

PRODUCT SPECIFICATIONS	REF. No.: A9103-80300-01
PRODUCT SERIES : Castle Series (IV) MODEL No. : C3KR	No OF PAGE(S):
	1 OF 5

INPUT

Nominal Voltage	: 220VAC
Phase	: Single phase with ground
Allowed Voltage Range	: 115 ~ 300VAC
Line Low detection / Comeback	: 110VAC / 170VAC \pm 5VAC, at \leq 60% load; 120VAC / 170VAC \pm 5VAC, at 60% ~ 70% load; 140VAC / 170VAC \pm 5VAC, at 70% ~ 80% load; 160VAC / 170VAC \pm 5VAC, at >80% load
Line High detection / Comeback	: 300VAC / 285VAC \pm 5VAC
Nominal Frequency	: 50Hz
Frequency Range	: 46 ~ 54Hz \pm 0.2Hz; can be configured to 40 ~ 60Hz \pm 0.2Hz through Winpower software
Frequency Low detection	: Default 46Hz, can be set to 40 ~ 49Hz through Winpower software
Frequency Low comeback	: Frequency Low detected plus 0.5Hz
Frequency High detection	: Default 54Hz, can be set to 51 ~ 60Hz through Winpower software
Frequency High comeback	: Frequency High detected minus 0.5Hz
Power Factor	: 0.97
Noise Suppression	: Full time EMI filtering
Nominal RMS Current	: 16.0A
Protection	: 16Amp resettable Circuit Breaker
Connection	: IEC320-16A inlet
Generator Compatibility	: Yes

OUTPUT

Nominal Power Capacity	: 3000VA / 2100Watts
Nominal Voltage	: 220VAC
Regulation	: \pm 2%
Waveform	: Sine wave
Distortion	: \leq 4% (linear load); \leq 7% (non-linear load)

PRODUCT SPECIFICATIONS	REF. No.: A9103-80300-01
PRODUCT SERIES : Castle Series (IV) MODEL No. : C3KR	No OF PAGE(S):
	2 OF 5

OUTPUT

Frequency	: Battery mode: 50Hz \pm 0.2Hz Line mode: Same as Input if input between 46Hz to 54Hz (Default); 50Hz \pm 0.2Hz if input is <46Hz or >54Hz
Phase Lock	: $\leq 3^\circ$
Load Transient Response	: $\leq 9\%$ (R load 100% taking on/off) $\leq 6\%$ (R load 20% - 100% - 20% variation)
Transient Recovery	: < 150ms recover to 90% nominal voltage
Crest Ratio	: 3:1
DC Offset	: $\leq 200\text{mV}$
Efficiency	: 85% (Line mode) 83% (Battery mode)
Overload Capability	: Line Mode: 108% ~ 150% $\pm 5\%$ for 30 seconds, >150% $\pm 5\%$ for 300ms transfer to Bypass mode; Automatically retransfer to Inverter mode after overload is cleared. Battery Mode: 112% ~ 150% $\pm 5\%$ for 30 seconds, >150% $\pm 5\%$ for 300ms then Fault warning
Protection against short-circuiting	: Cut-off within 7 cycles then Fault warning
Connection	: An IEC320-10A outlet and Terminal Block

BYPASS

Output before UPS power-on	: Default "NO", can be configured to "YES" through Winpower software
Voltage Range	: 80 ~ 264VAC (Default); can be set to 80 ~ 286VAC
Bypass Low Detection	: Default 80VAC, can be set to 80 ~ 219VAC through Winpower software
Bypass Low comeback	: Bypass Low voltage detected plus 10VAC
Bypass High detection	: Default 264VAC, can be set to 221 ~ 286VAC through Winpower software
Bypass High comeback	: Bypass High voltage detected minus 10VAC
Protection	: Resettable Circuit Breaker

PRODUCT SPECIFICATIONS	REF. No.: A9103-80300-01
PRODUCT SERIES : Castle Series (IV) MODEL No. : C3KR	No OF PAGE(S):
	3 OF 5

