

MODEL	1PHASE ELECTRA POWER STABILIZER									3PHASE ELECTRA POWER STABILIZER								
	EL-AVR2K	EL-AVR5K	EL-AVR10K	EL-SVC3K	EL-SVC5K	EL-SVC10K	EL-SVC15K	EL-SVC20K	EL-SVC30K	EL-TN9K	EL-TN15K	EL-TN20K	EL-TN30K	EL-TN60K	EL-TN90K	EL-SB100K	EL-SB150K	EL-SB200K
Product PICTURES																		

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INPUT SPEC.																			
Power (KVA)	2	5	10	3	5	10	15	20	30	9	15	20	30	60	90	100	150	200	
Technology Design	Electronic Relay tap changer			Servo Motor Digital Controller						Servo Motor Digital Controller						Servo Motor Digital Controller			
Topology	5 Compound Electronic Relays			Toroidal Variac with Single side motor			Toroidal Variac with Double side motors			3Toroidal Variac with Single side motor			3Toroidal Variac with Double side motors			3 Vertical Variac with Double side motors			
Wiring Connection	1P + N + PE			IP + N + PE						3P + N + PE						3P + N + PE			
Voltage Level (Vac)	220/230			220/230						380/400						380/400			
Voltage Range (%)	-35% to +25% (cut-off)			-30% to +20% (cut-off)			-30% to +30% (cut-off)			-25% to +15% (cut-off)			-20% to +20% (cut-off)			-20% to +20% (cut-off)			
Voltage Cut-off (Vac)	140 to 275 Vac (cut-off)			155 to 260 Vac (cut-off)			155 to 285 Vac (cut-off)			285 to 440 Vac (cut-off)			304 to 456 Vac (cut-off)			304 to 456 Vac (cut-off)			
Voltage (Full Load)	170 to 275 Vac (Full Load)			190to 250 Vac (Full Load)			190 to 250 Vac (Full Load)			340 to 430 Vac (Full Load)			340 to 430 Vac (Full Load)			340 to 430 Vac (Full Load)			
current (A)	9	23	45	13.5	23	45	68	90	136	13.5	23	30	45	90	136	151	227	303	
Input Breaker	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCCB	MCCB	MCB	MCB	MCB	MCB	MCCB	MCCB	MCCB	MCCB	MCCB	
Frequency (Hz)	45-65 Hz			45-65 Hz						45-65 Hz						45-65 Hz			
THD V	Not Effect			Less than 1.0% THD added to the output waveform under any dynamic linear loading conditions presented to the line regulator						Less than 1.0% THD added to the output waveform under any dynamic linear loading conditions presented to the line regulator						Less than 1.0% THD added to the output waveform under any dynamic linear loading conditions presented to the line regulator			
Wiring Connector	Socket	Terminal		Standard Bakelite Terminal Block						Standard Bakelite Terminal Block						High Current Isolated Screw Block			

