EXPLL TECHNOLOGIES

COMBO POWER CUBE
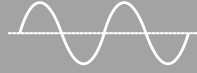## SMART INVERTER CHARGER

Smart Inverter Charger
Single /Three Phase Availble

3000W **5000W** **6000W** **8000W**

ExPll COMBOpower cube series provides unmatched freedom of use due to its many functions. In a basic application, it offers a total package: the functions of inverter, battery charger, transfer system and assistance to the source. These functions can be combined and controlled in a totally automatic way for exceptional ease and optimal management of available energy.

The COMBOis equipped with a command entry and 2 configurable auxiliary contacts. This allows automatic control of a genset or loadshedding when the battery voltage is too low. The flexibility obtained makes it possible to implement special functionalities, often necessary for good energy management in standalone systems.

The COMBOseries offers an optimal use of all sources that can be found in hybrid systems, whatever their connecting mode (AC or DC bus), up to the nominal power of the Xtender system (single, parallel and/or three phase).

Function Smart-Boost and active filtering

With this function it is possible to interact directly with the AC source (Genset or grid) and to implement some basic functions such as:

· Efficient and immediate limitation of the current of the source, including non linear or inductive/ capacitive loads, protecting efficiently the breakers during connection to shore power or to a camping power meter with limited current (function of power shaving and power assistance)

· Power shaving of load steps on the generator allowing an optimal sizing of the generator and asssuring the best possible efficiency of the fossil fuels (function of filtering and of power assistance).

The function of assistance to the source enables also to implement advanced functions such as the priorityuse of renewable energy, even when the grid is available

Product Features

>> High power factor up to 1, excellent efficiency and overload
>> Pure sine wave output for sensitive and motor loads
>> Perfect management and limitation of AC sources
>> Power shaving of the consumption peaks
>> Auto switch between utility AC and battery within 15 millisecond as U.P.S
>> Manual switch priority power source between battery and utility AC
>> RS232 available. Monitoring software included
>> Max. 9 units stacking use to get Max. 72KW output power
>> Compatible with AC coupling

Protection

>> Input & output AC overcurrent protection
>> Input AC over-voltage protection
>> Battery DC overvoltage and low voltage protection
>> AC output short circuit protection
>> Over temperature protection
>> Over load protection

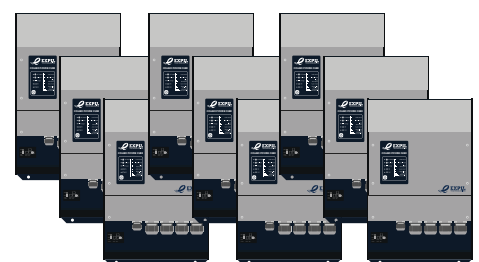### Application

| Emergency | Off Grid | Mobile House |
| Commercial | RVs | Marine |

Parallel

Max. 9 units in parallel (72KW output)

SPECIFICATION

MODEL	COM3000-512	COM5000-524	COM6000-548	COM8000-548
Nominal battery voltage	12 VDC	24 VDC	48 VDC	48 VDC
Input voltage range	9.5~17.0 VDC	19.0~34.0 VDC	38.0~68.0 VDC	38.0~68.0 VDC
Continuous power	2500 VA	4500 VA	5000 VA	7000 VA
Power 30 min.	3000 VA	5000 VA	6000 VA	8000 VA
Power 5 sec.	7500 VA	12000 VA	15000 VA	21000 VA
Max. efficiency	93%	94%	96%	96%
Standby consumption	1.4 W	1.8 W	2.2 W	2.4 W
Consumption ON	14 W	18 W	22 W	30 W
Maximum load	Up to short-circuit			
Maximum asymmetric load	Up to continuous output power			
Load detection(standby)	2~25 W			
Cos φ	0.1~1			
Output voltage	230 VAC(±2%) / 120 VAC; Pure sine wave			
Output frequency	45 Hz~60 Hz ± 0.05%			
Total harmonic distortion (THD)	<2%			
Overload & short-circuit protection	Automatic disconnection with 3 time restart attempt			
Overheat protection	Warning before shut-off - with automatic restart			