BATTERY & CHARGER

Type	: Sealed Lead-Acid, Maintenance Free (Panasonic)
Rating	: 12V7.2Ah
Quantity	: 8 pieces in a standard 2U Battery Pack
Nominal DC Voltage	: 96VDC
Backup Time (Full RCD load)	: > 5 minutes
Auto Shutdown Voltage	: 80VDC \pm 2.5VDC
Battery Low Alarm Voltage	: 88VDC \pm 2.5VDC
Deep Discharge Prevention	: Shutdown in 30 minutes after continuously discharging for 14 hours (This parameter can be adjusted, please contact Santak for further details if necessary)
Protection	: Fast-acting Fuse
Floating Charging Voltage	: 110.0VDC \pm 0.4VDC
Initial charging current	: 1.0A
Recharge Time	: 5 Hours recharge to 90%
Over Voltage Protection	: 115.2VDC \pm 0.8VDC
Leakage Current (Power Off)	: < 0.2 mA
Connection	: A dedicated cable comes with the Battery Pack for connection between the main unit and the Battery Pack

TRANSFER TIME

Utility Power Failure	: 0 ms
Battery Mode to Utility Power Mode	: 0 ms
Bypass to Inverter and vice versa	: < 4 ms
Auto Transfer	: Automatically retransfer to Inverter mode after overload is cleared

PRODUCT SPECIFICATIONS	REF. No.: A9103-80300-01
PRODUCT SERIES : Castle Series (IV) MODEL No. : C3KR	No OF PAGE(S):
	4 OF 5

INTERFACE

Control Panel	: Power On/Alarm silence, Power Off
Indicators	: Graphical LED display: Line mode, Battery mode, Bypass mode, Inverter mode, Load level/Battery level, Fault
Diagnostics	: Full system self test on power up
DC power-on function	: Yes
Auto-restart	: Default "YES", can be set to "NO" through Winpower software
Audible Alarm	
- Battery mode	: Beeps every 4 seconds
- Battery low or Charger fault	: Beeps every second
- Overload	: Beeps every 0.5 seconds
- Fault	: Beeps continuously
- Bypass mode or Site fault	: Beeps every 2 minutes
Communications	
- DB-9 Port	: RS232 interface
- Intelligent Slot (SNMP)	: Available (Options: WebPower, AS400 Card or Winpower CMC)
Network surge protection	: RJ45 I/O jacks available for network (RJ45) or Fax/Modem (RJ11)
Cooling	: Force air cooling

ENVIRONMENTAL

Operating Temperature	: 0 ~ 40 °C (0m < Altitude <1500m) 0 ~ 35 °C (1500m < Altitude <3000m)
Audible Noise	: 50dB at 1 meter distance in front of the UPS (Buzzer not included)
Storage Temperature	: -25 °C ~ 55 °C, subject to the battery specifications
Humidity	: < 95% non-condensing

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STANDARD & SAFETY

EMC	: IEC 61000-4-2(ESD) Level 4 IEC 61000-4-3(RS) Level 3 IEC 61000-4-4(EFT) Level 4 IEC 61000-4-5(Surge) Level 4
EMI (Conducted & Radiated)	: EN55022 Class B
Safety	: IEC62040-1

MECHANICAL FEATURES**Unit**

Dimensions: W x D x H (mm)	: 482 x 450 x 88 (2U)
Weight (Kg)	: 11.2 kg

Packaging

Dimensions: W x D x H (mm)	: 600 x 600 x 265
Weight (Kg)	: 13.2 kg

Battery Pack

Dimensions: W x D x H (mm)	: 482 x 450 x 88 (2U)
Weight (Kg)	: 25.3 kg

Packaging

Dimensions: W x D x H (mm)	: 600 x 600 x 265
Weight (Kg)	: 27.8 kg

Specifications are subject to change without notice.