC		3	5	%
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Hold-Up Time	Io=Full Load, Vin=110VAC	10	16		mS
Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	S
Ripple & Noise(Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%

MSOR12X Series

12 Watts

Temperature Coefficient	All outputs	-0.04		0.04	%/ °C
Thermal Shutdown by Junction	Temperature Controller	-25		130	°C
Operating Temperature		0	50	70	C
Storage Temperature		-40		85	C
Relative Humidity	No-Condensing	5		95	%
Derate linearly from 100% load at 50 C to 50% load at 70 C					

Safety Specifications:

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Dielectric Withstanding Voltage	Primary to secondary	5803			VDC
Meet EMI CISPR-11	Vin=120VAC, 60Hz	B			CLASS
Meets EMI EN55022	Vin=230VAC, 50Hz	B			CLASS

Part Number	Model Number	Output Current	Total Regulation	Maximum Output Power
MSORS10-5SX	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W
MSORS12-7SX	6 ~ 8 VDC	1.66 ~ 1.25 A	5%	12W
MSORS12-9SX	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W
MSORS12-12SX	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W
MSORS12-16SX	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W
MSORS12-18SX	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W
MSORS12-24SX	21 ~ 27 VDC	0.57 ~ 0.44 A	3%	12W

Notes:

- The total regulation on models 9S-12S requires 20 AWG / 6FT output cable.
- The regulation and efficiency will change with modified output cable.
- Dimensions shown below are in MM, weight is approximately 150 grams.

Mechanical Specifications: (UK Type)

