# **WSVS**

SFRIFS

10-2000 kVA 3:3 **1-30** kVA 1:1 PHASE

# STATIC VOLTAGE STABILIZER







TOWER

POWER FACTOR SERVICE







INDUSTRY

TRANSPORT

#### **HIGHLIGHTS**

- Microprocessor Controlled **Voltage Stabilisation**
- Precise Output Voltage Accuracy
- True Static-Modular Design with **Thyristor Technology**
- High Voltage Regulation Speed
- Maintenance Free





# Highly Reliable and Endurable Static Design

- Microprocessor controlled Static design stabilizers automatically regulate and protect the loads against dangerous voltage changes.
- Compatible with all load types and offering independent phase control, they deliver ultra-fast response times in correcting under / over voltages, sags and surges - making them ideal for highly sensitive / mission critical loads and applications.

#### **CERTIFICATES**



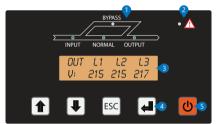






#### Standart Electrical Features

- Wide Input Voltage Range
- Precise Output Voltage Accuracy ±1% to ±5%
- Ultra Fast Voltage Regulation (500V/s)
- True 32-bit Microcontroller Controlled
- High Efficiency > 97%
- Independent Phase Regulation to Correct Voltage aand Load Imbalance
- Electronic Protection Against to Over Load, Low Voltage, High Voltage, Over Temperature, Over Current and Short Circuit
- Overload Protection up to 150%
- Fast Responsive to Voltage Surges
- User Friendly, Easy and Comprehensive LCD Display and Mimic Diagram



- 1. Input Led Bypass Led Normal Led Output Led
- 2. Alarm/Warning Led 3. LCD Display
- 4. Menu Keys
- 5. On/Off Button
- Advanced Alarm Menu
- Manual Bypass
- Auto Restart when Mains Available
- 512 Events Log Memory (Opt.)
- Full Electronic Static Structure with No Moving Parts, Delivering a 'Maintenance Free' Voltage Regulation Solution
- Compact Design with High Quality Material and Minimum Malfunction Hazard
- Designed, Manufactured and Supplied to Comply with
- Fully CE Compliant and Labelled

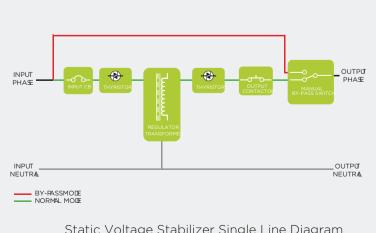
# **Flexibility**

- Available at any required input voltage value and range.
- Available at any required output voltage value and tolerance from  $\pm 1\%$  to  $\pm 5\%$ .
- Output voltage can be adjusted by the LCD panel.
- Functionable with 50Hz and 60Hz.
- Optional MCCB can be added to the output to provide additional protection.
- Optional automatic by-pass unit can be added to the output.
- Isolation transformer or voltage changing auto-transformer can be added for both input and output.
- Indoor and outdoor special cabinets with various IP protection classes can be provided.
- Optional EMC-filters at both input and output.
- Optional high-voltage protection and surge arrester.
- Input and output terminals can be designed and located specially on the cabinet.
- Optional Modbus.

#### MICROPROCESSOR CONTROLLED THYRISTOR TECHNOLOGY

Based on high speed semiconductor (Thyristor) technology and all digital microprocessor control, WSVS Series Static Voltage Stabilizers continuously monitor the incoming supply. Should the incoming voltage rise or drop, the stabilizers will automatically control the output to ensure the voltage reaching the load equipment always remains constant at the requisite voltage.

Inbuilt spike protection ensures the load is continuosly protected against harmful mains born high energy spikes and surges.



