

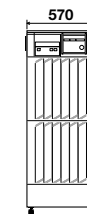
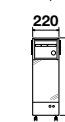
Number of Phases		Single Phase										Three-/Single-Phase Switching			Three Phases												
Output Power		2 kVA	4 kVA	6 kVA	8 kVA	10 kVA	12 kVA	14 kVA	16 kVA	18 kVA	20 kVA	6 kVA*12	12 kVA	18 kVA	12 kVA	18 kVA	24 kVA	30 kVA	36 kVA	42 kVA	48 kVA	54 kVA	60 kVA				
Configuration	Component Style *1	ES 2000S	1	1	1	1	1	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—			
		ES 2000U	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—			
		ES 2000P	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—			
	ES 2000B	—	1	2	3	4	5	6	7	8	9	—	—	—	3	6	9	12	15	18	21	24	27				
Cabinet Style	Model	/		ES 6000S	ES 8000S	ES 10000S	ES 12000S	/				ES 18000S	ES 6000W	ES 12000W	ES 18000W	/			ES 24000T	/					ES 36000T		
	S type Cabinet			1	1	—	—					1	1	—	1				—						1	3	—
	L type Cabinet			—	—	1	1					—	—	1	1				—						—	—	3
Output Type		Single-phase two-wire system										Three-phase four-wire system (Y-connection), (Two-phase system in single phase mode)															
Output Voltage Setting Range	100 V Range	0 V to 150 V (resolution of 0.1 V) For three-phase systems, this applies when setting phase voltage. (rated output voltage: 100 V rms)																									
	200 V Range	0 V to 300 V (resolution of 0.1 V) For three-phase systems, this applies when setting phase voltage. (rated output voltage: 200 V rms)																									
Maximum Output Current *3	Single Phase (100V/200V)	20A/10A	40A/20A	60A/30A	80A/40A	100A/50A	120A/60A	140A/70A	160A/80A	180A/90A	200A/100A	60A/30A	120A/60A	180A/90A	—	—	—	—	—	—	—	—	—	—			
	Three Phase*3 (100V/200V)	—																									
Maximum Output Current (Peak) *5		Precision mode: 3.5 times of maximum output current (rms value), High stability mode: 2.7 times of maximum output current (rms value)																									
Load Regulation *6	Precision Mode	Within ±0.5 %										Within ±1.0%	Within ±0.5%	Within ±1.0%	Within ±0.5%			Within ±1.0%									
	High Stability Mode	Within ±1.0 %										Within ±1.5%	Within ±1.0%	Within ±1.5%	Within ±1.0%			Within ±1.5%									
Line Regulation		Within ±0.2 % to the change in power input voltage of 170 V to 250 V (Component style) and 170 V to 220 V (Cabinet style) at rated output voltage																									
Load Power Factor Range *7		0 to 1 (lead or lag)																									
Distortion Factor		0.5 % or lower (rated output voltage)																									
Output Frequency		Setting range : 5 Hz to 1100 Hz (resolution of 0.01 Hz), Setting accuracy : Within ±1×10 ⁻⁴ , Stability : Within ±5×10 ⁻⁵																									
Line Synchronization		Outputs AC synchronized with power line frequency (Synchronization range: 48 Hz to 62 Hz)																									
Output Voltage Stability		±100 ppm/°C (typ.), ±100 ppm/8h (typ.), (rated output voltage, no load, more than one hour after turning on power)																									
Output Noise Level		300 mVrms or lower (Output voltage setting : 0 V, Frequency band : 20 Hz to 100 kHz)																									
Output Offset Voltage		Within ±15 mV (DC)																									
Three-Phase Phase Angle *8		—										120°															
Three-Phase Phase Angle Accuracy	40Hz to 100Hz	—										Within ±1°															
	5Hz to 450Hz	—										Within ±2°															
	5Hz to 1000Hz	—										Within ±5°															
Voltage Setting Range	100 V Range	0 V to + 203 V (resolution of 0.1 V)														—											
	200 V Range	0 V to + 406 V (resolution of 0.1 V)														—											
Maximum Output Current *10	Single Phase (100V/200V)	9A/4.5A	18A/9A	27A/13.5A	36A/18A	45A/22.5A	54A/27A	63A/31.5A	72A/36A	81A/40.5A	90A/45A	27A/13.5A	54A/27A	81A/40.5A	—	—	—	—	—	—	—	—	—	—			
Output Voltage Stability		±500 ppm/°C (typ.), ±500 ppm/8h (typ.) (rated output voltage, no load, more than one hour after turning on power)																									
Power Capacity		1.27 kVA	2.54 kVA	3.81 kVA	5.08 kVA	6.35 kVA	7.62 kVA	8.89 kVA	10.16 kVA	11.43 kVA	12.70 kVA	3.81 kVA	7.62 kVA	11.43 kVA	—	—	—	—	—	—	—	—	—	—			
Output Offset Voltage		Within ±500 mV (DC), adjustable																									
Voltage		Component style : 170 V to 250 V, Cabinet style : 170 V to 220 V																									
Frequency		48 Hz to 62 Hz																									
Number of Phases		Component style : Single phase, Cabinet style: Three phases																									
Power Consumption (Approx.)		3.8 kVA	7.6 kVA	11.4 kVA	15.2 kVA	19.0 kVA	22.8 kVA	26.6 kVA	30.4 kVA	34.2 kVA	38.0 kVA	11.4 kVA	22.8 kVA	34.2 kVA	22.8 kVA	34.2 kVA	45.6 kVA	57.0 kVA	68.4 kVA	79.8 kVA	91.2 kVA	102.6 kVA	114.0 kVA				
Power Factor		0.90 or higher (0.97 typ., at rated output)																									
Functions	Measurement Function *11	Voltage *12	rms value: resolution of 0.1 V, AC accuracy of ±1 %, DC accuracy of ±3 % (480 V range)										peak value: resolution of 0.1 V, AC/DC accuracy of ±3 % (480 V range)														
		Current *12	rms value: resolution of 0.01 A (80 A range) / 0.1 A (800 A range), AC accuracy of ±1 %, DC accuracy of ±3 %										peak value: resolution of 0.01 A (80 A range) / 0.1 A (800 A range), AC/DC accuracy of ±3 %														
		Effective Power *12	Resolution of 0.1 W (2 kW range) / 1 W (20 kW range) / 10 W (200 kW range), accuracy of ±(1.5 % rdg + 0.2 % FS)																								
		Reactive Power, Power Factor	Displays after calculating from measurement result of voltage, current, and effective power.																								
Simulation Function		Abrupt voltage change and frequency and/or voltage sweep functions																									
External Signal Input (Option) *13		Input impedance: 100 kΩ, unbalanced, Input frequency range: 5 Hz to 1 kHz, Maximum input voltage: ±5 V, Gain: 100 times																									
Other Functions		Protective function, AGC*14*15, Remote sensing*14*15, Auto Cal*15, Memory function, Limit value setting, and Key lock																									
Withstanding Voltage		AC 1500 V rms /min. (50/60 Hz) Chassis and all power inputs vs. outputs, and chassis and all outputs vs. power inputs																									
Insulation Resistance (DC 500 V)	Component	10 MΩ or higher (value divided by the number of units when multiple units are used) Chassis and all power inputs vs. outputs, and chassis and all outputs vs. power inputs																									
	Cabinet	—	—	3.3 MΩ min.	2.5 MΩ min.	2.0 MΩ min.	1.6 MΩ min.	—	—	S:3.3MΩ min. L:1.6MΩ min.	—	3.3 MΩ min.	1.6 MΩ min.	S:3.3MΩ min. L:1.6MΩ min.	—	—	S: 2.5MΩ min. (each)	—	L: 1.6MΩ min. (each)	—	—	—	—				
Performance Temperature/Humidity Range	Performance Guarantee	+5 to +35°C, 5 to 80% RH with absolute humidity of 1 to 25g/m³ and no condensation																									
	Operation Guarantee	0 to +40°C, 5 to 80% RH with absolute humidity of 1 to 25g/m³ and no condensation																									
	Storing Conditions	-10 to +50°C, 5 to 95% RH with absolute humidity of 1 to 29g/m³ and no condensation																									
Weight (Approx.)	Component	48 kg	96 kg	144 kg	192 kg	240 kg	288 kg	336 kg	384 kg	432 kg	480 kg	144 kg	—	—	288 kg	432 kg	576 kg	720 kg	864 kg	1008 kg	1152 kg	1296 kg	1440 kg				
	Cabinet	—	—	200 kg	250 kg	320 kg	370 kg	—	—	570 kg	—	200 kg	370 kg	570 kg	—	—	750 kg	—	1110 kg	—	—	—	—				

