

# MPC Series

IGBT PWM CONTROLLED  
DIGITAL STABILIZER  
75-1000kVA  
Three Phase / Three Phase

Ultra Fast PWM Controlled  
AVR with Precise Regulation

Designed to Protect Sensitive Equipment Such as  
Laboratory Analyzers, Medical Imaging Systems,  
Broadcast Transmitters, Security Scanners  
and CNC Machine Tools



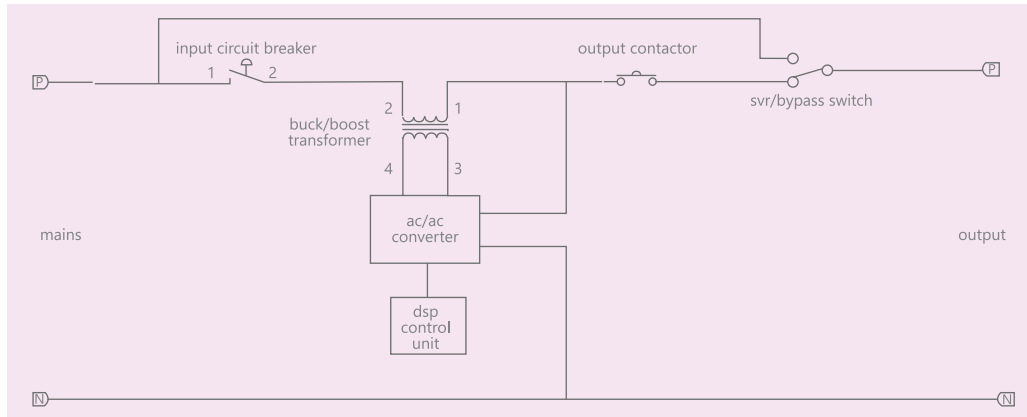
- Excellent Voltage Regulation of  $\pm 1\%$
- Very Fast Correction Time of  $< 30\text{ms}$ ,  $2000\text{V/s}$
- Soft Start to Reduce Inrush Current
- Auto Bypass
- Silent operation
- Excellent load protection capabilities to ensure load life
- Compatible with almost all load application
- Static Voltage Stabilizer is working on IGBT (static device) based PWM Control technology, No moving or mechanical contact for voltage regulation
- At the primary of buck-boost transformer difference voltage is added and subtracted by IGBT based AC – AC converter to regulate output voltage
- Cycle by cycle voltage regulation without interrupting load current

75kVA • 100kVA • 120kVA • 150kVA • 200kVA • 300kVA • 400kVA • 500kVA • 600kVA • 800kVA • 1000kVA

### COMPARISON BETWEEN MAKELSAN DIGITAL STABILIZER and OTHER STATIC STABILIZER

PARAMETERS	MAKELSAN DIGITAL STABILIZER	STATIC STABILIZER
1 Output Voltage Regulation	±1%	±3%
2 Correction Speed	>2000V/sn	500V/sn
3 Inrush Current Limiting For Surge Loads	Yes	No
4 High Reliable	Yes	No

### SYSTEM ARCHITECTURE (PER PHASE)



MODEL												
Capacity (kVA)	75	100	120	150	200	300	400	500	600	800	1000	
INPUT												
Input Voltage Range	220/380 VAC [230/400/415 VAC] 3Phase+N ±25%											
Input Frequency	50 / 60 Hz (Adjustable)											
Input Frequency Range	±10%											
OUTPUT												
Output Voltage	220/380 VAC [230/400/415 VAC] 3Phase+N (Adjustable)											
Output Voltage Tolerance	±1%											
Correction Speed	>2000 V/sn (<30 ms)											
Efficiency	>97%											
Output Protection	Short Circuit, Overcurrent, Over-Under Voltage											
Overload	at 125% load 10 min., ≥ 150% load 1 min.											
GENERAL												
Topology	High Frequency 20kHz IGBT Driven Voltage Regulation Converter. Buck- Boost Transformer. Pulse width Modulated (PWM) Controlled Direct AC to AC Converter Topology.											
Automatic Bypass	Automatic Bypass will be Activated when There is a Fault Condition											
Protection Level	IP20											
Operating Temperature	-10°C~50°C											
Relative Humidity	<90% (Non Condensing 40040)											
Noise	<60dB											
Dimension WxDxH (mm)	750 x 920 x 1825			950 x 1059 x 1825			(3 Pieces) 700 x 1059x 1607			(3 Pieces) 850 x 1000 x 1900		
Weight (kg)	400	465	520	640	760	1050	1200	1330	1600	1900	2300	

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