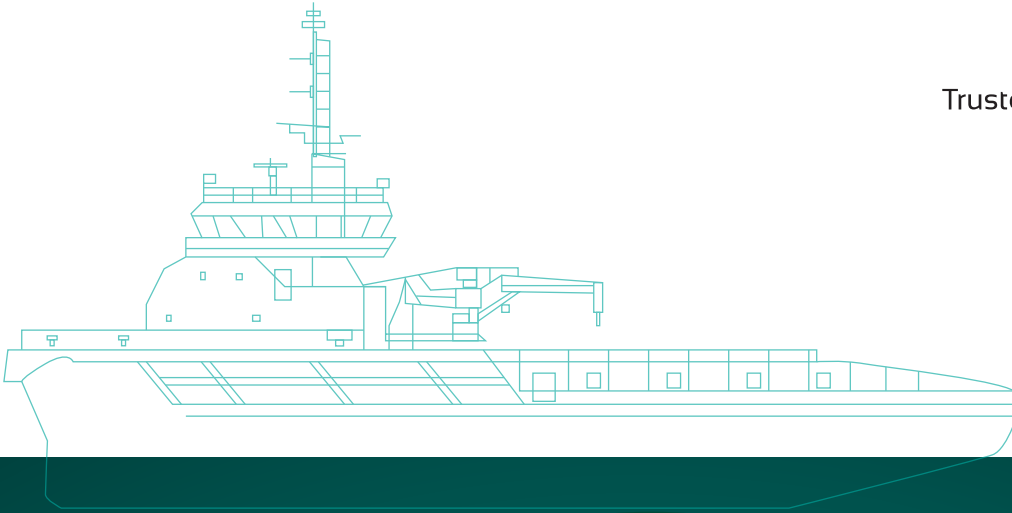
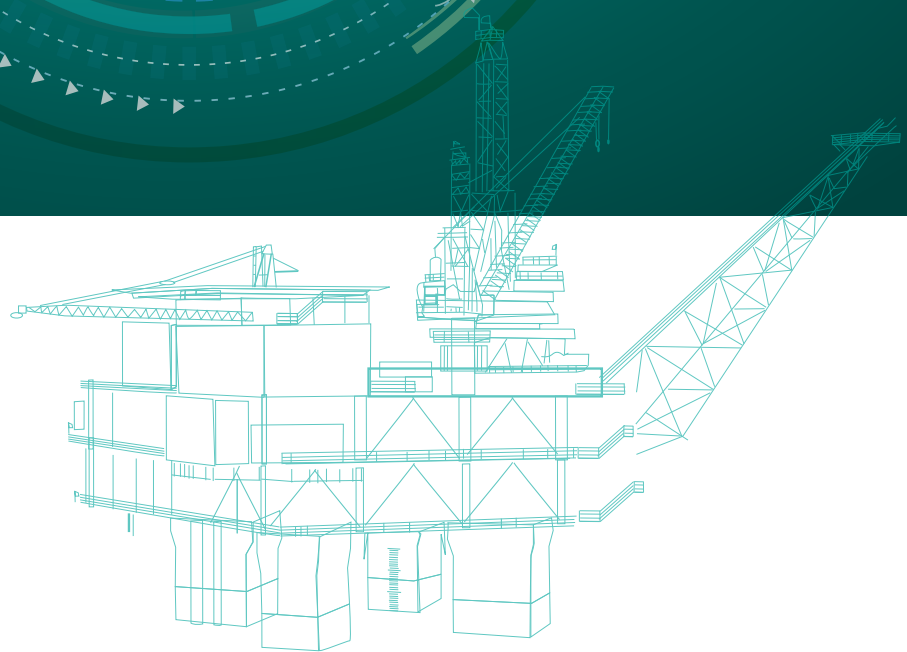
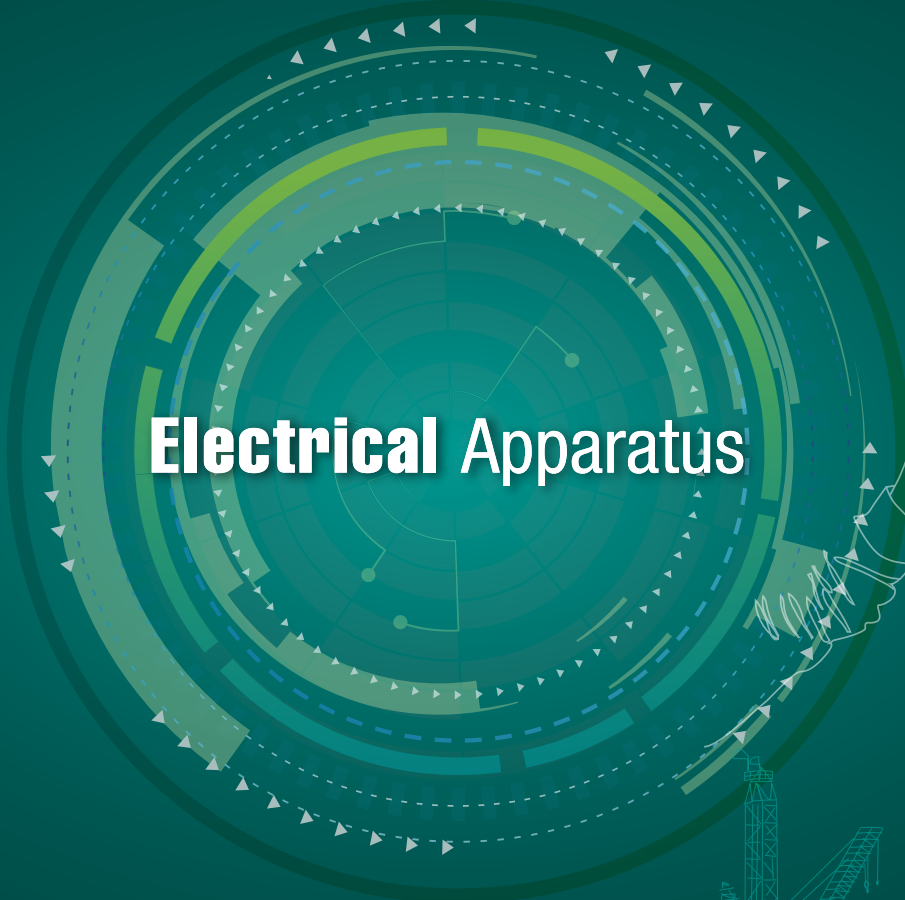
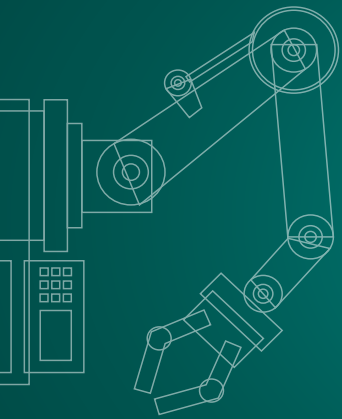


