



## S-SERIES AUTOMATIC VOLTAGE STABILIZER

### technical data

#### input voltage

- single phase:  $230V \pm 15\%$
- three phase:  $415V \pm 15\%/10\%$   
+ neutral

#### output voltage (true rms)

- single phase:  $230VAC \pm 1.5\%$
- three phase:  $415VAC \pm 1.5\%$

#### rated kva

- single phase: 1KVA ~ 30KVA
- three phase: 3KVA ~ 1000KVA

#### output waveform/

##### distortion

- sinewave/follow input

#### response time

- $0.05 \sim 0.07 \text{ sec/V}$

#### frequency

- 50 / 60Hz

#### efficiency

- $> 95\%$

#### operating temperature

- $0^\circ\text{C} \sim 45^\circ\text{C}$

#### over current protection

- MCB / MCCB

#### SPD surge protection

- 1 phase standard
- 3 phase (optional)

#### phase loss sensing

##### protection

- phase sensing relay (optional)

#### automatic output delay

##### on system

- time delay (optional)



### voltage fluctuation

In the real world power line voltage occurs frequently especially in industrial area. Every electrical equipments and devices do have a working voltage limit/tolerance. Some equipment are build to tolerate  $\pm 10\%$  of nominal voltage while others  $\pm 5\%$  or less depending on sensitivity.

### effects

The correct operation of electrical and electronic equipment depends on the voltage accuracy and stability. In the event of long time over voltage, it will lead to damage of the equipment; while long time under voltage will cause malfunction and computation errors of the electrical & electronic equipment.

### solutions

Installing QPS Automatic Voltage Stabilizer (AVS) or power line conditioner will ensure the continuity and quality of production.

Input voltage variation from:

Single Phase:  $230V \pm 15\%$

Three Phase:  $415V \pm 15\% + \text{Neutral}$  (3 phase 4 wire)

- excellent output voltage accuracy of within  $\pm 1.5\%$  set value.
- regulation correction time approximately  $0.05 \sim 0.07 \text{ sec per volt}$ .
- minimum maintenance due to its simplicity in design.
- easy installation.
- tailor made to special voltages and configuration for example, three phase voltage without neutral or for outdoor configurations.

QPS Servo - Motor Automatic Voltage Stabilizer provides a continuous monitoring of the output voltage (true RMS sensing) by means of an electronic Control Circuit that compares the instantaneous output voltage with the set value. When changes are detected due to fluctuation of supply voltage or sudden changes in load, an electrical signal will be transmitted to the servo - motor which is coupled onto the brush gear of the variable transformer, causes the brush gear to rotate until the appropriate voltage is restored. This method of stabilization does not create interference or harmonic to the supply system. QPS Three phase Automatic Voltage Stabilizers also designed to cater for unbalanced load. This made possible with its independent phase monitoring system.

QPS Automatic Voltage Stabilizers offer high quality performance at competitive prices. They solve voltage unstable problems and increase productivity.

### power line conditioner

QPS power line conditioner (PLC) is a AVS with the inclusion of a shielded isolation transformer.



## S-SERIES AUTOMATIC VOLTAGE STABILIZER

### applications

- CNC wire-cut / EDM
- CNC drilling machine
- CNC milling machine
- X – Ray equipment
- Industrial robots
- Communication system
- PLC equipment
- Broadcasting equipment
- Photographic processing equipment
- Photocopy machine
- Test equipment
- Computers
- Medical equipment
- LAB equipment

### standard features

- over current circuit breaker
- analog voltmeter
- phase indicator lamps
- phase selector switch for voltmeter

### optional features

- surge protection device (SPD)
- over current protection (for model above 150KVA)
- phase loss / phase sequence monitoring (3 phase model)
- automatic output delay on system
- manual bypass switch

### single phase standard fittings

single phase models

standard fittings come with phase pilot lamp, over current breaker and voltmeter with selector switch.

### input termination

power cord c/w 13A BS 3 pin plug – (model 1KVA , 2KVA & 3KVA)

power cord c/w 15A BS 3 pin plug – (model 4KVA)

terminal block for hardwire – (model 5KVA ~ 30KVA)

### output termination

13A BS 3 pin socket – (model 1KVA ~ 5KVA)

terminal block for hardwire – (model 5KVA ~ 30KVA)

### three phase standard fittings

over current breaker – (model 3KVA ~ 150KVA)

phase selector switch for output voltmeter – (model 3KVA ~ 15KVA)

phase selector switch for input & output voltmeter – (model 20KVA ~ 50KVA)

phase selector switch for output voltmeter & ammeter – (model 60KVA ~ 200KVA)

phase selector switch for input, output voltmeter & output ammeter – (model 250KVA ~ 1000KVA)

phase indicator lamps (output)

input & output terminal block (model 3KVA ~ 150KVA)

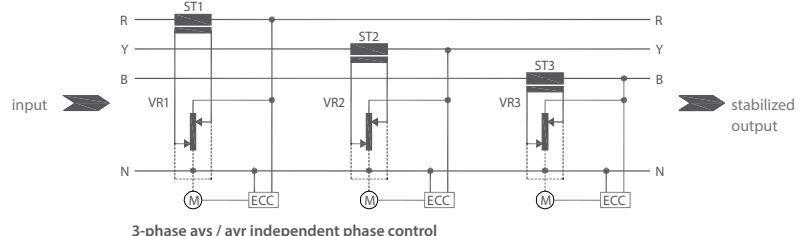
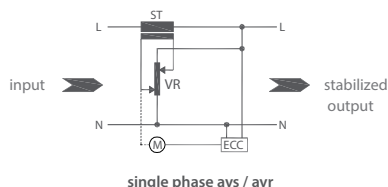
### diagram

#### Single Phase & Three Phase Servo – Motor Voltage Stabilizer Block Diagram

##### Legend

ST – series transformer  
VR – variable transformer

ECC – electric control circuit  
M – servo-motor

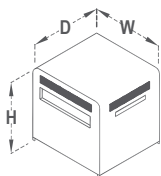


Note: All specifications are subject to change without prior notice for product improvement.

