EMi
VOLTAGE STABILISER TO SERVOMOTOR

EMi: Strength and precision at the service of voltage regulation

Today's industrial processes lie alongside a multitude of loads that we might define as 'difficult' – of marked reactive character, high intensity peaks (e.g.: motors), etc.– and which are also highly sensitive to variations in the power supply voltage.

In these cases, the voltage must be stabilised by using sufficiently strong devices and with suitable overloading capacity to face these loads without hardly needing power over sizing.

If to all of this we add high precision output (up to ± 1%), the result are the SALICRU **EMi** voltage stabilisers to servo motors, based on continuously adjusting self-transformers and made in a wide range of powers from 2 to 30 kVA in single phase structure and from 6 to 400 kVA in three-phase (higher powers to order).

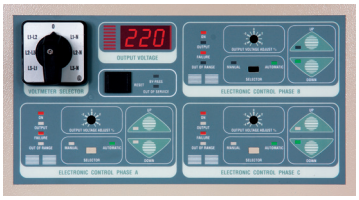
In the three-phase units it is also possible to choose between common regulation and independent regulation by phase, which gives more precise stabilisation on the loads connected to each of the phases. These are all controlled by a powerful microprocessor system and monitored by a complete synoptic.

PERFORMANCES

- Great robustness, admitting overloads of up to 1000% of the nominal.
- Output voltage stability better than 1% (adjustable) against static or dynamic variations.
- Control and testing of all the parameters without electro mechanical elements.
- In three-phase units, common regulation or independent by phase, immune to imbalances.
- Input regulation margin of ± 15%, standard (others to order).
- Output voltmeter, standard.
- Voltmeter switch in three-phase units, standard.
- Automatic transformer on unit output. (1)
- Maximum – minimum output voltage protections. (1)
- Fast speed.
- Efficiency > 95%, smaller operating cost.
- High reliability (long MTBF).
- Nil distortion.
- Wide range of powers.
- Three-phase configuration in star or triangle.
- Silent operation.
- Manual bypass. (1)

(1) Optional

EMI models



Three phase equipment synoptic
(Independent phase regulation)

APPLICATIONS: Effective protection in industrial processes

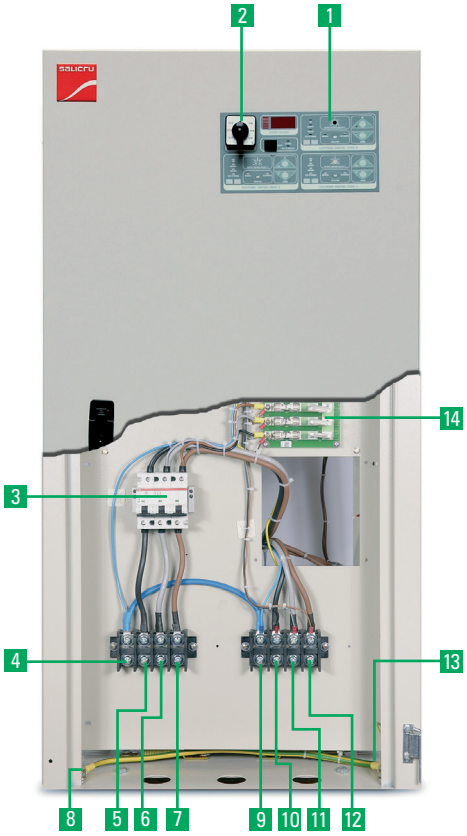
The present transformation industry profusely uses the so-called machine tools, which most of the time are highly sensitive to variations in their supply voltage: milling machines, grinding machines, presses, lathes, polishing machines, electro erosion machines and a long etc. deal with shaping solid materials.
The activations and the electrical movements, the numerical control, electric ovens or telecommunications repeaters are other applications inherent to this kind of equipment.

EMi

VOLTAGE STABILISER TO SERVOMOTOR

▸ DESCRIPTION

1. Synoptic.
2. Voltmeter voltage selector.
3. Magnetic thermal start/stop switch.
4. N neutral input terminal.
5. R phase input terminal.
6. S phase input terminal.
7. T phase input terminal.
8. Ground socket input terminal.
9. N phase output terminal.
10. U phase output terminal.
11. V phase output terminal.
12. W phase output terminal.
13. Linking ground output terminal.
14. Protection against voltage transients.