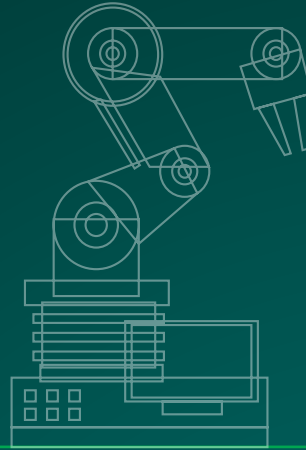
QPS[®]

Trusted Brand in Transformer



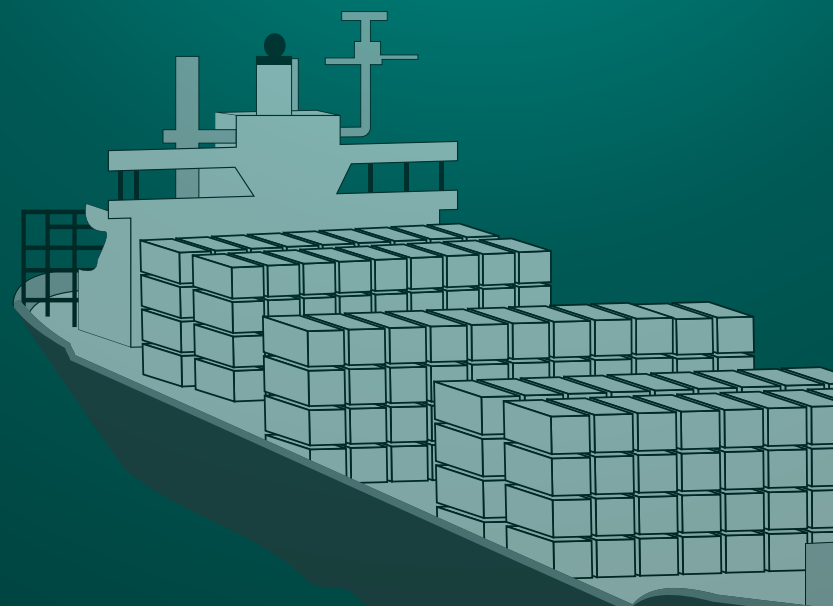
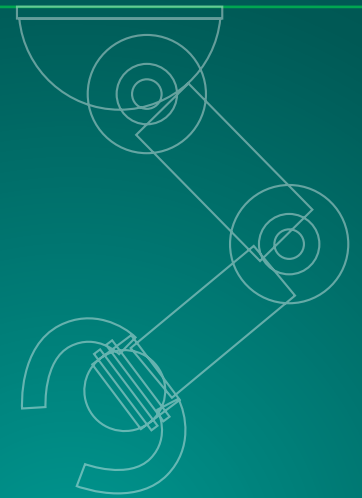
Electrical Apparatus





CONTENTS

- 01 POWER TRANSFORMER
- 03 MOTOR STARTING AUTO TRANSFORMER
- 05 VARIABLE VOLTAGE TRANSFORMER
- 07 DETUNED HARMONIC CIRCUIT FILTER REACTOR
- 09 LINE REACTOR
- 11 V-SERIES AUTOMATIC VOLTAGE STABILIZER
- 15 S-SERIES AUTOMATIC VOLTAGE STABILIZER
- 19 ACCREDITATIONS & CERTIFICATIONS



technical data

standard compliance

- IEC 60076
- EN 61558

certifications

CE

primary / secondary voltage range

- up to 1000V

capacity

- single phase
50VA ~ 100KVA
- three phase
50VA ~ 2000KVA

winding material

- copper or aluminium
- polyester enamelled wire
155°C (Class F) &
180°C (Class H)
- fiberglass wire
180°C (Class H)

silicon steel

- good quality, non grained oriented and low loss grained oriented silicon steel

varnish

- high grade high temperature polyester varnish

insulation class

- class F or H

cooling

- natural air cool

ambient temperature

- maximum 40°C

metal enclosure protection class

- standard: IP20
(other protection class is available upon request)

standard series



three phase



single phase



metal enclosure

introduction

QPS power transformer is suitable for any industrial, commercial, manufacturing and production process application. Power transformer can be offered for a variety of environment conditions, for instance K factor transformer, UPS transformer and marine transformer. QPS transformer is safe, reliable and durable. Not only do we produce top quality transformers but we also custom build transformers according to customers' design and specifications. With the continuous development in all phases of the design and manufacturing processes, we now offer dry-type transformers up to 3000KVA (3MVA).

enclosures

Enclosures for QPS transformers are manufactured from cold-rolled steel sheet and finished with epoxy powder coat. Different Ingress Protection (IP) categories could be supplied upon request, which is up to IP44. Enclosures can also be manufactured to meet customers' special requirements.

type testing

Upon request, the following type test can be carried out at extra costs.

