STABILIZZATORI ELETTRONICI ED ELETTROMECCANICI

The range of ELIT voltage stabilizers includes:

STE SERIES
Single-phase electronic stabilizer ≤4.5kVA
(STC version with galvanic isolation)

STAB SERIES
Single-phase electromechanical stabilizer ≤50kVA
(STC E version with galvanic isolation)

STAB SERIES T
Three-phase electromechanical stabilizer ≤800kVA
(STC T version with galvanic isolation)

STAB SERIES S
Three-phase electromechanical stabilizer with independent regulation ≤800kVA
(STC S version with galvanic isolation)

STAB TPH SERIES
Three-phase electronic stabilizer up to 800kVA.

ELECTRONIC STABILIZER SINGLE PHASE STE SERIES

The electronic voltage stabilizers electronic voltage, STE series, guarantees an high efficiency and perfect output voltage stability. Made entirely with solid-state components and characterized by a very high speed of adjustment, the STE stabilizers are provided with a modern design, highly reliable, silent and they don't have magnetic dispersion, therefore they can be installed in any working environment and in proximity to any equipment. The adjustment of the output voltage is performed by a series of static switches controlled by an electronic circuit. The STE series is provided with an autotransformer which, together with a screen between input and output, allows the total elimination of any disturbance of the mains.

MODEL	STE 500	STE 1000	STE 2000	STE 4000
RATED POWER VA	500	1000	2000	4000
INPUT VOLTAGE Vac	230V -20% +15%			
OUTPUT VOLTAGE Vac	230 ±3%			
TOTAL SPEED REGULATION msec.	10			
LOAD VARIATION PERMITTED	from 0 to 100%			
POWER FACTOR	any			
HARMONIC DISTORTION	<0.5%			
EFFICIENCY	98%			
ENVIROMENTAL TEMPERATURE	-10/+40°C			
DIMENSION mm	160x130x335		220x200x500	
WEIGHT kgs	8	10	20	30
SAFE STANDARD	EN62040-1			
EMC STANDARD	EN62040-2			

ELECTROMECHANICAL STABILIZER

The ELIT electromechanical stabilizers don't introduce alterations to the waveform and they are able to supply loads with deformed current waveforms, without affecting the output voltage. Not being affected by the power factor the ELIT electromechanical stabilizers can feed any load, and their performance does not change with the variation of the load from 0 to 100%. The booster transformer allows you to exploit the full range of the voltage regulator and to circulate in the brushes only a fraction of the rated current.

The speed variator is driven by a dc motor which, in turn, it is controlled by an electronic control circuit completely static with two thresholds. The first is proportional to the error and the second is ON-OFF depending on the amount of correction needed. Also the brush position of the speed variator is electronically controlled.

The features shown here can be modified to meet the needs of the customer. The electromechanical regulators, described herein, exploiting the capacity of the system booster transformer + autotransformer with variable ratio to add or subtract voltage to the line on which the booster is connected in series. In fact, the speed variator is capable of feeding the primary of the booster transformer with a variable voltage, both in width and in polarity and consequently of transferring at the secondary in series with the line, a voltage that will be added vectorially to the voltage at the ends of the booster transformer.

A control board, fully static, acting on the ratio-motor mechanically connected to the brushes of the speed variator, allows to compensate for voltage variations in line.

In the case of three-phase stabilizers with independent phase adjustments, the system is realized with a star connection of 3 single phase stabilizers. Each single-phase stabilizer can adjust the voltage between its own phase and neutral, that must be present in input for a correct operation of the equipment. In this way it is able to supply loads with unbalanced input voltages up to 100% while maintaining the accuracy of the voltage to the load.

In this way the system appears to be with reduced dimensions and with an high efficiency. Because of the low impedance in series with the mains, the electromechanical stabilizer turns out to be insensitive to the power factor of the load, not introducing appreciable harmonic distortions too.

	STAB E	STAB T	STAB S
INPUT VOLTAGE	230V 1PH+N	400V 3PH+N	400V 3PH+N
INPUT WINDOW VOLTAGE	±15% (upper variations on request)		
SPEED REGULATION	16msec/V		
OUTPUT VOLTAGE ACCURANCY	±1%	±1%	±1%
MAX UNBALANCE LOAD	--	Up to 50%	from 0 to 100%
HARMONIC DISTORTION	< 0.2%		
OVERLOAD	200% for 2 minutes		
IP PROTECTION	IP 21 (upper on request)		
ENVIROMENTAL TEMPERATURE	-15°C ÷ +45°C		

ELECTRONIC STABILIZER THREE PHASE TPH SERIES

The load is always powered by the inverter with sinusoidal voltage and frequency stabilized, using the energy from the input mains.

