

**Applications:** 











Generator



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 only available for 1-3 K models Generator compatible

Smart SNMP works well with either USB or RS-232

together display allows easy monitoring and access of

**UPS** status

Adjustable battery numbers only available for 6 K/10 K models



#### **TECHNICAL SPECIFICATIONS**

MODEL	CH-1101TS	CH-1102TS	CH-1103TS	CH-1106TS	CH-1110TS		
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		30/240 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 56~6			or 56~64 Hz			
Power Factor		≧	0.99 @ Nominal Voltage (100	.00% Last)			
OUTPUT				·			
Nominal Voltage		208/220/230/240 VAC		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%					
Current Crest Ratio		3:1		50 Hz or 60Hz ± 0.1 Hz 3:1			
Current Crest Natio		≦ 3 % THD (Linear Load),					
Harmonic Distortion		≦6 % THD (Non-linear Load	≦ 3 % THD (Linear Load), ≦5 % THD (Non-linear Load)				
Transfer AC mode to Battery mode		Zero			ero		
Time Inverter to Bypass		4 ms (Typical)		Ze	ero		
Waveform (Batt. Mode)			Pure Sinewave				
EFFICIENCY							
Line Mode	88%	89%	90%	92%	93%		
Battery Mode	83%	85%	88%	90%	91%		
BATTERY	4014 / 0.41	401//0.41	40.1/10.411				
Battery Type	12V / 9 Ah	12V / 9 Ah	12 V / 9 AH				
Numbers	2	4	6				
Typical Recharge Time		hours recover to 90% capac	· · · · · · · · · · · · · · · · · · ·				
Charging Current (max.)	1.0 A	1.0 A	1.0 A				
Charging Voltage INDICATORS	27.4 VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%				
LCD Display		Last level, Battery level, A	C mode, Battery mode, Bypas	s mode, and Fault indicators			
ALARM							
Battery Mode	Sounding every 4 seconds						
Low Battery	Sounding every second						
Overload			Sounding twice every second	d			
Fault			Continously sounding				
AC INPUT & OUTPUT CONNECTORS							
AC Input Connector	1 x IEC 320 C14	1 x IEC 320 C14	1 x IEC 320 C20	Tormis	nal block		
AC Output Connector	3 x CEE 7/4 (Schuko)	3 x CEE 7/4 (Schuko)	4 x CEE 7/4 (Schuko)	Terriii	Idi Diock		
STANDARDS							
Safety / EMC		IEC 62	040-1 (safety) / IEC-62040-2 (E	MC) / CE			
PHYSICAL							
Dimension, D x W x H(mm)	282 x 145 x 220	397 x 145 x 220	421 × 190 × 318	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	27.6	UPS Unit: 61 Battery Pack:49	UPS Unit: 66 Battery Pack:49.5		
ENVIRONMENT							
Operation Humidity	20-90	20-90% RH @ 0-40°C (non-condensing)			0-95% RH @ 0-40°C (non-condensing)		
Noise Level		Less than 50 dBA @ 1 Meter	r	(non-condensing) Less than 50 dBA @ 1 Meter	Less than 58 dBA @ 1 Meter		
MANAGEMENT							
Smart RS-232 / USB		Supports Windo	ws 2000/2003/XP/Vista/2008	/7, Linux and MAC			
Optional SNMP			nagement from SNMP manage				
Optional Sivivii			ted to 100/200/200				



		Backup Time with Load (Min)			
	Battery Bank	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 (384V: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 (384V:12V-9Ah x 32)	53	22	13	8.7

<sup>\*1-3</sup>KVA: 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.

