

CHAMP SERIES



PF0.9 Online UPS

1KVA-10KVA

Applications:



ECO mode



Pure sinewave



Generator compatible



Computer

Compact & Small-Scale Online UPS Solutions

Champ Series is the high power density double-conversion online UPS with a output power factor 0.9. It's designed in small cabinet with microprocessor controller.

Champ Series also have USB and RS-232 communication ports as standard, with a built-in intelligent slot for additional adapters, protocol converters and relate contact cards.

GENERAL FEATURES

True double-conversion

Microprocessor control optimizes reliability

Input power factor correction ≥ 0.99

Output power factor 0.9

Wide input voltage (130 V – 280 V)

Converter mode available

ECO mode for energy saving

Generator compatible

Smart SNMP works well with either USB or RS-232 together display allows easy monitoring and access of UPS status

TECHNICAL SPECIFICATIONS

MODEL	CH-1101T	CH-1102T	CH-1103T	CH-1106T	CH-1110T
PHASE	Single phase with ground				
CAPACITY	1000 VA / 900W	2000 VA / 1800W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W
INPUT					
Nominal Voltage	200/208/220/230/240 VAC			208/220/230/240 VAC	
Voltage Range	120-300 VAC (Based on load at 50%) 180-280 VAC (Based on load at 100%)			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%)	
Frequency Range	40Hz ~ 70 Hz			46~54 Hz or 56~64 Hz	
Power Factor	≥ 0.99 @ Nominal Voltage (100% Last)				
OUTPUT					
Nominal Voltage	200/208/220/230/240 VAC			200/208/220/230/240 VAC	
AC Voltage Regulation	± 1%			± 1%	
Frequency Range(Synchronized Range)	47~ 53 Hz or 57 ~ 63 Hz			46~54 Hz or 56~64 Hz	
Frequency Range(Batt. Mode)	50 Hz or 60 Hz ± 0.5%			50 Hz or 60Hz ± 0.1 Hz	
Current Crest Ratio	3:1			3:1	
Harmonic Distortion	≤ 3 % THD (Linear Load), ≤ 6 % THD (Non-linear Load)			≤ 3 % THD (Linear Load), ≤ 5 % THD (Non-linear Load)	
Transfer Time	AC mode to Battery mode		Zero		Zero
	Inverter to Bypass		4 ms (Typical)		Zero
Waveform (Batt. Mode)				Pure Sinewave	
EFFICIENCY					
Line Mode	88%	89%	90%	92%	93%
Battery Mode	83%	85%	88%	90%	91%
BATTERY					
Battery Type	12V / 9 Ah	12V / 9 Ah	12 V / 9 AH	12 V / 9 AH	12 V / 9 AH
Numbers	2	4	6	16	16
Typical Recharge Time	4 hours recover to 90% capacity			9 hours recover to 90% capacity	
Charging Current (max.)	1.0 A	1.0 A	1.0 A	1A/2A (Adjustable)	
Charging Voltage	27.4 VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%	218.4VDC±1%	218.4VDC±1%
INDICATORS					
LCD Display	Last level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators				
ALARM					
Battery Mode	Sounding every 4 seconds				
Low Battery	Sounding every second				
Overload	Sounding twice every second				
Fault	Continuously sounding				
AC INPUT & OUTPUT CONNECTORS					
AC Input Connector	1 x IEC 320 C14	1 x IEC 320 C14	1 x IEC 320 C20	Terminal block	
AC Output Connector	3 x CEE 7/4 (Schuko)	3 x CEE 7/4 (Schuko)	4 x CEE 7/4 (Schuko)		
STANDARDS					
Safety / EMC	IEC 62040-1 (safety) / IEC-62040-2 (EMC) / CE				
PHYSICAL					
Dimension, D x W x H(mm)	282 x 145 x 220	397 x 145 x 237	421 x 190 x 336	UPS Unit: 369 x 190 x 688 Battery Pack: 369 x 190 x 318	UPS Unit: 442 x 190 x 688 Battery Pack: 442 x 190 x 318
Net Weight (kgs)	9.8	17.0	17.6	UPS Unit: 61 Battery Pack:49	UPS Unit: 66 Battery Pack:49.5
ENVIRONMENT					
Operation Humidity	20-90% RH @ 0-40°C (non-condensing)			0-95% RH @ 0-50°C (non-condensing)	0-95% RH @ 0-40°C (non-condensing)
Noise Level	Less than 50 dBA @ 1 Meter			Less than 50 dBA @ 1 Meter	Less than 58 dBA @ 1 Meter
MANAGEMENT					
Smart RS-232 / USB	Supports Windows 2000/2003/XP/Vista/2008/7, Linux and MAC				
Optional SNMP	Power management from SNMP manager and web browser				

*1-3KVA: Derate to 80% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 100/200/208VAC.
6-10KVA: Derate to 60% of capacity in Frequency converter mode and to 90% when the output voltage is adjusted to 208VAC.
Product specifications are subject to change without further notice.



