



## Electromechanical three-phase stabilizer

### VST/3000 Family

Electromechanical three-phase stabilizer with independent regulators on each phase + Neutral

#### Three phase electromechanical voltage stabilizers VST from 6kVA to 20 kVA

"VST" automatic three phase voltage stabilizers with electronic control and INDEPENDENT VOLTAGE REGULATION ON EACH PHASE are essential for the use with any unbalanced loads. The stabilizers use three control circuits and three servo-motors; each phase is individually regulated, making the voltage rigorously constant near the rated value. The "VST" stabilizers are ideal for any application and very silent, totally free from magnetic leakage and do not introduce harmonic distortion. Neutral wire is necessary for a proper operation. "VST" stabilizers are equipped with an automatic 3-poles circuit breaker, digital voltmeter with input and output voltage reading on each phase, fine voltage regulation on each phase.

Power	from 6kVA to 30kVA
Input voltage	400V three phase A.C. + N.
Input voltage acceptable variation	± 15% (from 340V to 460V)
Output voltage	400V three phase A.C. + N.
Output voltage accuracy	± 1% with independent regulation on each phase
Fine voltage regulation	± 5% on each phase separately
Frequency	50/60Hz
Regulation speed	20/1000 sec. / Volt
Load tolerable variation	0 - 100%
Load acceptable unbalance	0 - 100%
Acceptable power factor	0 - 1
Full load efficiency	> 98%
Harmonic distortion	< 0,5%
Ambient temperature	0° : 45°C
Altitude	up to 1000m. without derating
Standards	IEC 686
Cooling	Air natural to 15 kVA Forced cooling (fans) from 22 kVA to 30 kVA
Protections	Automatic 4-poles circuit breaker Digital V-meter with in/out reading switch and phase/phase or phase/N reading on each phase Fine output voltage regulation within ± 5% on each phase In/out connectors

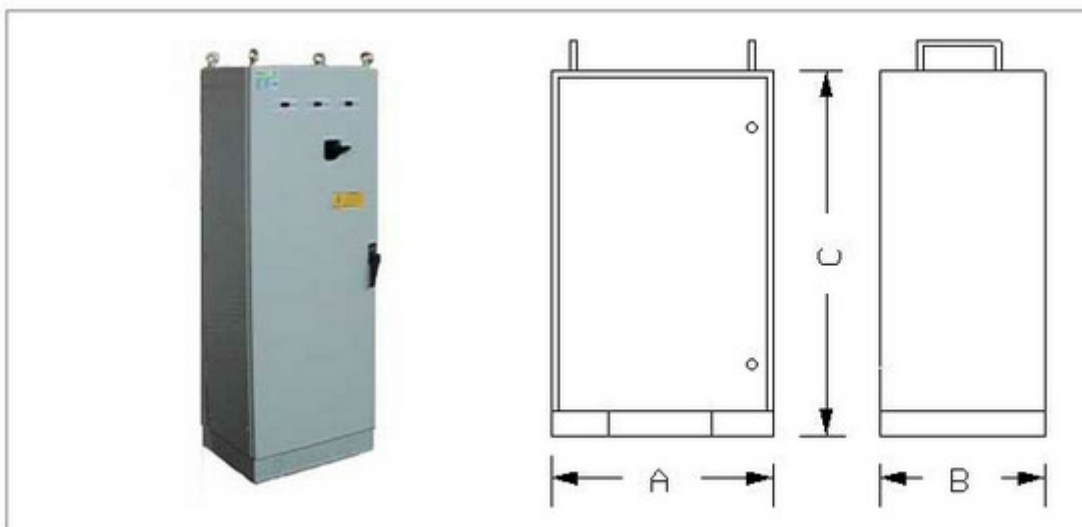
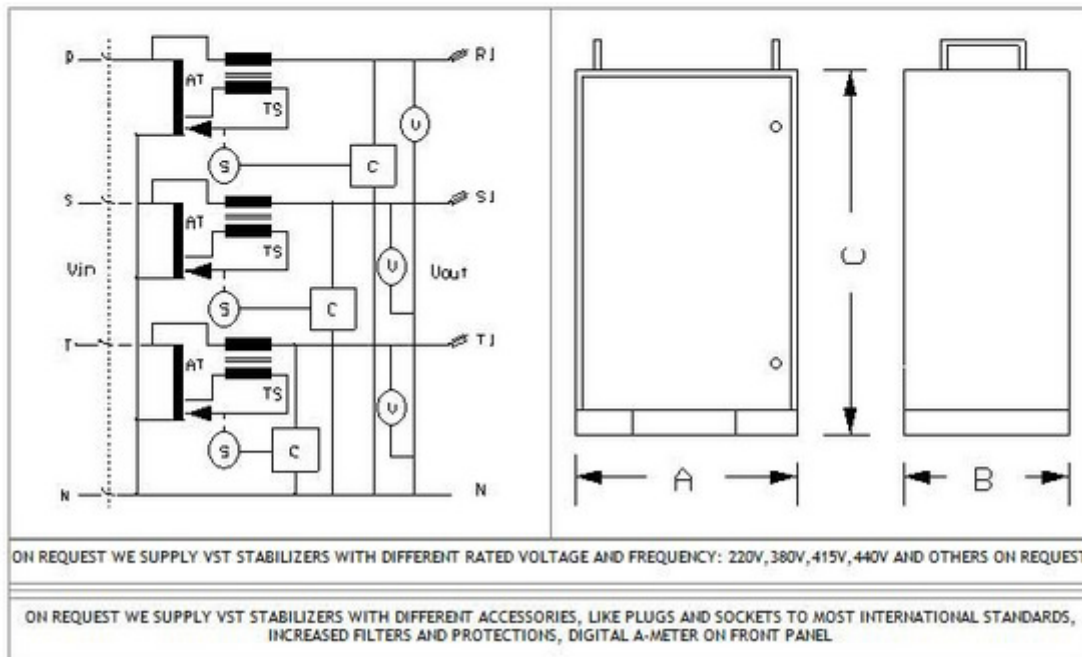
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Power kVA	Part no.	Dimensions (mm)			DWG	Weight
		A	B	C		Kg
6	VST06K	600	300	800	A	80
9	VST09K	600	300	800	A	85
12	VST12K	600	300	800	A	90
15	VST15K	600	300	800	A	97
22	VST22K	600	300	800	A	112
30	VST30K	600	300	800	A	125