## **Champ Series**

#### **TECHNICAL SPECIFICATIONS**

MODEL		CH-1101RS	CH-1102RS	CH-1103RS	CH-1106RL	CH-1110RL		
PHASE		Single phase with ground						
CAPACIT	Y	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			
Frequenc	cy Range		40Hz ~ 70 Hz		46~54 H	z or 56~64 Hz		
Power Fa			≥ 0.	0.99 @ Nominal Voltage (1009	% Last)			
OUTPUT			200/200/200/200/200/200/200/		200/220/	220/2403/40		
Nominal			200/208/220/230/240VAC			230/240 VAC		
	ge Regulation		± 1%			1%		
	cy Range(Synchronized Range)		47~ 53 Hz or 57 ~ 63 Hz			or 56~64 Hz		
	cy Range(Batt. Mode)	50	0 Hz ± 0.25 Hz or 60Hz ± 0.3 H	1z		0Hz ± 0.1 Hz		
Current (	Crest Ratio		3:1			3:1		
Harmonic Distortion			$\leq$ 3 % THD (Linear Load), $\leq$ 6 % THD (Non-linear Load)			≦ 3 % THD (Linear Load), ≦5 % THD (Non-linear Load)		
Transfer	AC mode to Battery mode		Zero		Z	'ero		
Time	Inverter to Bypass		4 ms (Typical)		Z	'ero		
Waveform (Batt. Mode)				Pure Sinewave				
EFFICIEN	NCY							
Line Mod		88%	89%	90%	92%	93%		
Battery N		83%	87%	88%	90%	91%		
BATTER		101//0.41	101/ (0.4)	121//24/				
	Battery Type	12V / 9 Ah	12V / 9 Ah	12 V / 9 AH	_			
Standard	Numbers	2	4	6	_			
Model	Typical Recharge Time		hours recover to 90% capacit	·	N/A			
	Charging Current (max.)	1.0 A	1.0 A	1.0 A	_			
	Charging Voltage	27.4 VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%				
	Battery Type			Depending on the capacity of external batteries				
Long-run		N/A			16-20pcs (Adjustable) 1A/2A/4A/6A (Adjustable, 6A is only available for 16pcs batte			
Model	Charging Current (max.)							
	Charging Voltage				218.4 VDC ± 1% (Ba	ased on 16pcs batteries		
NDICAT								
LCD Disp	lay		Last level, Battery level, AC	mode, Battery mode, Bypass	mode, and Fault indicators			
ALARM	A-d-			Carradia a array 4 a a a a a da				
Battery N				Sounding every 4 seconds				
Low Battery								
LOW Dalle	· · · · · · · · · · · · · · · · · · ·			Sounding every second				
	l		<u> </u>	Sounding every second Sounding twice every second				
Overload Fault								
Overload Fault <b>AC INPUT</b>	& OUTPUT CONNECTORS		(	Sounding twice every second  Continously sounding				
Overload Fault <b>AC INPUT</b> AC Input	& OUTPUT CONNECTORS Connector	1 x IEC 320 C14	1 x IEC 320 C14	Sounding twice every second  Continously sounding  1 x IEC 320 C20		al block		
Overload Fault <b>AC INPUT</b> AC Input	& OUTPUT CONNECTORS	1 x IEC 320 C14 3 x CEE 7/4 (Schuko)		Sounding twice every second  Continously sounding	Termin	al block		
Overload Fault AC INPUT AC Input AC Outpu	& OUTPUT CONNECTORS  Connector t Connector RDS		1 x IEC 320 C14 3 x CEE 7/4 (Schuko)	Sounding twice every second  Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)	Termin Termin			
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E	& OUTPUT CONNECTORS  Connector t Connector  RDS  EMC		1 x IEC 320 C14 3 x CEE 7/4 (Schuko)	Sounding twice every second  Continously sounding  1 x IEC 320 C20	Termin Termin			
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E	& OUTPUT CONNECTORS  Connector t Connector RDS EMC	3 x CEE 7/4 (Schuko)	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204	Sounding twice every second Continously sounding  1 x IEC 320 C20 4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI	Termin Termin MC) / CE	al block		
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E	& OUTPUT CONNECTORS  Connector t Connector  RDS  MC  AL  Dimension, D x W x H(mm)	3 x CEE 7/4 (Schuko) 310 x 438 x 88	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204 410 x 438 x 88	Sounding twice every second Continously sounding  1 x IEC 320 C20 4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI	Termin Termin MC) / CE N/A	al block N/A		
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA	& OUTPUT CONNECTORS  Connector t Connector RDS EMC	3 x CEE 7/4 (Schuko)	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin Termin MC) / CE N/A N/A	al block		