- temperature rise test

Certifications by testing body are available upon request.

accessories

Optional accessories may be requested at an additional cost:

- over-current protection device: MCB / MCCB
- surge protection device
- temperature measurement device
- lamp indicator
- castor wheels
- ventilation fan

facilities

- foil winding machines
- wire winding machines
- vacuum impregnation facility
- comprehensive testing equipment



three phase



three phase



two phase

k-factor transformer

The use of electronic equipment is growing rapidly in both the commercial and industrial sectors. These electronic devices are powered by either switching power supplies or a rectifier circuit. Some examples of these devices include UPS, computers, fax machines and printers. These are contributing to the distortion of the current waveform and the generation of harmonics. Harmonics are defined as currents created by non-linear loads, which generate non-linear current waveforms. Some of the examples in which the harmonics presence include apparatus vibration, overheating of electrical equipment and electronic devices malfunction.

K-Factor transformer is designed to withstand the harmonic distortion associated with these loads. It is suitable for building security and as a bypass transformer for UPS systems, computers and peripherals, telecommunication, laboratory instrumentation and office automation.

marine transformer

QPS marine transformer is safe and durable, which is produced for ships or vessels. The transformer is manufactured in compliance with independent Marine Vessel requirements to maximize safety. The transformer is naturally air-cooled mounted in IP rated metal enclosures. FAT by independent body could be arranged upon customer's request, at an extra cost.

capacity

- single tapping @ 70%
- three tapping @ 50%, 60% and 75%

E-I silicon steel grade

- 0.5mm silicon steel

cooling

- natural air cool

safety

- thermostat protected for transformer above 11KW

termination of wires

- high quality nylon terminal block
- chrome steel metal bolts & nuts

re-start frequencies

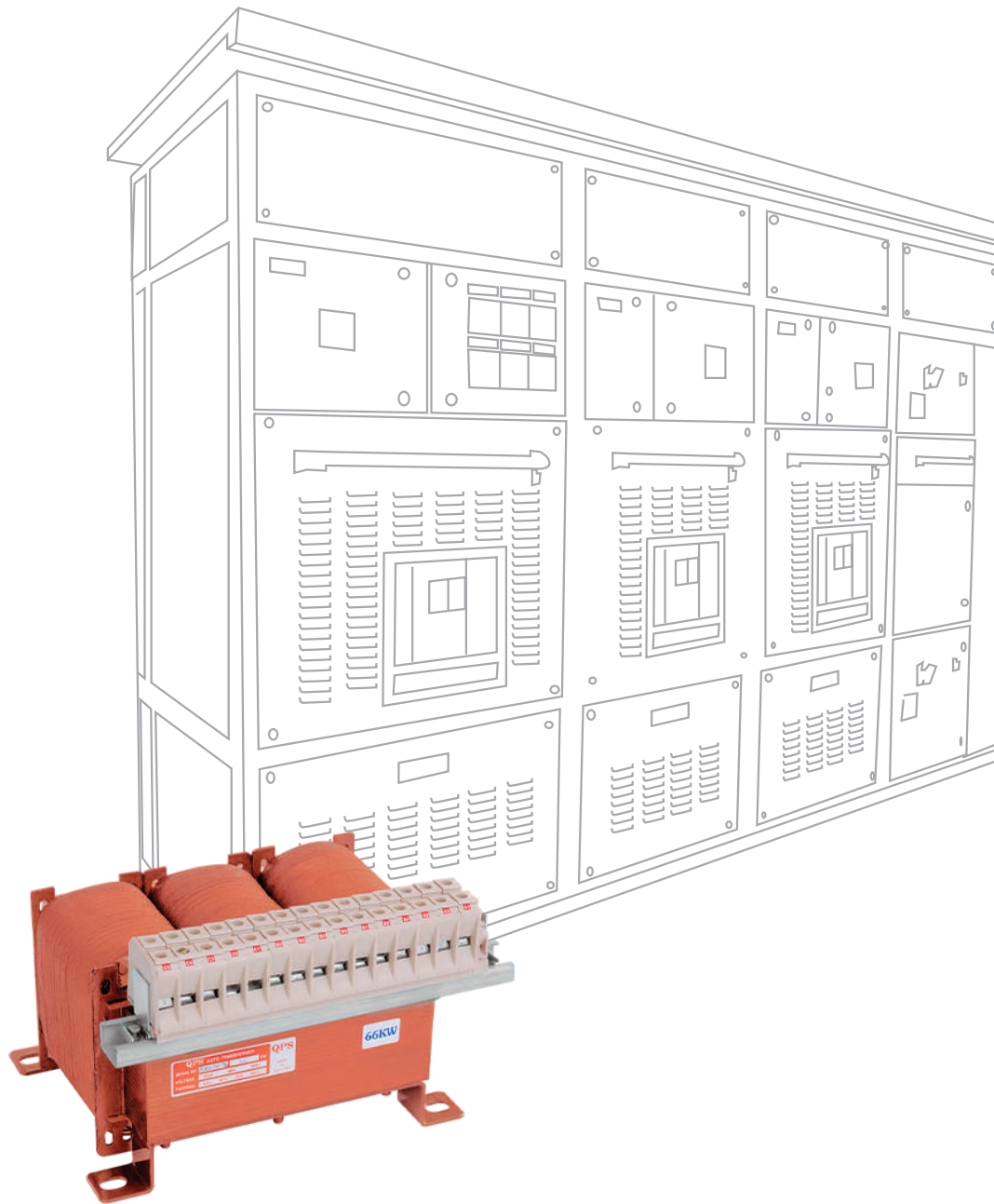
- maximum re-start frequencies of 8 times per hour at appropriate intervals