	STAB TPH
INPUT VOLTAGE	400V 3PH+N
INPUT WINDOW VOLTAGE	±20%
TOTAL SPEED REGULATION	20msec
OUTPUT VOLTAGE ACCURANCY	Static stability ±1% Dynamic stability ± 3%
MAX UNBALANCED LOAD	from 0 to 100%
HARMONIC DISTORTION	< 2%
OVERLOAD	125% for 10 minutes 150% for 1 minute
IP PROTECTION	IP 21
ENVIROMENTAL TEMPERATURE	-15°C ÷ +45°C

ELITUPS
CONVERTITORI STATICI d'ENERGIA ELETTRICA

CATALOGO PRODOTTI

STABILIZERS

Rev. 1 Serie STAB

Product Code	Rated Power kVA (V±15%/±20%)	Input Voltage V	Output Current A	Speed Regulation	Stabilizer Dimensions WxDxH mm	Weight kgs
1PH ELECTRONIC STABILIZER STE SERIES						
STE2000	2000	-20 / +15%	8.69	10	280x238x620	22
STE4000	4000	-20 / +15%	13.04	10	280x238x620	34
1PH ELECTRONIC STABILIZER WITH INSULATION STC SERIES						
STC1000	1000	-20 / +15%	4.34	10	280x238x620	18
STC2000	2000	-20 / +15%	8.69	10	280x238x620	22
STC3000	3000	-20 / +15%	13.04	10	280x238x620	34
STC4500	4500	-20 / +15%	19.56	10	280x238x620	35
1PH ELECTROMECHANICAL STABILIZER STAB E SERIES						
STAB E4	4/3	.±15% / ±20%	17.4/13.0	16msec/V	300x300x240	22
STAB E6	6/4.5	.±15% / ±20%	26/19.5	16msec/V	300x300x240	26
STAB E10	10/7.5	.±15% / ±20%	43.5/32.6	16msec/V	300x520x240	36
STAB E15	15/11	.±15% / ±20%	65.0/48.0	16msec/V	300x520x240	45
STAB E20	20/15	.±15% / ±20%	87.0/65.0	16msec/V	300x500x520±	85
STAB E25	25/20	.±15% / ±20%	109/87.0	16msec/V	600x300x250	105
STAB E30	30	+/-15%	130	16msec/V	600x300x830	135
STAB E40	40	+/-15%	174	16msec/V	600x400x1100	185
STAB E50	50	+/-15%	217	16msec/V	600x400x1100	225
1PH ELECTROMECHANICAL STABILIZER WITH INSULATION STC E SERIES						
STC E1	1	+/-15%	5.2	16msec/V	300x500x240	35
STC E2	2	+/-15%	8.7	16msec/V	300x500x240	44
STC E4	4	+/-15%	17.4	16msec/V	300x500x520	65
STC E6	6	+/-15%	26	16msec/V	300x500x520	75
STC E10	10	+/-15%	43.5	16msec/V	600x300x870	90
STC E15	15	+/-15%	65	16msec/V	600x300x870	120
STC E20	20	+/-15%	87	16msec/V	600x300x870	166
3PH ELECTROMECHANICAL STABILIZER WITH UNIQUE REGULATION STAB T SERIES						
STAB T6	6/4.5	.±15% / ±20%	8.7 / 6.5	16msec/V	300x500x520	60
STAB T12	12/9	.±15% / ±20%	17 / 13	16msec/V	300x500x520	70
STAB T18	18/13.5	.±15% / ±20%	26 / 19	16msec/V	600x300x870	85
STAB T24	24/18	.±15% / ±20%	35 /26	16msec/V	600x300x870	110
STAB T30	30/22	.±15% / ±20%	43 / 32	16msec/V	600x300x870	130
STAB T40	40/30	.±15% / ±20%	58 /43	16msec/V	600x400x1100	145
STAB T50	50/36	.±15% / ±20%	72 /52	16msec/V	600x400x1100	160
STAB T60	60/45	.±15% / ±20%	87 / 65	16msec/V	600x400x1100	210
STAB T75	75/60	.±15% / ±20%	108 / 87	16msec/V	800x500x1500	270
STAB T100	100/75	.±15% / ±20%	144 / 108	16msec/V	800x500x1500	410
STAB T135	135	±15%	195	16msec/V	1000x500x1500	540
STAB T150	150	±15%	217	16msec/V	1000x500x1500	650
STAB T175	175	±15%	253	16msec/V	1200x500x1500	720
STAB T230	230	±15%	332	16msec/V	1200x500x1500	810
3PH ELECTROMECHANICAL STABILIZER WITH INDEPENDENT REGULATION STAB S SERIES						
STAB S6	6/4.5	.±15% / ±20%	8.7 / 6.5	16msec/V	300x500x520	67
STAB S12	12/9	.±15% / ±20%	17 / 13	16msec/V	300x500x520	77
STAB S18	18/13.5	.±15% / ±20%	26 / 19	16msec/V	600x300x870	92
STAB S24	24/18	.±15% / ±20%	35 / 26	16msec/V	600x300x870	120
STAB S30	30/24	.±15% / ±20%	43 / 32	16msec/V	600x300x870	140
STAB S40	40/30	.±15% / ±20%	58 / 43	16msec/V	600x400x1100	165
STAB S50	50/36	.±15% / ±20%	72 / 52	16msec/V	600x400x1100	180
STAB S60	60/45	.±15% / ±20%	87 / 65	16msec/V	600x400x1100	230
STAB S75	75/60	.±15% / ±20%	108 / 87	16msec/V	800x500x1500	300
STAB S100	100/75	.±15% / ±20%	144 / 108	16msec/V	800x450x1500	430
STAB S135	135	±15%	195	16msec/V	1000x500x1500	570
STAB S150	150	±15%	217	16msec/V	1000x500x1500	680
STAB S175	175	±15%	253	16msec/V	1200x500x1500	750
STAB S230	230	±15%	332	16msec/V	1200x500x1500	850

