4. Electrical Requirements

(1) UPS

Item			Ratings and Characteristics		Remarks
Type	Model No.		E11B102U002TH		
	Type No.		E11B102AA02AMTH / E11B102AA02DMTH		
	Topology		Hybrid / Double Conversion online		Automatic switching of operation mode (Fixed setting is available.)
	Operation mode		Economy mode	Double Conversion mode	(Note 1)
	Inverter system		-	High frequency PWM	
	Cooling method		Forced air cooling		
AC input	Rated voltage		230 V		Same as AC output
	Voltage range		Within ±8%	At load level < 40%: 110 to 300 V At load level < 70%: 136 to 288 V At load level ≥ 70%: 160 to 288 V	(Note 2) (Note 4)
	Rated frequency		50 / 60 Hz		Auto-sensing (Note 3)
	Frequency range		Within ±1/3/5%	40-120 Hz	Same setting as output frequency regulation (Note 3)
	No. of phases/wires		Single-phase 2-wire		(Note 5)
	Required capacity		1.1 kVA or less		Max. capacity during battery charging
	Power factor		Same as load power factor	0.95 or more	At rated output
AC output	Rated capacity		1 kVA / 0.8 kW		
	No. of phases/wires		Single-phase 2-wire		
	Rated voltage		230 V		Settings cannot be changed
	Voltage waveform		-	Sine wave	
	Voltage regulation		Within -10 to +8%	Within ±2%	(Note 4)
	Rated frequency		50 / 60 Hz		Same as input frequency
	Frequency regulation	Normal operation	Within ±1/3/5%	In automatic setting Within ±1/3/5%	Frequency regulation setting can be changed. (Default: ±3%) Setting cannot be changed when operation mode is fixed. During asynchronous operation: Within ±0.5% (Note 3)
				When Double Conversion mode is fixed. Within ±1%	
		Battery operation	Within ±0.5%		
	Voltage harmonic distortion	At linear load	-	3% or less	At rated output
		At rectifier load	-	8% or less	
	Transient voltage fluctuation	Abrupt input voltage change	-	Within ±5%	For ±10% rapid voltage changes (Note 7)
		Rapid load change			For 0⇔100% load step changes
		Loss or return of input power			At rated output
		Response time		5 cycles or less	
	Rated load power factor		0.8 (lagging)		Variation range: 0.7 (lagging) to 1.0
	Overload capacity	Inverter	-	105%, 200 ms	Automatic transfer to bypass (Note 6)
		Bypass	200%, 30 s 800%, 2 cycles		
Heat dissipation			25 W	130 W	After battery charging
Noise			40 dB or less	48 dB or less	1 m from front of device, A-weighting
Input leakage current			3 mA or less		

Note 1: There are two operation mode settings: “Auto” and “Fixed Double Conversion mode.” For the “Auto” setting, the following operation modes are automatically switched depending on the power environment you are using.