▸ Display and connections

▸ OPTIONS available

- Separator transformer (T).
- Ultra-isolation transformer.
- Maximum - minimum output voltage protections with manual or automatic reset.
- Magnetic thermal protection on the output.
- Gas discharger.
- Independent regulation by phase.
- Maintenance bypass.
- Caster installation kit.(1)

▸ SERVICES

- Pre-sale and after sales advisory service.
- Multiple formulae of maintenance and telemaintenance.

(1) Up to 35 kVA models as standard.

▸ TECHNICAL SPECIFICATIONS

MODEL		EMi
INPUT	Single phase voltage	120 V, 220 V, 230 V or 240 V
	Three phase voltage	3 x 208 V, 3 x 220 V, 3 x 230 V, 3 x 240 V, 3 x 380 V, 3 x 400 V or 3 x 415 V
	Regulation range	± 15%(2)
	Frequency	48 ÷ 63 Hz
	Power factor	> 0.95
OUTPUT	Single phase voltage	120 V, 220 V, 230 V or 240 V
	Three phase voltage	3 x 208 V, 3 x 220 V, 3 x 230 V, 3 x 240 V, 3 x 380 V, 3 x 400 V or 3 x 415 V
	Accuracy	± 1% selectable
	Output voltage setting	± 5%
	Nominal power	2 kVA up to 400 kVA
	Harmonic distortion	Nil
	Efficiency	> 95%
	Permissible overload (depending on the model)	200% for 2 min, 500% for 10 s, 1000% for 50 ms
GENERALS	Ambient temperature	- 10º C ÷ + 45º C
	Relative humidity	Up to 95%, non-condensing
	Maximum operating altitude	2400 m.a.s.l.
	Mean Time Between Failures (MTBF)	130,000 hours
	Mean Time To Repair (MTTR)	30 minutes
	Acoustic noise level at 1 metre	< 35 dB
	Cooling	Natural or forced depending on the power rate
	Electrical noise attenuation on common mode	With isolation transformer > 40 dB
		With ultra-isolation transformer > 120 dB
STANDARDS	Safety	EN 60950-1
	Electromagnetic Compatibility (EMC)	EN 61000-6-3; EN 61000-6-2
	Marking	CE
	Quality and Environmental management	ISO 9001 and ISO 14001 TÜV

(2) Other ranges under request

Data liable to changes without prior notice.

▸ RANGE(3)

MODEL	POWER (kVA)	DIMENSIONS (D x W x H mm)	WEIGHT (Kg)
M 2 - 2	2	680 x 340 x 240	26
M 3 - 2	3	680 x 340 x 240	29
M 4 - 2	4.5	680 x 340 x 240	35
M 7 - 2	7	680 x 340 x 240	52
M 9 - 2	9	340 x 240 x 680	54
M 12 - 2	12	630 x 390 x 520	82
M 15 - 2	15	635 x 440 x 640	94
M 20 - 2	20	635 x 440 x 640	117
M 30 - 2	30	635 x 440 x 640	150

Nomenclature, dimensions and weights for models: 230V 50Hz input / 230V 50Hz output and ± 15% input range

MODEL	POWER (kVA)	DIMENSIONS (D x W x H mm)	WEIGHT (Kg)
T 6 - 4	6	680 x 340 x 240	56
T 9 - 4	9	630 x 390 x 520	81
T 15 - 4	15	630 x 390 x 520	99
T 20 - 4	20	630 x 390 x 520	136
T 27 - 4	27	635 x 440 x 640	157
T 35 - 4	35	805 x 470 x 720	198
T 45 - 4	45	638 x 616 x 1318	272
T 60 - 4	60	638 x 616 x 1718	336
T 75 - 4	75	838 x 616 x 1718	369
T 90 - 4	90	838 x 616 x 1718	384
T 120 - 4	120	838 x 616 x 1718	433
T 150 - 4	150	838 x 616 x 1718	531
T 190 - 4	190	838 x 616 x 1718	633
T 225 - 4	225	838 x 616 x 1718	673
T 300 - 4	300	1038 x 816 x 2118	743
T 400 - 4	400	1038 x 816 x 2118	810

Nomenclature, dimensions and weights for models: 3 x 400V 50Hz input / 3 x 400V 50Hz output, with common regulation and ±15% input range
(3) Consult for independent phase regulation, isolation transformer versions and other configurations

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