insulation class

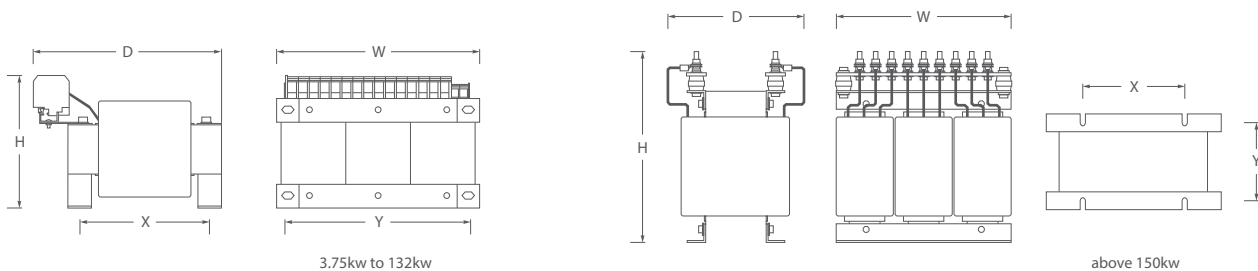
- class F

optional

- customize designs are available upon request



dimension



technical specification for aluminium wire

capacity (kw)	hp	thermostat	no. of tapping	tapping percentage	mounting pitch (mm)		overall dimension (mm)			weight (kg)
					x	y	w	d	h	
3.75	5.0	nil/1	single	70%	120	185	215	195	90	5.5
5.5	7.5	nil/1	single	70%	120	185	215	195	95	6.5
7.5	10	nil/1	single	70%	120	185	215	195	100	7.0
11	15	nil/1	single	70%	140	210	240	215	100	9.5
11	15	1	three	50% 60% 75%	140	210	240	225	140	9.6
15	20	1	three	50% 60% 75%	140	210	240	225	155	11.5
22	30	1	three	50% 60% 75%	155	240	270	245	155	15.0
30	40	1	three	50% 60% 75%	155	240	270	245	160	16.5
37.5	50	1	three	50% 60% 75%	155	240	270	245	170	19.0
45	60	1	three	50% 60% 75%	185	270	300	275	170	20.5
56	75	1	three	50% 60% 75%	185	270	300	275	180	25.5
66	88	1	three	50% 60% 75%	185	270	300	275	210	34.0
80	107	1	three	50% 60% 75%	210	305	340	300	205	36.0
94	125	1	three	50% 60% 75%	210	305	340	300	215	41.0
110	150	1	three	50% 60% 75%	220	305	340	310	245	56.0
132	175	1	three	50% 60% 75%	220	305	340	310	255	61.0
150	200	3	three	50% 60% 75%	210	170	360	370	390	91.0
180	240	3	three	50% 60% 75%	260	170	410	380	400	105.0
225	300	3	three	50% 60% 75%	260	190	410	400	400	120.0

technical specification for copper wire

capacity (kw)	hp	thermostat	no. of tapping	tapping percentage	mounting pitch (mm)		overall dimension (mm)			weight (kg)
					x	y	w	d	h	
3.75	5.0	nil/1	single	70%	120	185	215	195	90	6.1
5.5	7.5	nil/1	single	70%	120	185	215	195	95	7.5
7.5	10.0	nil/1	single	70%	120	185	215	195	100	8.6
11 (S)	15	nil/1	single	70%	140	210	240	215	100	10.7
11 3T	15	1	three	50% 60% 75%	140	210	240	225	145	12.4
15	20	1	three	50% 60% 75%	140	210	240	225	155	13.9
22	30	1	three	50% 60% 75%	155	240	270	245	150	17.3
30	40	1	three	50% 60% 75%	155	240	270	245	155	19.3
37.5	50	1	three	50% 60% 75%	155	240	270	245	155	21.1
45	60	1	three	50% 60% 75%	185	270	300	275	160	24.0
56	75	1	three	50% 60% 75%	185	270	300	275	180	30.3
66	88	1	three	50% 60% 75%	185	270	300	275	190	35.1
80	107	1	three	50% 60% 75%	210	305	340	300	210	42.3
94	125	1	three	50% 60% 75%	210	305	340	300	215	48.3
110	150	1	three	50% 60% 75%	220	305	340	310	235	62.5
132	175	1	three	50% 60% 75%	220	305	340	310	245	68.8
150	200	3	three	50% 60% 75%	210	170	360	370	390	100
180	240	3	three	50% 60% 75%	210	180	360	380	390	115
225	300	3	three	50% 60% 75%	210	190	360	390	390	130

technical data

- high efficiency of greater than 97%
- large cast aluminum carbon brush holder plate for better heat dissipation
- high-grade carbon brush with less than 0.5mm wear and tear after 100,000 cycles usage
- metal casing coated with epoxy paint to provide better surface protection
- enamel wire of PEW 150°C grade provides better working temperature
- improve starting current with the use of high quality grained oriented silicon steel core
- insulation and withstand voltage capable of reaching up to 20M ohm at 500VDC and 1.5kV respectively

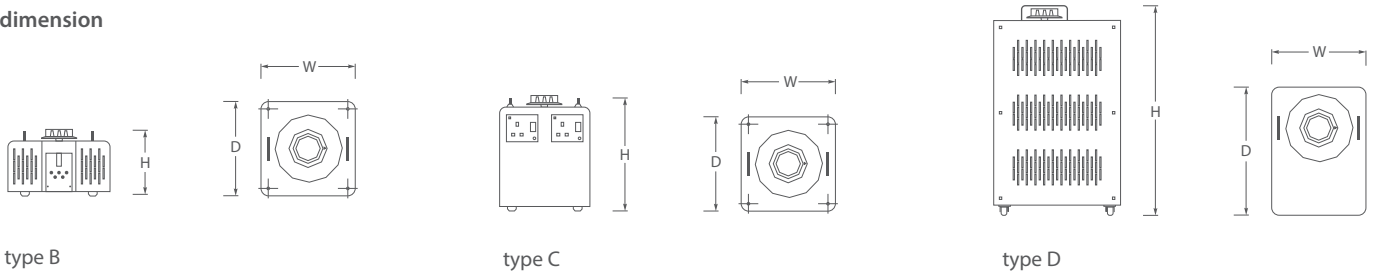
**introduction**

Variable voltage transformers are very convenient and useful where different voltages are required to conduct tests or inspections. Examples are instrument calibration labs, QC department in the manufacturing sector, etc. They are also suitable for use as step-up or step-down transformers in areas where supply voltage is too low or too high.