### Three phase electromechanical voltage stabilizers VST from 40kVA to 500 kVA

Power	Input	Output	Frequency	Speed	Accuracy
From 40kVA to 500kVA	400V $\pm$ 15%	400V	50/60 Hz	20 mSEC/V*	$\pm$ 1,5%

Our range of electromechanical three phase "VST" voltage stabilizers has been recently extended including five new models from 150kVA up to 500kVA supporting customers which required higher ratings with high levels of efficiency and accuracy. The regulation is independent for each single phase using toroidal voltage regulators of high power and fast regulation speed. "VST" has digital voltmeters with input and output voltage readings on each phase and A-meters on each phase. Protection is assured by an automatic circuit breaker on input up to 100kVA, while fuse protection, automatic circuit breaker or main circuit breaker are available on request for higher ratings. Input and output connections are possible on each side and from the bottom side through an internal board.



The electronic control which gives the regulation assures an output accuracy less than 1.5% with the option of regulating the voltage within the 5% of the nominal output voltage.

Manufactured according to IEC 60686 standards, it is not affected by power factor of load unbalance, and can be connected to a totally (100%) unbalanced load

Power	from 40kVA to 500kVA
Input voltage	400V three phase A.C. + N.
Input voltage acceptable variation	$\pm$ 15% (from 340V to 460V) different range available on request
Output voltage	400V three phase A.C. + N.
Output voltage accuracy	$\pm$ 1% with independent regulation on each phase
Fine voltage regulation	$\pm$ 5% separately on each phase up to 300 kVA
Frequency	50/60Hz
Regulation speed	20/1000 sec. / Volt
Load tolerable variation	from 0 to 100%
Load acceptable unbalance	0 - 100%
Acceptable power factor	0 - 1
Full load efficiency	> 98%
Harmonic distortion	< 0,5%
Ambient temperature	0° : 45°C
Altitude	up to 1000m. on sea level without derating
Standards	IEC 60686
Cooling	Forced air
Protections	4-poles magnetic circuit breaker (up to 100 kVA) RFI filter as a protection of control circuit Surge protection on electronic control
Standard accessories	Thermal-magnetic circuit breaker, digital voltage analyser with four displays with simultaneous reading of values on the three phases, input/output voltage selector, output current, power factor, frequency, internal temperature. Fine regulation of output stabilised voltage, IN/OUT connectors sized to the rating.

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Power kVA	Part no.	Dimensions (mm)			DWG	Weight
		A	B	C		Kg
40	VST 040K	600	400	1500	A	250
50	VST 050K	600	600	1500	A	280
60	VST 060K	600	600	1900	A	315
80	VST 080K	600	600	1900	A	350
100	VST100K	600	600	1900	A	380
150	VST 150K	1200	600	1900	B	500
200	VST 200K	1200	800	1900	B	650
300	VST 300K	1200	800	2100	B	830
400	VST 400K	2400	800	2100	C	1000
500	VST 500K	2400	800	2100	C	1600

