Voltage Stabilisers

Mono matic
Tri matic

ICAR

CERT. N.9170 ICAR
CSQ
UNI EN 29001 (ISO 9001)
IQNet CERTIFIED QUALITY SYSTEM

Voltage stabiliser

The increase of voltage sensitive equipment has determined a continuous request for means able to guarantee the supply of steady voltage independently from mains variation.

The voltage stabiliser has proved to be an efficient tool in order to prevent from potential damages due to input voltage fluctuation.

A typical voltage stabiliser is able to respond to changes in the voltage level on the input line called sags (low voltage) and surges (high voltage).

Sags might be due to undersized distribution lines, connection of large loads to the network, ground faults.

Surges might be generated by disconnection of large loads, increased voltage at the generating plant, atmospheric events.

The duration of such phenomena depends on the cause and is not easily predictable.

Sags are generally more common especially where the distribution is not wide and efficient.

Other disturbances like spikes, transients, high frequency noise and harmonic distortion have to be treated with the addition of specific filtering systems.

Years of research and experience in this field have led to the production of technically valid, safe and reliable equipment.

The range of available voltage stabilisers includes:

- single-phase stabilisers (Monomatic);
- three-phase stabilisers with independent voltage regulation on each phase (Trimatic Y);
- three-phase stabilisers with voltage regulation based on the average value of the three phases (Trimatic A).

Why choose an electrodynamic stabiliser?

Choosing an electromechanical voltage stabiliser means:

- smooth and reliable regulation
- ±1% output accuracy
- admitted inrush current up to 8In
- negligible introduction of harmonic distortion
- high efficiency
- high ratings

How to choose a stabiliser.

Generally speaking, a stabiliser can be chosen on the basis of a few elements:

① Number of phases
② Rated voltage
③ Input variation range
④ Type of regulation
⑤ Rated power
⑥ Installation

Once these six points have been established, any other optional request can be dealt with separately

Possibile uses

A voltage stabiliser can be used in order to guarantee, for example, the correct functioning of:

- Laser cutting machines;
- computers;
- electronically driven machines;
- metrology and testing facilities;
- farms;
- private houses with high level of installed power (presence of pools, air conditioning units, pumps, etc.);
- special instrumentation.

Of course, the list is not exhaustive: contact our Sales Dept. for different applications.

	FREQUENCY	ADMITTED LOAD VARIATION	ADMITTED LOAD UNBALANCE	MAINS WAVEFORM DISTORTION	COOLING	AMBIENT TEMPERATURE	STORAGE TEMPERATURE	RELATIVE HUMIDITY INCREMENT	ADMITTED OVERLOAD	COLOUR	PROTECTION DEGREE
M	47/65Hz	0 a 100%	-	<0,2%	natural air convection	-15/+45°C	-20/+60°C	95%	200% 2 min	RAL 7032	IP 21
TA	47/65Hz	0 a 100%	up to 50%	<0,2%	mild ventilation	-15/+45°C	-20/+60°C	95%	200% 2 min	RAL 7032	IP 21
TY	47/65Hz	0 a 100%	up to 100%	<0,2%	mild ventilation	-15/+45°C	-20/+60°C	95%	200% 2 min	RAL 7032	IP 21