We are the first local manufacturer of variable voltage transformers in Malaysia under the company's brand QPS. QPS has catered a range of single phase from 5 to 60 Ampere and three phase from 5 to 30 Ampere variable voltage transformers to suit different customers' needs.

QPS variable voltage transformer uses high quality materials and stringent quality controls to ensure that only high quality products are produced at all times. QPS variable voltage transformer provides more than just quality, reliability and compatibility. It also provides strong technical supports to our valuable customers.

dimension



technical specification

model	type	maximum output current (A)	no. of phase	input voltage (V)	output voltage (V)	overall dimensions (mm)			weight (kg)
						w	d	h	
VT1-1	B	5	1	110 / 240	0 ~ 260	165	165	180	9
VT2-1	B	10	1	110 / 240	0 ~ 260	165	165	200	12
VT3-1	B	15	1	110 / 240	0 ~ 260	233	233	195	17
VT5-1	B	20	1	110 / 240	0 ~ 260	233	233	195	20
VT7-1	D	30	1	110 / 240	0 ~ 260	320	390	250	26
VT10-1	D	40	1	110 / 240	0 ~ 260	260	330	560	55
VT15-1	D	60	1	110 / 240	0 ~ 260	320	390	560	65
VT2-1-SC	C	10	1	240	0 ~ 260	225	213	270	14
VT3-1-SC	C	15	1	240	0 ~ 260	245	233	290	19
VT5-1-SC	C	20	1	240	0 ~ 260	245	233	290	22
VT3-3	D	5	3	415	0 ~ 450	220	280	530	28
VT6-3	D	10	3	415	0 ~ 450	240	310	560	45
VT9-3	D	15	3	415	0 ~ 450	260	330	560	58
VT15-3	D	20	3	415	0 ~ 450	260	330	560	65
VT20-3	D	30	3	415	0 ~ 450	320	390	560	80

Remarks: *SC - complete with socket

technical data

rated voltage

· up to 440V

filtering factor (uk)

· 7%

frequency of filter

· 189Hz

tolerance of inductance

· +/- 5%

linearity of inductance

· 1.3In with +/- 5%

test voltage

· 3.0kV

degree of protection

· IP 00

winding material

- copper or aluminium
- polyester enamelled wire
180°C (Class H)
- fibreglass wire 180°C
(Class H)

reactor core

· 0.5mm high grade silicon steel
from Japan & Korea

varnish

· high grade high temperature
polyester varnish

insulation class

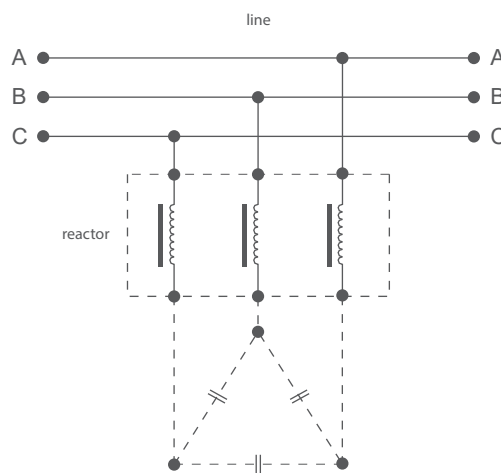
· class H

ambient temperature

· max 40°C



diagram



introduction

Power disturbance and harmonic distortion in electrical systems have proven to be fatal to equipment, cables, transformers, capacitor banks, etc. The situation has deteriorated further with the use of products such as variable speed drives, soft starters, rectifiers, UPS, discharge lamp, etc. These devices will generate or increase the harmonic distortion and high frequency interference in the power system. These disturbances will cause overheating to cables, transformer and related equipment, etc.

Detuned Harmonic Circuit Filter Reactor is used for:

- filtering harmonics and high frequency disturbance
- reduce high inrush current (from parallel switching of capacitors & from power to capacitor banks and thus improves the operating source life span of the capacitor)

Filtering % p is the ratio of inductance to capacitance. It is not to be confused with the impedance or reactance of an inductor.

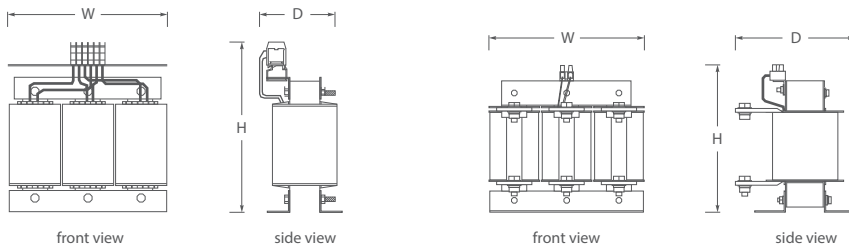
For a 50Hz system:

- p=7% = 189Hz is used where protection to capacitor and harmonics reduction is required
- p=6% = 204Hz is to be used where the system is rich in 5th harmonics and above
- p=13% = 139Hz is used where voltage distortion exceed permissible limit

Technical Data (p=7%)

- The reactor is manufactured to withstand 125% capacitor current (I_1) at its rated operating voltage.
- Harmonic current handling capacity (for p=7.0% detuned reactor):
 - $I_1 = 1.06 I_c$ (fundamental current)
 - $I_3 = 0.04 \times I_1$ (3rd harmonic)
 - $I_5 = 0.31 \times I_1$ (5th harmonic)
 - $I_7 = 0.13 \times I_1$ (7th harmonic)
 - $I_{th} = 1.25 \times I_1$
- Inductance tolerance is manufactured to be less than $\pm 5\%$.
- Reactor Linearity still within 95~105% of their nominal inductance at 150% rated current. This assured maximum filtering of distortion even in the presence of severe harmonics and best absorption of surges.
- Saturation of iron core: The reactor will not saturate (a drop of 10% of the nominal inductance at 175% of rated current).
- Insulation-Class H 180°C. (Class F 155°C available upon request).
- Operating Temperature: 120°C max. temperature rise at ambient temperature of 40°C.
Thermostat 130°C (NC) is fitted to coil windings for over temperature protection.
- Testing: insulation strength tested at 3kV @ 1 minute.
- Noise level: below 55dB - reactor not hum at no harmonics condition.