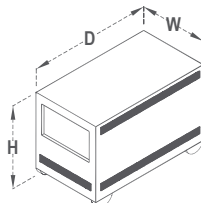


## S-SERIES SINGLE PHASE AUTOMATIC VOLTAGE STABILIZER

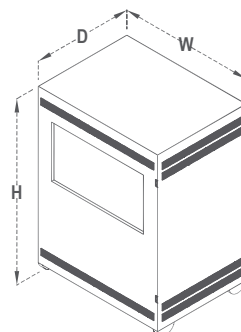
### dimension



cabinet 1



cabinet 2



cabinet 3

### single phase S-series 230VAC

### technical specification

model	cabinet	power rated output (KVA)	rated / output current (A)	input voltage variation (%)	output accuracy	dimensions (mm) (+/-)			weight (kg) (+/-)
						h	w	d	
S1-2	1	1	4	230V $\pm$ 15%	$\pm$ 1.5%	260	280	335	12
S2-2	1	2	9	230V $\pm$ 15%	$\pm$ 1.5%	260	280	335	14
S3-2	1	3	13	230V $\pm$ 15%	$\pm$ 1.5%	260	280	335	21
S4-2	1	4	17	230V $\pm$ 15%	$\pm$ 1.5%	260	280	335	21.5
S5-2	2	5	22	230V $\pm$ 15%	$\pm$ 1.5%	275	260	500	34
S7-2	2	7.5	33	230V $\pm$ 15%	$\pm$ 1.5%	370	270	560	40
S10-2	2	10	43	230V $\pm$ 15%	$\pm$ 1.5%	370	270	560	46.5
S15-2	2	15	65	230V $\pm$ 15%	$\pm$ 1.5%	370	270	560	54
S20-2	3	20	87	230V $\pm$ 15%	$\pm$ 1.5%	640	400	375	64
S25-2	3	25	109	230V $\pm$ 15%	$\pm$ 1.5%	640	400	375	75
S30-2	3	30	130	230V $\pm$ 15%	$\pm$ 1.5%	640	400	375	83

Remarks: The dimensions indicated above is applicable for Automatic Voltage Stabilizer only. Please consult us if any further information is required.



special casing



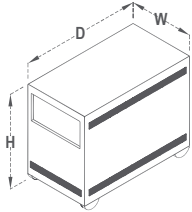
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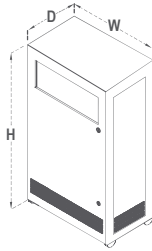
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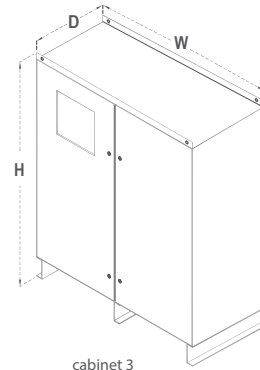
## S-SERIES THREE PHASE AUTOMATIC VOLTAGE STABILIZER



cabinet 1



cabinet 2



cabinet 3

### three phase S-series 415VAC

#### technical specification

model	cabinet	power rated output (KVA)	rated / output current (A)	input voltage variation (%)	output accuracy	dimensions (mm) (+/-)			weight (kg) (+/-)
						h	w	d	
T3-4	1	3	4	415V±15%	± 1.5%	665	320	585	45
T6-4	1	6	8	415V±15%	± 1.5%	665	320	585	50
T10-4	1	10	14	415V±15%	± 1.5%	665	320	585	75
T15-4	1	15	21	415V±15%	± 1.5%	665	320	585	77
T20-4	2	20	28	415V±15%	± 1.5%	1110	570	500	159
T30-4	2	30	42	415V±15%	± 1.5%	1110	570	500	165
T40-4	2	40	56	415V±15%	± 1.5%	1110	570	500	180
T45-4	2	45	63	415V±15%	± 1.5%	1110	570	500	182
T50-4	2	50	70	415V±15%	± 1.5%	1110	570	500	190
T60-4	2	60	83	415V±15%	± 1.5%	1110	570	500	211
T75-4	2	75	104	415V±15%	± 1.5%	1110	570	500	225
T100-4	2	100	139	415V±15%	± 1.5%	1275	660	580	300
T125-4	2	125	174	415V±15%	± 1.5%	1275	660	580	345
T150-4	2	150	209	415V±15%	± 1.5%	1490	660	580	385
T200-4	2	200	278	415V±10%	± 1.5%	1490	660	580	380
T250-4	3	250	348	415V±10%	± 1.5%	1740	1400	800	550
T300-4	3	300	417	415V±10%	± 1.5%	1740	1400	800	732
T400-4	3	400	556	415V±10%	± 1.5%	1740	1400	800	986
T500-4	3	500	695	415V±10%	± 1.5%	1740	1400	800	1100
T600-4	3	600	835	415V±10%	± 1.5%	1955	1600	1400	1200
T700-4	3	700	974	415V±10%	± 1.5%	1955	1600	1400	1700
T1000-4	3	1000	1391	415V±10%	± 1.5%	1955	1600	1400	2000

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