The following conditions apply unless otherwise specified.
The unit of voltage and current is rms with rated load (pure resistance load that obtains rated power at rated output voltage, AGC: Off, Remote sensing: Internal)

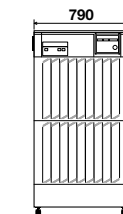
- *1 Separate system cable required for systems with three-phase 24 kVA or higher in component style.
- *2 ES 4439 required for component style products.
- *3 Maximum output current lowers depending on output voltage and output frequency.
- *4 Current per phase.
- *5 45 Hz to 70 Hz. The ratio of rms value to the peak value of the current that runs through the capacitor-input type rectifier load.
- *6 Output voltage change for the load change of 0 to 100 % at the rated output voltage. 45 Hz to 100 Hz.
- *7 The power factor range of the load that can supply maximum output current narrows down for higher frequency.
- *8 The phase sequence is L2 phase (delay of 120 degrees) and L3 phase (delay of 240 degrees) for L1 phase (0 degree)
- *9 Effective only in single-phase operations. High stability mode operation.
- *10 Maximum output current lowers depending on the output voltage.
- *11 Measurement range switches automatically.
Peak value detects negative waveform for both of voltage and current, and positive waveform for DC.
- *12 Accuracy is given for full scale (FS). Full scale indicates the range value.
- *13 Operates only in AC Output Mode
- *14 The waveform clips when the output is changed suddenly. The range shall be from 50 V to 300 V at the output terminal.
- *15 Effective only in AC output mode.

[External Dimensions]
(Excluding protruding sections)

● Component Style
220(W)×649(H)×680(D)



● S-Type Cabinet
570(W)×1480(H)×900(D)



● L-Type Cabinet
790(W)×1480(H)×900(D)