dimension



type A

type B

detuned harmonic circuit filter reactor 525V 50Hz 7%

technical specification

model	type	525V capacitor rated power (KVAR)	rated current (A)	inductance (mH)	overall dimension (mm)			weight (kg)
					w	d	h	
A5K07525	A	5	5.1	12.281	165	120	140	3.7
A10K07525	A	10	10.1	6.141	180	115	185	7.0
A15K07525	A	15	15.1	4.094	180	125	185	8.6
A20K07525	A	20	20.1	3.070	180	135	185	8.7
A25K07525	B	25	25.1	2.456	250	135	195	11.6
A30K07525	B	30	30.2	2.047	250	140	195	12.7
A40K07525	B	40	40.2	1.535	250	150	195	14.1
A50K07525	B	50	50.3	1.228	265	160	195	16.7
A60K07525	B	60	60.4	1.023	270	205	230	22.8
A75K07525	B	75	75.4	0.819	320	200	280	30.5
A80K07525	B	80	80.4	0.768	320	200	280	30.5
A100K07525	B	100	100.6	0.614	320	215	280	33
A120K07525	B	120	120.6	0.512	320	235	280	35.8
A150K07525	B	150	151.1	0.409	375	270	280	50
A160K07525	B	160	160.9	0.384	375	270	280	52.4
A200K07525	B	200	201.1	0.307	410	270	320	58
A300K07525	B	300	301.9	0.205	435	295	320	76

rated voltage
 · 3 x 415V 50Hz

% impedance
 · 4%

frequency
 · 50Hz

test voltage
 · 2.5kV

degree of protection
 · IP 00

rated current
 · refer to table

winding material
 · copper or aluminium
 · polyester enamelled wire
 155°C (Class F) &
 180°C (Class H)
 · fiberglass wire
 180°C (Class H)

reactor core
 · 0.5mm high grade silicon steel
 from Japan and Korea

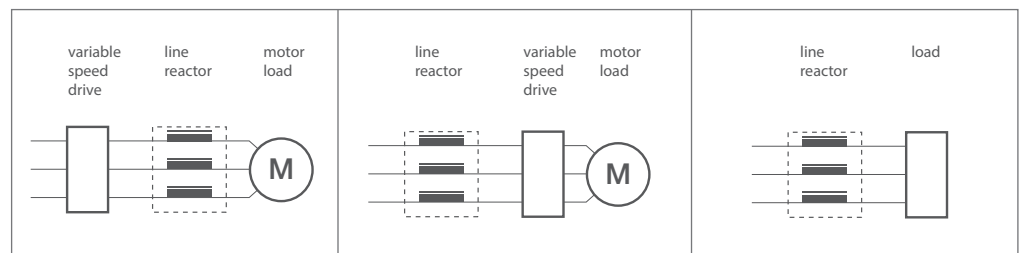
varnish
 · high grade high temperature
 polyester varnish

insulation class
 · class F or H

ambient temperature
 · max 40°C



diagram



line reactor:
 · reduce inrush current
 · reduce noise and temperature of the motor
 · increase the life span of semiconductors

line reactor:
 · suppresses interference and transients generated from the electrical system
 · smooth the harmonics
 · reduce inrush current
 · increase the life span of semiconductors

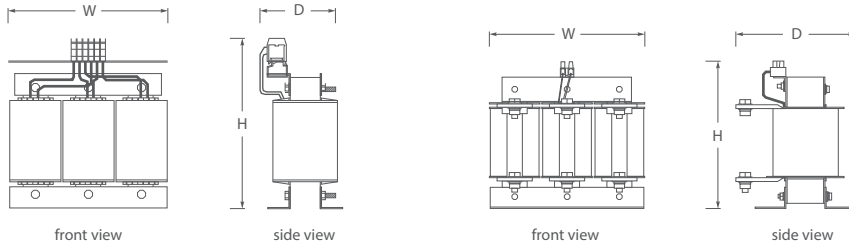
line reactor:
 · suppresses interference coming from the electrical system or load
 · smooth the harmonics
 · reduce inrush current

introduction

With the increase in demand for better quality products at minimum cost, new equipment or machines are being develop using electronic devices to meet individual requirements. One of the devices that has gone through tremendous improvement is the variable speed drive. However, variable speed drives are very sensitive to line fluctuations and other nuisance problems.

Line reactors offer an economical solution to a variety of problems especially in variable speed drive installations. They act as current limiting device, as well as filters for electrical noises and harmonics generated from the loads. It is applicable to either the input or the output of the drives.

dimension



type A

type B

3 phase line reactor 415V 50Hz 4%

technical specification

model	type	current (A)	inductance (mH)	dimensions (mm)			weight (kg)
				w	d	h	
3LR8	A	8	3.813	175	130	170	3.9
3LR12	A	12	2.542	210	110	220	5.8
3LR18	A	18	1.695	210	125	220	7.5
3LR28	B	28	1.089	210	150	160	8.7
3LR40	B	40	0.763	210	165	160	10.9
3LR50	B	50	0.610	240	170	210	15.0
3LR63	B	63	0.484	240	180	210	17.4
3LR80	B	80	0.381	270	180	210	19.1
3LR125	B	125	0.244	270	205	210	26.6
3LR160	B	160	0.191	300	200	260	34.7
3LR200	B	200	0.153	315	220	260	38.0

technical data

input voltage

- single phase: 230V ±12%
- three phase: 415V ±12%
- + neutral

output voltage (true rms)

- single phase: 230VAC ±1.5%
- three phase: 415VAC ±1.5%

rated kva

- single phase: 1KVA ~ 30KVA
- three phase: 3KVA ~150KVA

**output waveform/
distortion**

- sinewave/follow input

response time

- 0.05 ~ 0.07 sec/V

frequency

- 50 / 60Hz

efficiency

- > 95%

over current protection

- MCB / MCCB

operating temperature

- 0°C ~ 45°C

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 ±10% of nominal voltage while others ±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: 230VAC ±12%

Three Phase: 415VAC ±12% + Neutral (3 phase 4 wire)

- excellent output voltage accuracy of within ±1.5% set value.