Static Voltage Stabilizer Single Line Diagram

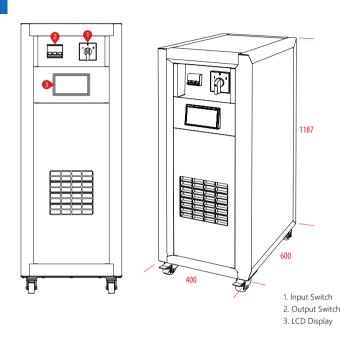
# DETAILS

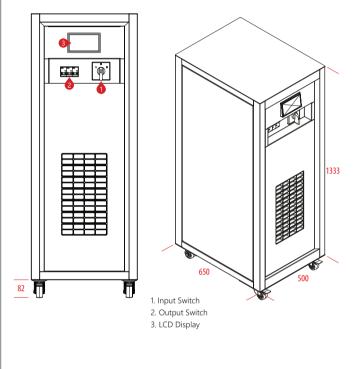
WSVS SERIES 10-30 kVA

WSVS SERIES 40-60-75 kVA

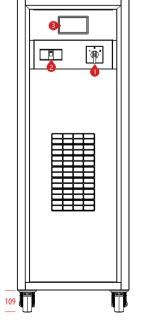


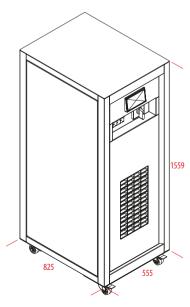






# WSVS SERIES 100-120-150 kVA



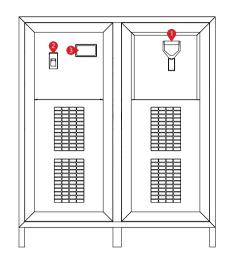


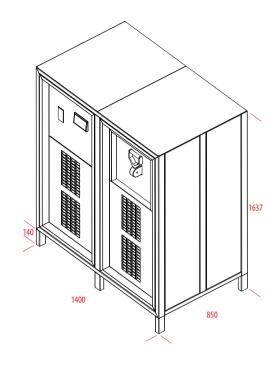
<sup>3.</sup> LCD Display



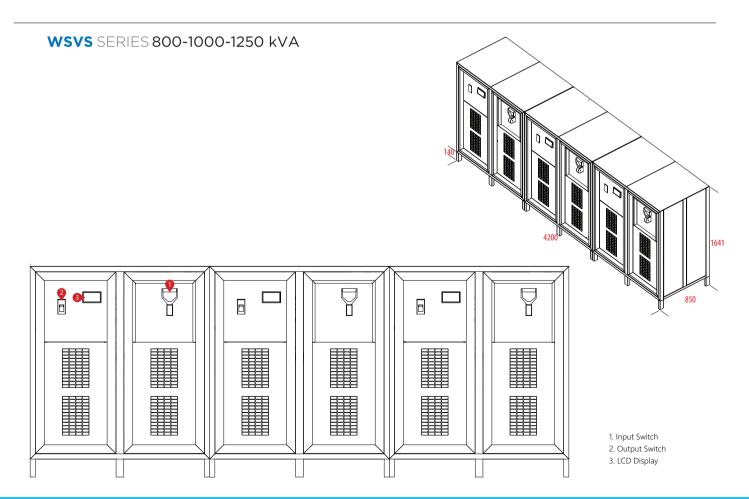
# **DETAILS**

#### WSVS SERIES 200-300-400-500-600 kVA





- 1. Input Switch
- 2. Output Switch
- 3. LCD Display



**UPS** 

MODEL																				
Capacity (kVA)	10	15	22,5	30	45	60	75	100	120	150	200	300	400	500	600	800	1000	125	0 1500	2000
INPUT								•											·	·
In. Vol. Correct. Interval								275~	450 VA	AC (Op	tional:	190V~	485V)							
Operation Frequency									50	)~60 H	z (±10°	%)								
Line Input Protection	Overcurrent Thermic Fuse																			
OUTPUT																				
Output Voltage	380 V	380 VAC RMS ±3% (Std.) 380 VAC RMS ±5% (Optional 1% to 5%)																		
Overloading		10min 125% Load, 1min 150% Load, 10sec 200% Load, 20ms 500% Load																		
Correction Speed		500 Volt/sec																		
Upturn Period		20ms																		
Output Protection		Short Circuit, Overload, Overtemperature, Over and Low Voltage Protections																		
WORKING PRINCIPLE			Microp	oroces	sor Co	ntrolle	d, Full /	Autom	atic, St	atic, Se	mi Cor	nducto	r Electr	onic St	tructur	e Main	itenar	nce Fre	ee	
CONTROL PANEL																				
Display and Buttons	Load Level, Input-Output Voltage																			
Alert Message	Input Low/High, Output Low/High, Overtemperature																			
GENERAL																				
Efficiency									>	97% (F	ull Loa	d)								
Mechanical Bypass	"Manually Controlled Line - PAKO SWITCH Selects Voltage Regulator" Switch Turn On/Off																			
Protection Level	IP20																			
Standard	TS EN 61000-6-2:2006, TS EN 61000-6-3:2007 (EMC), IEC60204-1+A1:2008 (LVD)																			
ENVIRONMENTAL																				
Operating Temperature	-10°C~50°C																			
Storage Temperature	-25°C~60°C																			
Relative Humidity	<90%, DIN (40040)																			
Altitude	<2000m																			
Noise Level	<50 dB				<55 dB			<58 dB			<58 dB				<63 dB					
DIMENSIONS & WEIGHT																				
Width	400			500			555			1400					4200					
			600			650			825			850				850				
Cabinet		6	00			650			825				850					85	0	
Cabinet			00 87			650 1333			1559				850 1637			2750		163	7	0   5500

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MODEL													
Capacity (kVA)		1	2	3	7,5	10	15	20	30				
INPUT				'	'	'	'	'					
In. Vol. Correct. Interv	al				20~230 / 145~2	45 / 160~250 VA	ıC						
Operation Frequency					50~60 H	Hz (±10%)							
Line Input Protection					Overcurrent	Thermic Fuse							
OUTPUT													
Output Voltage		380 VAC RMS ±	3% (Std.)		380	VAC RMS ±5% (	Optional 1% to 59	%)					
Overloading		_		10min 125% Load,	1min 150% Load	10sec 200% Loa	d, 20ms 500% Lc	oad					
Correction Speed		_			500 V	'olt/sec							
Upturn Period			20ms										
Output Protection		Short Circuit, Overload, Overtemperature, Over and Low Voltage Protections											
WORKING PRINCIPLI	E	Microprocessor Controlled, Full Automatic, Static, Semi Conductor Electronic Structure Maintenance Free											
CONTROL PANEL													
Display and Buttons		Load Level, Input-Output Voltage											
Alert Message		Input Low/High, Output Low/High, Overtemperature											
GENERAL													
Efficiency						-ull Load)							
Mechanical Bypass		"Manually Controlled Line - PAKO SWITCH Selects Voltage Regulator" Switch Turn On/Off											
Protection Level		IP20											
Standard		TS EN 61000-6-2:2006, TS EN 61000-6-3:2007 (EMC), IEC60204-1+A1:2008 (LVD)											
ENVIRONMENT													
Operating Temperature		-10°C~50°C											
Storage Temperature		-25°C~60°C											
Relative Humidity		<90%, DIN (40040)											
Altitude		<2000m											
Noise Level		<50 dB											
DIMENSIONS & WEIG	-						1						
	Width	192			260			430					
Dimensions (mm)	Depth	361						596					
	Height	352			416			777					

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