

# MSR11 Series

SERVO VOLTAGE  
STABILIZER  
1-50kVA  
Single Phase / Single Phase

Servo Drive Structure,  
Microcontroller Controlled Heavy  
Duty Devices Which Regulates  
Mains Voltage for Critical Loads



- 1 Phase in / 1 Phase Out (1-50kVA)
- Single Phase Voltage Stabilisers
- Regulate Mains Voltage and Bring Many Advantages
- Non-Linear Charges Drive
- 1 Phase Input 1 Phase Output
- Wide Power and Voltage Interval
- Fast Regulation
- High Reliability Thanks to Microprocessor and Smart Driver
- High Efficiency
- Load Transfer to Bypass Via Pole Charge Switch
- Safe and Economic Usage
- Overcurrent and Overload Protection (Optional)
- Digitally Displayed Status, Input & Output Measurements
- 2 Years Warranty
- 10 Years Spare Parts Support

1kVA • 2kVA • 3.5kVA • 5kVA • 7.5kVA • 10kVA • 15kVA • 20kVA • 25kVA • 30kVA • 40kVA • 50kVA

**MAKELSAN®**  
Uninterruptible Power Supplies

MODEL												
Capacity	1kVA	2kVA	3.5kVA	5kVA	7.5kVA	10kVA	15kVA	20kVA	25kVA	30kVA	40kVA	50kVA
INPUT												
In. Vol. Correct. Interval	160~260VAC											
In. Vol. Working. Interval	90~285VAC											
Operation Frequency	47~65Hz											
Line Input Protection	Overcurrent, Low and High Voltage Protection											
OUTPUT												
Output Voltage	220VAC RMS $\pm$ 2%											
Overloading	10Sec. 200% Load											
Correction Speed	~90Volt/Sec.											
Upturn Period	~90volt/Sec (160VAC~250VAC).											
Output Protection	Protects Load by Opening the Circuit When Overburden, Short Circuit Occurs											
WORKING PRINCIPLE												
Servo Motor; Microprocessor Controlled, Full Automatic												
GENERAL												
Cooling	Smart Fan System											
Measured Value Monitor	MSR Panel Voltmeter (74x74mm) Output Voltage and Line Voltage Monitorization											
Total Harmonic Distortion	-											
Total Efficiency	>96%											
Mechanical Bypass	"Manually Controlled Line-PAKO SWITCH Selects Voltage Regulator" Switch Turn On/Off											
Protection Level	IP 20 // IP 25											
ENVIRONMENTAL												
Working Temperature	-10°C~50°C											
Storage Temperature	-25°C~60°C											
Relative Humidity	<90%, DIN (40040)											
Working Altitude	<2000m											
Acoustic Level	<50dB (1metersquare)											
Documents	CE//TÜV Austria Hellas (ISO 9001)											
OTHERS												
Dimension WxDxH (mm)	420x230x230		450x350x270		550x350x270		600x400x320	500x500x850			500x700x850	
Weight (kg)	15	16	29	40	47	55	75	125	136	163	180	210

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