- regulation correction time approximately 0.05 ~ 0.07 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 Stabilizer also designed to cater for unbalanced load. This made possible with its independent phase monitoring system.

QPS Automatic Voltage Stabilizer 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.

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 (for three phase only)

optional features

- surge protection device (SPD)
- phase loss (3 phase model) c/w programmable under / over voltage detector / phase sequence monitoring
- 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 ~ 15KVA)
- terminal block for hardwire – (model 3KVA ~ 30KVA)

three phase standard fittings

- over current breaker – (model 3KVA ~ 150KVA)
- voltmeter input – line / phase voltage – (model 30KVA ~ 150KVA)
- voltmeter output – (model 3KVA ~ 150KVA)

phase pilot lamp, input and output termination

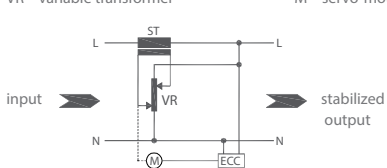
- terminal block – (model 3KVA ~ 150KVA)

diagram

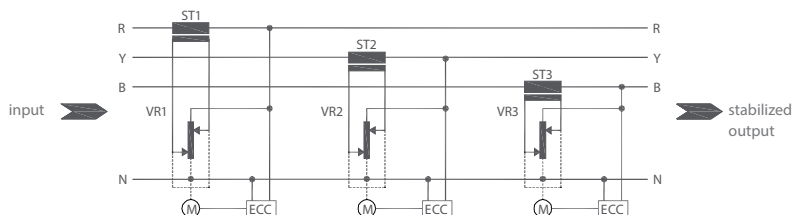
Single Phase & Three Phase Servo – Motor Voltage Stabilizer Block Diagram

Legend

- ST – series transformer
- VR – variable transformer
- ECC – electric control circuit
- M – servo-motor

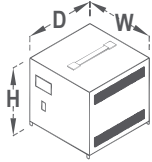


single phase avr / avr

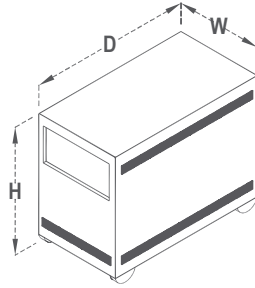


3-phase avr / avr independent phase control

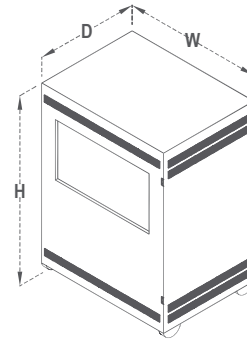
dimension



cabinet 1



cabinet 2



cabinet 3

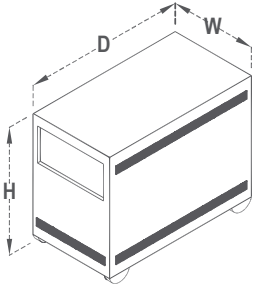
single phase V-series 230VAC

technical specification

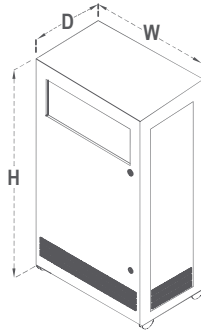
model	cabinet	power rated output (KVA)	rated / output current (A)	input voltage variation (%)	output accuracy	dimensions (mm) (+/-)			weight (kg) (+/-)
						h	w	d	
VSS1-2	1	1	4	230V ± 12%	±1.5%	183	200	220	8
VSS2-2	1	2	9	230V ± 12%	±1.5%	200	230	245	10
VSS3-2	1	3	13	230V ± 12%	±1.5%	283	260	330	23
VSS4-2	1	4	17	230V ± 12%	±1.5%	283	260	330	24
VSS5-2	1	5	22	230V ± 12%	±1.5%	283	260	330	24
VSS7-2	2	7.5	33	230V ± 12%	±1.5%	370	270	560	45
VSS10-2	2	10	43	230V ± 12%	±1.5%	370	270	560	50
VSS15-2	2	15	65	230V ± 12%	±1.5%	370	270	560	53
VSS20-2	3	20	87	230V ± 12%	±1.5%	640	400	375	57
VSS25-2	3	25	109	230V ± 12%	±1.5%	640	400	375	68
VSS30-2	3	30	130	230V ± 12%	±1.5%	640	400	375	73

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

dimension



cabinet 1



cabinet 2

three phase V-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	
VST3-4	1	3	4	415V ± 12%	±1.5%	530	295	460	32
VST6-4	1	6	8	415V ± 12%	±1.5%	530	295	460	36
VST10-4	1	10	14	415V ± 12%	±1.5%	660	360	600	75
VST15-4	1	15	21	415V ± 12%	±1.5%	660	360	600	78
VST20-4	1	20	28	415V ± 12%	±1.5%	660	360	600	96
VST25-4	1	25	35	415V ± 12%	±1.5%	660	360	600	107
VST30-4	1	30	42	415V ± 12%	±1.5%	700	380	810	115
VST40-4	1	40	56	415V ± 12%	±1.5%	700	380	810	128
VST45-4	1	45	63	415V ± 12%	±1.5%	700	380	810	134
VST50-4	1	50	70	415V ± 12%	±1.5%	700	380	810	136
VST60-4	1	60	84	415V ± 12%	±1.5%	700	380	810	180
VST75-4	1	75	104	415V ± 12%	±1.5%	815	475	1070	213
VST100-4	1	100	139	415V ± 12%	±1.5%	815	475	1070	248
VST125-4	1	125	174	415V ± 12%	±1.5%	815	475	1070	270
VST150-4	2	150	209	415V ± 12%	±1.5%	1490	660	580	385

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

technical data

input voltage

- single phase: 230V ± 15%
- three phase: 415V ± 15%/10%
+ neutral

output voltage (true rms)

- single phase: 230VAC ± 1.5%
- three phase: 415VAC ±1.5%

rated kva

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

output waveform/

distortion

- sinewave/follow input

response time

- 0.05 ~ 0.07 sec/V

frequency

- 50 / 60Hz

efficiency

- > 95%

operating temperature

- 0°C ~ 45°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 ±10% of nominal voltage while others ±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 ± 15%

Three Phase: 415V ± 15% + Neutral (3 phase 4 wire)

- excellent output voltage accuracy of within ±1.5% set value.