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OUTPUT SPEC.																						
Power Factor	1			0.8						0.8						0.8						
Voltage Level (Vac)	220/230			220/230						380/400						380/400						
Voltage Precision (%)	8%			2%						2%						2%						
Frequency (Hz)	45-65 Hz (Input follow)			45-65 Hz (Input follow)						45-65 Hz (Input follow)						45-65 Hz (Input follow)						
Efficiency (%)	97%			96%						96%						96%						
Current input	9A	23A	45A	11A	18.5A	36A	54A	72A	109A	11 A/Ph	18.5 A/Ph	24 A/Ph	36 A/Ph	72 A/Ph	108 A/Ph	121 A/Ph	181 A/Ph	242 A/Ph				
Current input	6.3A	16.1A	31.5A	7.6A	12.7A	25.5A	38.2A	51A	76A	8 A/Ph	13 A/Ph	17 A/Ph	26 A/Ph	51 A/Ph	76 A/Ph	85 A/Ph	127 A/Ph	170 A/Ph				
Current input	4.5A	11.5A	22.5A	5.5A	9A	18A	27A	36A	54A	5.5 A/Ph	9 A/Ph	12 A/Ph	18 A/Ph	36 A/Ph	54 A/Ph	60 A/Ph	90 A/Ph	121 A/Ph				
Response Time Start	1 cycle	1 cycle	1 cycle	1.5 cycle	1.5 cycle	1.5 cycle	1.5 cycle	1.5 cycle	1.5 cycle	1 cycle	1 cycle	1 cycle	1 cycle	1 cycle	1 cycle	1 cycle	1 cycle	1 cycle				
Regulation Speed	20 V/Step			60 V/Sec			80 V/Sec			60V/Sec			80 V/Sec			90 V/Sec						
Harmonic THD	Not Effect			Not Effect						Not Effect						Not Effect						
Overload :195-250V	3 Sec 150% load			2 Sec 150% load			2 Sec 150% load			2 Sec 150% load						4 Sec 150% load						
Monitoring	2 Digital Input/Output voltmeter			2 Digital Input/Output voltmeter						3 Digital Input Ampere + 1 Digital 3phase Voltmeter						7 Digital Ampere & Voltmeter						
Delay time selection	Short time: 5sec / Long time: 180sec			Short time: 5sec / Long time: 180sec						Short time: 5sec / Long time: 180sec						5sec / 180sec						
Output Breaker	Electronic Relay			Electronic Relay			Power Relay			AC Contactor			AC Contactor						AC Contactor			
Wiring Connector	Socket			Terminal			Standard Bakelite Terminal Block						Standard Bakelite Terminal Block						High Current Isolated Screw Block			

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<b>ENVIRONMENTAL</b>																																				
Working Temp.	-15° to +45° Centigrade									-15° to +45° Centigrade																										
Storage Temp.	-20° to +55° Centigrade									-20° to +55° Centigrade																										
Relative Humidity	≤ 90%, DIN40040									≤ 90%, DIN40040																										
Working Altitude	3000 meters									3000 meters																										
Acoustic Noise	<50dB									<50dB																										
Cooling System	Natural	Smart AC Fan		Natural	Smart AC Fan					3 separated Smart AC Fan						3 Smart AC Fan																				
<b>SYSTEM PROTECTION</b>																																				
Ingress Protection	IP21									IP21																										
Over Voltage	cut off the input in 20ms when output voltage is higher than 10%									cut off the input in 20ms when output voltage is higher than 10%																										
Under Voltage	cut off the input in 20ms when output voltage is lower than 10%									cut off the input in 20ms when output voltage is lower than 10%																										
Over Current	Cutoff the input AC by MCB/MCCB									Cutoff the input AC by MCB/MCCB																										
Short Circuit	Shut down the output AC Relay or Contactor by Electronic Detector									Shut down the output AC Relay or Contactor by Electronic Detector																										
Phase Sequence	---									Detect by Phase controller and shut down the output																										
Phase Loss	---									Detect by Phase controller and PCB																										
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<b>OTHERS</b>																																				
Manual Bypass	---		YES (One Way MCB)						YES (Knife Switch)						YES (Knife Switch)																					
Insulation Resistance	≥ 2MΩ									≥ 2MΩ																										
Adjustable Sensitivity	---		Yes (by order)						Yes (by order)						---																					
Changing Motor Speed	---		Yes (by order)						Yes (by order)						---																					
Standards	EN 61000-6-2, EN61000-6-4, EN61558-1, ISO9001									EN 61000-6-2, EN61000-6-4, EN61558-1, ISO9001																										
<b>DIMENSION</b>																																				
W-D-H (cm)	20x30x28		22x35x28			34x42x52		36x40x68		50x45x80			36x46x88		51x51x97		65x65x123		73x65x137		120x95x155		140x110x155													
Weight (Kg)	10		16		23		13.5		20		34		61		95		120		72		80		120		145		250		300		490		630		810	