TECHNICAL SPECIFICATION

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	TYPE	RATED POWER (KVA)	INPUT VOLTAGE +/- 15/20% (V)	MAX INPUT CURRENT (A)	OUTPUT VOLTAGE +/- 1% (V)	RATED OUTPUT CURRENT (A)	EFFICIENCY (%)	RESPONSE TIME (MS/V)	DIMENSIONS (WXDXH)	WEIGHT (KG)
MONOMATIC SINGLE-PHASE STABILISER	100-15	1 / 0,7	230	4,7 / 3,8	230	4 / 3	>94	18	210x385x195	13
	250-15	2,5 / 2	230	13 / 11	230	11 / 9	>96	18	210x385x195	17
	500-15	5 / 4	230	26 / 22	230	22 / 17,5	>97	18	275x425x260	23
	700-15	7 / 5,5	230	36 / 30	230	31 / 24	>98	18	275x425x260	30
	1000-15	10 / 7,5	230	51 / 41	230	44 / 33	>98	18	300x565x280	40
	1500-15	15 / 10	230	77 / 54	230	65 / 44	>98	18	300x565x280	45
	2500-15	25 / 18	230	128 / 97	230	109 / 78	>98	20	405x670x1150	100
	3500-15	35 / 26	230	179 / 141	230	152 / 113	>98	20	405x670x1150	120
TRIMATIC A THREE-PHASE STABILISER	A5-15	5 / 4	400	8 / 7	400	7 / 6	>95	18 / 13	290x500x850	56
	A10-15	10 / 7,5	400	16 / 14	400	14 / 11	>96	18 / 13	290x500x850	70
	A15-15	15 / 12	400	25 / 21	400	21 / 17	>97	18 / 13	360x520x1000	100
	A20-15	20 / 15	400	33 / 26	400	28 / 21	>98	18 / 13	360x520x1000	130
	A30-15	30 / 24	400	50 / 42	400	43 / 34	>98	18 / 13	405x670x1150	170
	A50-15	50 / 36	400	84 / 64	400	71 / 51	>98	18 / 13	605x800x1400	240
	A75-15	75 / 60	400	126 / 107	400	107 / 86	>98	18 / 13	605x800x1400	320
	A105-15	105 / 80	400	176 / 143	400	150 / 114	>98	18 / 13	605x800x1400	420
	A135-15	135 / 105	400	227 / 187	400	193 / 150	>98	18 / 13	605x800x1600	510
	A175-15	175 / 135	400	297 / 244	400	253 / 195	>98	18 / 13	605x800x1600	600
TRIMATIC Y THREE-PHASE STABILISER	Y5-15	5 / 4	400	8 / 7	400	7 / 6	>95	18 / 13	290x500x850	55
	Y10-15	10 / 7,5	400	16 / 14	400	14 / 11	>96	18 / 13	290x500x850	65
	Y15-15	15 / 12	400	25 / 21	400	21 / 17	>97	18 / 13	360x520x1000	100
	Y20-15	20 / 15	400	33 / 26	400	28 / 21	>98	18 / 13	360x520x1000	120
	Y30-15	30 / 24	400	50 / 42	400	43 / 34	>98	18 / 13	405x670x1150	160
	Y50-15	50 / 36	400	84 / 64	400	71 / 51	>98	18 / 13	405x670x1150	180
	Y75-15	75 / 60	400	126 / 107	400	107 / 86	>98	18 / 13	605x800x1400	390
	Y105-15	105 / 80	400	176 / 143	400	150 / 114	>98	18 / 13	605x800x1400	420
	Y135-15	135 / 105	400	227 / 187	400	193 / 150	>98	18 / 13	605x800x1600	510
	Y175-15	175 / 135	400	297 / 244	400	253 / 195	>98	18 / 13	605x800x1600	610

The technical data in the above table are subject to be altered by the Company either because of internal reasons or following a specific request from the Customer

Founded in 1946, ICAR rapidly acquired and constantly maintained a leading position in the research and development of capacitors and products in which capacitors play a major role.
As a forerunner ICAR started developing metallized polypropylene capacitors in the early sixties.
Moreover ICAR realized, since the beginning, the importance of developing its own film metallization facilities, in order to have the control of the process from the base polypropylene film onwards to the finished capacitor.

In addition to the equipment described in the present catalogue, ICAR also produces and sells:

- Capacitors for industrial power factor correction
- LV and MV automatic power factor correctors
- Blocking capacitors
- Absorbing filters
- EMI/RFI filters
- Capacitors for motor start-up and running
- Lighting capacitors
- AC capacitors
- Capacitors for power electronics
- Energy storage and pulse capacitors
- High voltage DC generators

ICAR spa
Direzione generale e sede operativa
Via Isonzo, 10 - 20052 Monza (MI) Italy
Tel. ++39-039.83.951 - Fax ++39-039.83.32.27
www.icar.com sales@icar.com