- regulation correction time approximately 0.05 ~ 0.07 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.

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

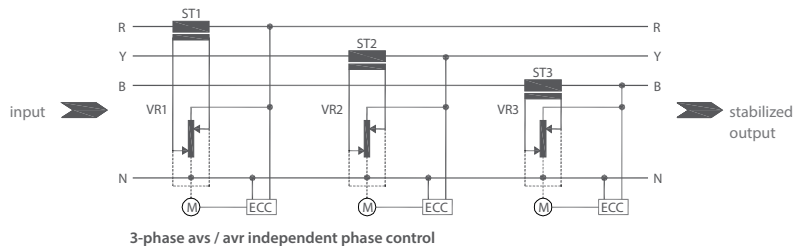
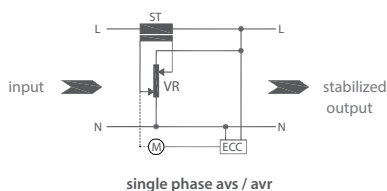
- over current breaker – (model 3KVA ~ 150KVA)
- phase selector switch for output voltmeter – (model 3KVA ~ 15KVA)
- phase selector switch for input & output voltmeter – (model 20KVA ~ 50KVA)
- phase selector switch for output voltmeter & ammeter – (model 60KVA ~ 200KVA)
- phase selector switch for input, 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

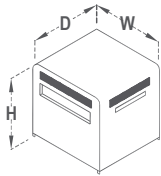
Legend

- ST – series transformer
- VR – variable transformer
- ECC – electric control circuit
- M – servo-motor

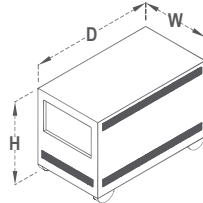


Note: All specifications are subject to change without prior notice for product improvement.

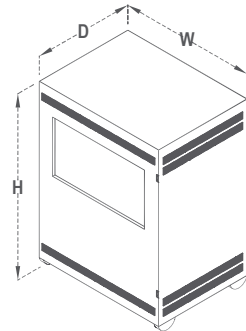
dimension



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 ± 15%	± 1.5%	260	280	335	12
S2-2	1	2	9	230V ± 15%	± 1.5%	260	280	335	14
S3-2	1	3	13	230V ± 15%	± 1.5%	260	280	335	21
S4-2	1	4	17	230V ± 15%	± 1.5%	260	280	335	21.5
S5-2	2	5	22	230V ± 15%	± 1.5%	275	260	500	34
S7-2	2	7.5	33	230V ± 15%	± 1.5%	370	270	560	40
S10-2	2	10	43	230V ± 15%	± 1.5%	370	270	560	46.5
S15-2	2	15	65	230V ± 15%	± 1.5%	370	270	560	54
S20-2	3	20	87	230V ± 15%	± 1.5%	640	400	375	64
S25-2	3	25	109	230V ± 15%	± 1.5%	640	400	375	75
S30-2	3	30	130	230V ± 15%	± 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.



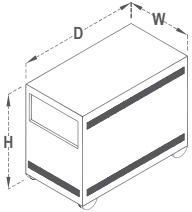
special casing



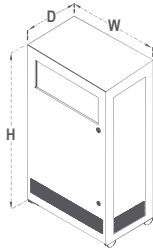
frame type



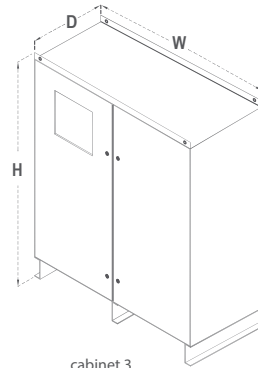
frame type



cabinet 1



cabinet 2



cabinet 3

three phase S-series 415VAC

technical specification

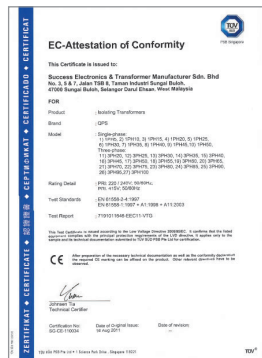
model	cabinet	power rated output (KVA)	rated / output current (A)	input voltage variation (%)	output accuracy	dimensions (mm) (+/-)			weight (kg) (+/-)
						h	w	d	
T3-4	1	3	4	415V±15%	± 1.5%	665	320	585	45
T6-4	1	6	8	415V±15%	± 1.5%	665	320	585	50
T10-4	1	10	14	415V±15%	± 1.5%	665	320	585	75
T15-4	1	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

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

- UKAS accredited ISO 9001 Quality Management System (QMS)
- Compliance with Low Voltage Directive (LVD) certified by TÜV SÜD
- CE Mark for transformers
- MyHIJAU Mark (Malaysia's green recognition scheme)
- Forbes 'Best Under A Billion' 2008/2009



ISO 9001:2015 BV UKAS



CE Mark for Transformer



MyHIJAU Mark



Forbes 'Best Under A Billion' 2008/2009



MyHIJAU Mark



Germanischer Lloyd



Nippon Kaiji Kyokai



Russian Maritime Register of Shipping



TÜV SÜD Mark



CE Mark



American Bureau of Shipping (ABS)



Det Norske Veritas (DNV)



Lloyd's Register Marine



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