

The Ultimate Interactive DC to AC Pure Sine Wave Inverter/Charger Power Management Control System Ideally Designed for Home, Boat, Caravan or RV



Features

- Combi-functional just like all what Combi-3 has with intelligent shore and generator power management
- Uninterrupted AC power (UPS function)
- Virtually unlimited power thanks to parallel operation
- Three phase capability
- **PowerControl** – Dealing with limited generator, shore side or grid power to avoid sudden loads on generator causing voltage spikes
- **PowerSupport** – Boosting the capacity of shore or generator power, an innovative feature of the CombiPlus
- Communication with max. 10 sets of solar chargers (SunStar Series)
- Four preset control mode application with AC grid, AC charging and solar charging
- Mode 1 takes the AC mains input power to supply to the load or charge the batteries
- Mode 2 incorporates the “maximum AC input current limit” to protect against unwanted power tripping from the mains supply of the backup generator
- Mode 3 and Mode 4 are “Green Power Smart Feature” and designed to conserve energy by using the solar power to recharge the batteries. The difference between mode 3 and mode 4 is that the AC charger in the CombiPlus is always off in mode 3
- Wall Mount and Table Mount available for choices
- Optional remote panel with LCD display for easy operation in distance



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Specifications

Model No.	12 Volt System 24 Volt System 48 Volt System	CP-1500-12X ⁽¹⁾ CP-1500-24X CP-1500-48X	CP-3000-12X ⁽¹⁾ CP-3000-24X CP-3000-48X	CP-6000-24X ⁽¹⁾ CP-6000-48X
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GENERAL			
Ventilation	Forced cooling		
Temperature – Operation	- 20°C ~ + 70°C		
– Storage	- 25°C ~ + 80°C		
Protection			
a. Output short circuit	✓		
b. Over load	✓		
c. Battery voltage too high	✓		
d. Battery voltage too low	✓		
e. DC voltage ripple too high	✓		
f. Temperature Sensor	✗		
Transformer	(105°C)		
Electronic & Powerstage	(70°C)		
Battery Temp BTS-3	(50°C)		
Humidity	0 ~ 95 % (non condensing)		
Power Control Function	✓		
Power Shifting Function	✓		
Uninterrupted AC Power	✓ (Less than 10 msec)		
Adaptive 4-stage Charge	✓		
Two output to charge 2 battery banks	✓		
Auxiliary Relay	X 3		
Parallel Operation (Requires optional CP-PX)	(Max. 5 sets)		
3-phase Capacity (Requires optional CP-3PX)	✓		
Battery Voltage Sensor	✓		
Battery Temperature Sensor (BTS-3 Optional)	✓		
Remote Control Port	✓		
Extension Port (Port C)	✓		

INVERTER			
Input Voltage Range (VDC)	12V-(9.5-16V) 24V-(19-32V) 48V-(38-64V)	24V-(19-32V) 48V-(38-64V)	
Output Voltage (VAC)	210 ~ 245 V / 94 ~ 128 V		210 ~ 245 V
Output Frequency	50Hz / 60Hz ± 0.1%		
Output Waveform	True Pure Sinewave		
Output Voltage THD	< 5%		
Power Factor (All Loads)	✓		
No linger load, crest factor	3 : 1		
Cont. Power Output @ 70°C (W) Under 70°C (cos φ=1.0)	1500Watt (No derate 70°C)	3000Watt (No derate 70°C)	6000Watt (No derate 70°C)
Cont. Power Output (W) Over 70°C (cos φ=1.0)	0W (Shutdown)		
Maximum Power (W)	3000W	6000W	12000W
Maximum Efficiency (%)	82 / 84 / 85	84 / 86 / 89	88 / 89
Zero-load Power (W)	(8W Power Save) 12W (Normal)	(12W Power Save) 18W (Normal)	(18W Power Save) 36W (Normal)

CHARGER			
Input Voltage Range (VAC)	180 ~ 265 VAC / 94 ~ 138 VAC	180 ~ 265 VAC	
Input Frequency	45 - 55 Hz / 55 - 65 Hz		
Power Factor	1		
Charge Characteristic	4-stage adaptive Bulk-Absorption-Float-Equalize + Safe		
Maximum DC Voltage Ripple (Vrms)	< 1.25V		
Charge Current House Battery (A)	70A / 40A / 20A	140A / 70A / 40A	140A / 70A
Charge Current Starter Battery (A)	4A		
Output Charging Voltage (VDC)	12V~16V / 24V~32V / 48V~64V	24V ~ 32V 48V ~ 64V	
Absorption Voltage Default (VDC)	14.4V / 28.8V / 57.6V	28.8V 57.6V	
Float Voltage Default (VDC)	13.8V / 27.6V / 55.2V	27.6V 55.2V	
Equalize Voltage Default (VDC)	13.2V / 26.4V / 52.8V	26.4V 52.8V	
Output Charge Voltage (min - max)	8V~16V / 11V~32V / 22V~64V	11V ~ 32V 22V ~ 64V	
Battery Temperature Sensor	BTS-3 (optional)		

AC INPUT SWITCH			
AC IN Terminal Circuit Breaker	30A (110V) 15A (220V)	60A (110V) 30A (220V)	60A (220V)
AC IN Auto Transfer Switch Current	32A (110V) 16A (220V)	63A (110V) 32A (220V)	64A (220V)
Switch-over Time			
a. inverter to AC input	0 msec		
b. AC input to inverter	0 msec		
Detection Time AC Input Fault	4 ~ 10 msec		

MECHANICAL			
Cabinet / Protecting Class	Aluminum / IP20		
Dimension (H x W x D) mm	362 x 258 x 370	424 x 258 x 370	500 x 290 x 400
Weight (kgs)	21	27	44

OPTIONS	
Solar Charger: (SunStar Series)	SS-45C / SS-60C (Max.10)
Remote Controller (RCP-4)	Remote monitoring available, optional cables:3M / 15M
Battery Temperature Sensor (BTS-3)	Compensation for the battery charging voltage and current
PC Programming Unit (PPU-CP)	Programming and monitoring the values displayed in PC
Parallel Box Package (CP-PX)	Stackable power (Max. 5 sets for parallel connection)
2-/3-Phase Box Package (CP-3PX)	2-Phase or 3-Phase output

※ (1) X should be 1, output voltage = 94 ~ 128 VAC or 2, output voltage = 210 ~ 245 VAC