Backup Time Table for Champ Series

Battery Bank		Backup Time with Load (Min)			
		25%	50%	75%	100%
CH 1101TS	Internal battery only (24V:12V-9Ah x 2)	20	9.0	5.0	3.0
CH 1102TS	Internal battery only (48V:12V-9Ah x 4)	25	10	6.0	3.0
CH 1103TS	Internal battery only (72V:12V-9Ah x 6)	26	10	6.0	3.0
CH 1106TS	Internal battery (192V:12V-9Ah x 16)	42	17.8	10	6.8
	+1 external battery (192V: 12V-9AH x 32)	78	32	18.6	12.6
CH 1110TS	Internal battery (192V:12V-9Ah x 16)	22.3	8.7	4.8	2.3
	+1 external battery (192V: 12V-9AH x 32)	53	22	13	8.7

TECHNICAL SPECIFICATIONS

MODEL	CH-1101R	CH-1102R	CH-1103R	CH-1106R	CH-1110R
PHASE	Single phase with ground				
CAPACITY	1000 VA / 900W	2000 VA / 1800W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W
INPUT					
Nominal Voltage	200/208/220/230/240VAC			208/220/230/240VAC	
Voltage Range	120-300 VAC at 50% load 180-300 VAC at 100% load			110-300 VAC ± 3% at 50% Load 176-300 VAC ± 3% at 100% Load	
Frequency Range	40Hz ~ 70 Hz			46~54 Hz or 56~64 Hz	
Power Factor	≥ 0.99 @ Nominal Voltage (100% Last)				
OUTPUT					
Nominal Voltage	200/208/220/230/240VAC			208/220/230/240 VAC	
AC Voltage Regulation	± 1%			± 1%	
Frequency Range(Synchronized Range)	47~ 53 Hz or 57 ~ 63 Hz			46~54 Hz or 56~64 Hz	
Frequency Range(Batt. Mode)	50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz or 60Hz ± 0.1 Hz	
Current Crest Ratio	3:1			3:1	
Harmonic Distortion	≤ 3 % THD (Linear Load), ≤ 6 % THD (Non-linear Load)			≤ 3 % THD (Linear Load), ≤ 5 % THD (Non-linear Load)	
Transfer Time	AC mode to Battery mode	Zero			Zero
	Inverter to Bypass	4 ms (Typical)			Zero
Waveform (Batt. Mode)	Pure Sinewave				
EFFICIENCY					
Line Mode	88%	89%	90%	92%	93%
Battery Mode	83%	87%	88%	90%	91%
BATTERY					
Standard Model	Battery Type	12V / 9 Ah	12V / 9 Ah	12 V / 9 AH	
	Numbers	2	4	6	
	Typical Recharge Time	4 hours recover to 90% capacity			N/A
	Charging Current (max.)	1.0 A	1.0 A	1.0 A	
Long-run Model	Charging Voltage	27.4 VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%	
	Battery Type				Depending on the capacity of external batteries
	Numbers in string				16-20pcs (Adjustable)
	Charging Current (max.)	N/A			1A/2A/4A/6A (Adjustable, 6A is only available for 16pcs batteries)
Charging Voltage					218.4 VDC ± 1% (Based on 16pcs batteries)
INDICATORS					
LCD Display	Last level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators				
ALARM					
Battery Mode	Sounding every 4 seconds				
Low Battery	Sounding every second				
Overload	Sounding twice every second				
Fault	Continuously sounding				
AC INPUT & OUTPUT CONNECTORS					
AC Input Connector	1 x IEC 320 C14	1 x IEC 320 C14	1 x IEC 320 C20	Terminal block	
AC Output Connector	3 x CEE 7/4 (Schuko)	3 x CEE 7/4 (Schuko)	4 x CEE 7/4 (Schuko)	Terminal block	
STANDARDS					
Safety / EMC	IEC 62040-1 (safety) / IEC-62040-2 (EMC) / CE				
PHYSICAL					
Standard Model	Dimension, D x W x H(mm)	310 x 438 x 88	410 x 438 x 88	630 x 438 x 88	N/A
	Net Weight (kgs)	12	19	29.3	N/A
Long-run Model	Dimension, D x W x H(mm)	N/A			UPS Unit: 530x438x88 [2U] Battery Pack: 668x438x88 [2U]
	Net Weight (kgs)	N/A			UPS Unit: 15 Battery Pack:48
ENVIRONMENT					
Operation Humidity	20-90% RH @ 0-40°C (non-condensing)			0-95% RH @ 0-40°C (non-condensing)	
Noise Level	Less than 50 dBA @ 1 Meter			Less than 50 dBA @ 1 Meter	Less than 58 dBA @ 1 Meter
MANAGEMENT					
Smart RS-232 / USB	Supports Windows 2000/2003/XP/Vista/2008/7, Linux and MAC				
Optional SNMP	Power management from SNMP manager and web browser				

*1K-3K: Derate to 80% of capacity in Frequency converter mode or when the output voltage is adjusted to 208VAC.
6K/10K: Derate to 60% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 208VAC.
Product specifications are subject to change without further notice



Backup Time Table for Champ Series

	Battery Bank	Backup Time with Load (Min)			
		25%	50%	75%	100 %
CH 1106RS	Internal battery (192V:12V-9Ah x 16)	42	17.8	10	6.8
	+1 external battery (192V: 12V-9AH x 32)	78	32	18.6	12.6
CH 1110RS	Internal battery (192V:12V-9Ah x 16)	22.3	8.7	4.8	2.3
	+1 external battery (192V: 12V-9AH x 32)	53	22	13	8.7