STABILIZERS

Rev. 1 Serie STAB

Product Code	Rated Power kVA (V±15%)	Input Voltage V	Output Current A	Speed Regulation	Stabilizer Dimensions WxDxH mm	Weight kgs
3PH ELECTROMECHANICAL REGULATION WITH INSULATION AND INDEPENDENT REGULATION STC S SERIES						
STC S6	6	.±15%	8.7	16msec/V	600x300x870	142
STC S12	12	.±15%	17	16msec/V	600x300x870	167
STC S18	18	.±15%	26	16msec/V	600x400x1100	212
STC S24	24	.±15%	35	16msec/V	600x400x1100	260
STC S30	30	.±15%	43	16msec/V	600x400x1100	312
STAB S40	40/30	.±15% / ±20%	58 / 43	16msec/V	600x400x1100	165
STAB S50	50/36	.±15% / ±20%	72 / 52	16msec/V	600x400x1100	180
STAB S60	60/45	.±15% / ±20%	87 / 65	16msec/V	600x400x1100	230
STAB S75	75/60	.±15% / ±20%	108 / 87	16msec/V	800x500x1500	300
STAB S100	100/75	.±15% / ±20%	144 / 108	16msec/V	800x450x1500	430
STAB S135	135	±15%	195	16msec/V	1000x500x1500	570
STAB S150	150	±15%	217	16msec/V	1000x500x1500	680
STAB S175	175	±15%	253	16msec/V	1200x500x1500	750
STAB S230	230	±15%	332	16msec/V	1200x500x1500	850
Product Code	**Rated Power kVA (V±20%)**	**Input Voltage V**	**Output Current A**	**Speed Regulation**	**Stabilizer Dimensions WxDxH mm**	**Weight kgs**
3PH ELECTRONIC STABILIZER STAB TPH SERIES						
STAB TPH KING 10 ST	10/9	3F+N		20	440x850x1320	105
STAB TPH KING 15 ST	15/13.5	3F+N		20	440x850x1320	115
STAB TPH KING 20 ST	20/18	3F+N		20	440x850x1320	120
STAB TPH KING 30 ST	30/27	3F+N		20	440x850x1320	135
STAB TPH KING 40 ST	40/36	3F+N		20	440x850x1320	145
STAB TPH KING 60 ST	60/54	3F+N		20	500x850x1600	190
STAB TPH KING 80 ST	80/72	3F+N		20	500x850x1600	200
STAB TPH KING 100 ST	100/90	3F+N		20	500x850x1850	220
STAB TPH IGBT 120	120/108	3F+N		20	800x850x1900	785
STAB TPH IGBT 160	160/144	3F+N		20	1000x850x1900	850
STAB TPH IGBT 200	200/180	3F+N		20	100x850x1900	990