CertaUPS C500E Data Sheet

	C500E-100-B		C500E-200-B	
INPUT	1 Phase	3 Phase	1 Phase	3 Phase
Acceptable Input Voltage M1	110VAC-276VAC	190VAC-478VAC	110VAC-276VAC	190VAC-478VAC
Adjustable Bypass Voltage M2	110VAC-276VAC	190VAC-478VAC	110VAC-276VAC	190VAC-478VAC
Phase	Single phase with ground (L-N-G)	Three phase with ground (R-S-T-N-G)	Single phase with ground (L-N-G)	Three phase with ground (R-S-T-N-G)
Transfer Voltage Range	Based on load percentage 100%/50%	Based on load percentage 100%/50%	Based on load percentage 100%/50%	Based on load percentage 100%/50%
-Line low loss	176VAC/110VAC (±3%)	305VAC/190VAC (±3%)	176VAC/110VAC (±3%)	305VAC/190VAC (±3%)
-Line low comeback	186VAC/120VAC (±3%)	322VAC/208VAC (±3%)	186VAC/120VAC (±3%)	322VAC/208VAC (±3%)
-Line high loss	276VAC (±3%)	478VAC (±3%)	276VAC (±3%)	478VAC (±3%)
-Line high comeback	266VAC (±3%)	461VAC (±3%)	266VAC (±3%)	461VAC (±3%)
THDi	<5% with full load	<5% with full load	<5% with full load	<5% with full load
Input Power Factor	≥0.99(FULL LOAD)	≥0.99(FULL LOAD)	≥0.99(FULL LOAD)	≥0.99(FULL LOAD)
Input Frequency Range	45-55Hz / 54-66Hz	45-55Hz / 54-66Hz	45-55Hz / 54-66Hz	45-55Hz / 54-66Hz
Generator Set	1.8 x UPS Rating Power	1.8 x UPS Rating Power	1.8 x UPS Rating Power	1.8 x UPS Rating Power
OUTPUT				
Power				
-Power(kVA) max	10.0		20.0	
-Power(kW) max	9.0		18.0	
-Power Factor	0.9 (Default)		0.9 (Default)	
	0.6 - 1 (Flexible)		0.6 - 1 (Flexible)	
-Load Power Factor Range	0.5 lagging to 1.0		0.5 lagging to 1.0	
Output Voltage				
-Waveform	Pure sine wave		Pure sine wave	
-Nominal voltage	200VAC*/208VAC/220VAC/230VAC/240VAC		200VAC*/208VAC/220VAC/230VAC/240VAC	
-Voltage regulation	± 1 %		± 1 %	
-Transient recovery	60ms (IEC 62040-3 Non-linear load)		60ms (IEC 62040-3 Non-linear load)	
-Transient response(0%-100%-0%, R)	≦ 7 %		≦ 7 %	
-Transient response(20%-100%-20%, R)	≦ 4 %		≦ 4 %	
-Voltage distortion	≦ 2% THD, linear load		≦ 2% THD, linear load	
	≦ 5% THD, non-linear load		≦ 5% THD, non-linear load	
Output Frequency				
-Synchronization range	45-55Hz / 54-66Hz**		45-55Hz / 54-66Hz**	
-Slew rate	1 Hz/s		1 Hz/s	
-Battery mode	(50/60±0.05) Hz**		(50/60±0.05) Hz**	
Transfer Time				
-Inverter Mode to Battery Mode.	0ms		0ms	
-Inverter Mode to Bypass Mode.	0ms		0ms	
-Inverter Mode to ECO Mode.	0ms		0ms	
-ECO Mode to Inverter Mode	0ms***		0ms***	
-ECO Mode to Inverter Mode	<10ms		<10ms	
Full Load Efficiency				
-Line mode with battery full charged	94%		94%	
-Battery mode @ 12Vdc/Battery	93%		93%	
-ECO mode	98%		98%	
Overload Capability (Line Mode)	100%～110% : 5 min		100%～110% : 5 min	
	110%～130% : 1 min		110%～130% : 1 min	
	130%~150% : 10 s		130%~150% : 10 s	
	>150% : 2 s		>150% : 2 s	
Overload Capability (BAT Mode)	100%～110% : 5 min		100%～110% : 5 min	
	110%～130% : 1 min		110%～130% : 1 min	
	130%~150% : 10 s		130%~150% : 10 s	
	>150% : 2 s		>150% : 2 s	
Crest Ratio	3:1		3:1	
Parallel	UP to 4 for capacity or redundancy		UP to 4 for capacity or redundancy	
BATTERY				
Rating/Type	12VDC/9Ah		12VDC/9Ah	