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model Long-run	& OUTPUT CONNECTORS  Connector  t Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)	3 x CEE 7/4 (Schuko) 310 x 438 x 88	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204 410 x 438 x 88	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin Termin MC) / CE N/A	al block N/A		
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model	& OUTPUT CONNECTORS  Connector  t Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)	3 x CEE 7/4 (Schuko) 310 x 438 x 88	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204 410 x 438 x 88	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin  Termin  MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack:	N/A		
Overload Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model Long-run	& OUTPUT CONNECTORS  Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)	3 x CEE 7/4 (Schuko)  310 x 438 x 88  12	1 x IEC 320 C14 3 x CEE 7/4 (Schuko)  IEC 6204  410 x 438 x 88  19  N/A	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin  Termin  MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack: 668x438x88 [2U]  UPS Unit: 15  Battery Pack:48	N/A N/A N/A 580 x 438 x 133[3U]		
Overload Fault Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model  Long-run Model	& OUTPUT CONNECTORS  Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)	3 x CEE 7/4 (Schuko)  310 x 438 x 88  12	1 x IEC 320 C14 3 x CEE 7/4 (Schuko) IEC 6204 410 x 438 x 88	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin  Termin  MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack: 668x438x88 [2U]  UPS Unit: 15  Battery Pack:48	N/A N/A N/A 580 x 438 x 133[3U]		
Overload Fault Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model Long-run Model ENVIRON Operatio Noise Lev	& OUTPUT CONNECTORS  Connector  t Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)  Net Weight (kgs)  Net Weight (kgs)	3 x CEE 7/4 (Schuko)  310 x 438 x 88  12	1 x IEC 320 C14 3 x CEE 7/4 (Schuko)  IEC 6204  410 x 438 x 88  19  N/A	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin  Termin  MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack: 668x438x88 [2U]  UPS Unit: 15  Battery Pack:48	N/A N/A N/A 580 x 438 x 133[3U] 18		
Overload Fault Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model  Long-run Model  ENVIRON Operatio Noise Lev	& OUTPUT CONNECTORS  Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)  Net Weight (kgs)  Net Weight (kgs)	3 x CEE 7/4 (Schuko)  310 x 438 x 88  12	1 x IEC 320 C14 3 x CEE 7/4 (Schuko)  IEC 6204  410 x 438 x 88  19  N/A  N/A  N/A  RH @ 0-40°C (non-condens) Less than 50 dBA @ 1 Meter	Sounding twice every second Continously sounding  1 x IEC 320 C20 4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI 630 x 438 x 88 29.3	Termin Termin MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack: 668x438x88 [2U]  UPS Unit: 15 Battery Pack:48  0-95% RH @ 0-40  Less than 50 dBA @ 1 Meter	N/A N/A N/A 580 x 438 x 133[3U] 18		
Overload Fault Fault AC INPUT AC Input AC Outpu STANDAI Safety / E PHYSICA Standard Model  Long-run Model  ENVIRON Operatio Noise Lev MANAGE	& OUTPUT CONNECTORS  Connector  t Connector  RDS  EMC  L  Dimension, D x W x H(mm)  Net Weight (kgs)  Dimension, D x W x H(mm)  Net Weight (kgs)  Net Weight (kgs)	3 x CEE 7/4 (Schuko)  310 x 438 x 88  12	1 x IEC 320 C14 3 x CEE 7/4 (Schuko)  IEC 6204  410 x 438 x 88  19  N/A  N/A  N/A  RH @ 0-40°C (non-condens) Less than 50 dBA @ 1 Meter	Sounding twice every second Continously sounding  1 x IEC 320 C20  4 x CEE 7/4 (Schuko)  40-1 (safety) / IEC-62040-2 (EI  630 x 438 x 88  29.3	Termin Termin MC) / CE  N/A  N/A  UPS Unit: 530x438x88 [2U]  Battery Pack: 668x438x88 [2U]  UPS Unit: 15 Battery Pack:48  0-95% RH @ 0-40  Less than 50 dBA @ 1 Meter	N/A N/A N/A 580 x 438 x 133[3U]		

<sup>\*1</sup>K-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							
		Bac	Backup Time with Load (Min)				
	Battery Bank	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		