Back-up Time (full load)	Internal battery: 5 minutes External battery: Depend on the capacity of external batteries		Internal battery: 5 minutes External battery: Depend on the capacity of external batteries	
Quantity	24*1 (can be doubled)		24*2	
DC Voltage	288VDC		288VDC	
Battery-Low Voltage	273.6VDC		273.6VDC	
Battery Shutdown Voltage				
- 0 ～ 30% Load	256.8VDC, 10.7V/pcs		256.8VDC, 10.7V/pcs	
- 30 ～ 70% Load	244.8VDC, 10.2/pcs		244.8VDC, 10.2/pcs	
- > 70% Load	228VDC, 9.5V/pcs		228VDC, 9.5V/pcs	
Charger				
- Constant Current + Constant Voltage Phase	4.0A + 345.6VDC, 14.4V/pcs		4.0A + 345.6VDC, 14.4V/pcs	
- Floating Voltage Phase	327.6VDC, 13.65/pcs		327.6VDC, 13.65/pcs	
-Charging current (max)	4.0A / 8.0A(Optional)		4.0A / 8.0A(Optional)	
-Charging time	Internal battery: 3h charge to 90% External battery: Depend on the capacity of external batteries		Internal battery: 5h charge to 90% External battery: Depend on the capacity of external batteries	
Leakage current	<500uA		<500uA	
Temperature Compensation by hardware based on circumstance temperature	-3mV/degree/cell based on 25°C		-3mV/degree/cell based on 25°C	
Features				
ECO Mode	YES		YES	
EPO Function	YES		YES	
Multi-Communication	YES****		YES****	
Start W/O Battery	YES		YES	
Maintenance Bypass Switch	YES		YES	
Fan Speed Control	YES		YES	
Frequency Converter Mode (CVCF)	YES*****		YES*****	
INDICATOR & ALARM				
Display	Smart LCD Display		Smart LCD Display	
Battery mode	Beeps every four second		Beeps every four second	
Battery low	Sounding every second		Sounding every second	
Overload	Sounding twice every second		Sounding twice every second	
Fault	Continuous beeping		Continuous beeping	
INTERFACE				
RS232	Standard, supports WinPower Software		Standard, supports WinPower Software	
USB	Standard, supports WinPower Software		Standard, supports WinPower Software	
Intelligent Slot	SNMP / RS485 / AS400 Card		SNMP / RS485 / AS400 Card	
AC Outlets	Terminal		Terminal	
MECHANICAL				
WxHxL (mm)	350 x 890 x 650		350 x 890 x 650	
Net Weight	175Kg		183Kg	
Operating Temperature Range	0°C ~ 45 °C		0°C ~ 45 °C	
Relative Humidity	0 ~ 95% (No condensing)		0 ~ 95% (No condensing)	
Audible Noise	<55dB at front 1m		<55dB at front 1m	
REGULATIONS				
-ESD	IEC 61000-4-2 Level 4		IEC 61000-4-2 Level 4	
-RS	IEC 61000-4-3 Level 3		IEC 61000-4-3 Level 3	
-EFT	IEC 61000-4-4 Level 4		IEC 61000-4-4 Level 4	
-Surge	IEC 61000-4-5 Level 4		IEC 61000-4-5 Level 4	
-Conduction	IEC 62040-2 Category C3		IEC 62040-2 Category C3	
-Radiation	IEC 62040-2 Category C3		IEC 62040-2 Category C3	
-Safety	IEC 62040-1-1		IEC 62040-1-1	
-Transportation	TC-RDW-22		TC-RDW-22	
-Protection	IP21		IP21	

*Derate to 90% with 200Vac output voltage.

**Output Freqency matches the M2 source. If M2 source fails the output frequency of the UPS will go into free-run mode .

***When the voltage or frequency of M2 source is out of range.

****Allows up to 3 simultaneous communication protocols..

*****Derate to 60% during Frequency Converter Mode and Bypass function is disabled.