AC Charger

	COM3000-512	COM5000-524	COM6000-548	COM8000-548
Charge characteristic	6 steps : Bulk-Absorption-Floating-Equalization-reduced floating-periodic absorption Number of steps, thresholds, end current and times completely adjustable with the RCC-02/-03			
Temperature Compensation	With BTS-01 or BSP 500/1200			
Power factor correction(PFC)	EN 61000-3-2			
Maximum charging current	160 Amp	140 Amp	100 Amp	120 Amp

General Data

|	COM3000-512	COM5000-524	COM6000-548	COM8000-548
Input AC voltage range	150~265 VAC / 50~140 VAC			
Input frequency	45~65 Hz			
Input current max.(transfer relay) / Output current max.	50 Aac / 56 Aac			50 Aac / 80 Aac
Transfer time	<15ms			
Multifunction contaCM-	2 independent contaCOMBO(potential free 3 points, 16Aac/5Adc)			
Dimension (H×W×L) mm	230×300×500			
Protection index	IP20			
Operating temperature range	-20~55°C			
Relative humidity	95% without condensation			
Noise level	45 dB with ventilation / 40 dB without ventilation			
Cooling	Forced fan. Start working @ 55°C			
Weight	34 Kg	40 Kg	42 Kg	46 Kg

FUNCTION

Inverter, charger and transfer switch

The COMBObasically works as an inverter and as a charger, combined with a transfer relay.
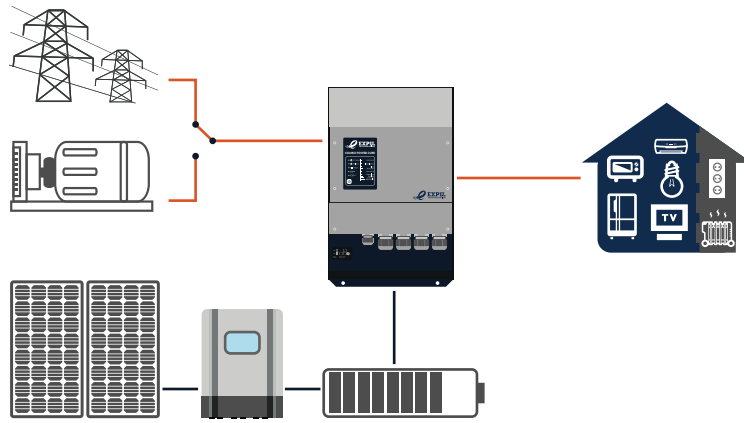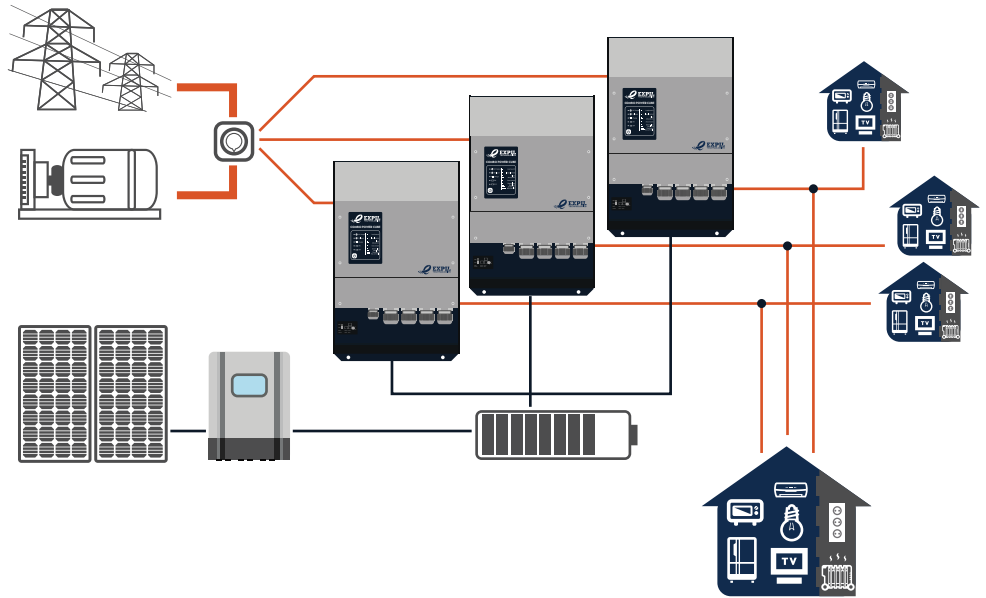
2 or 3 units in parallel on 1 phase

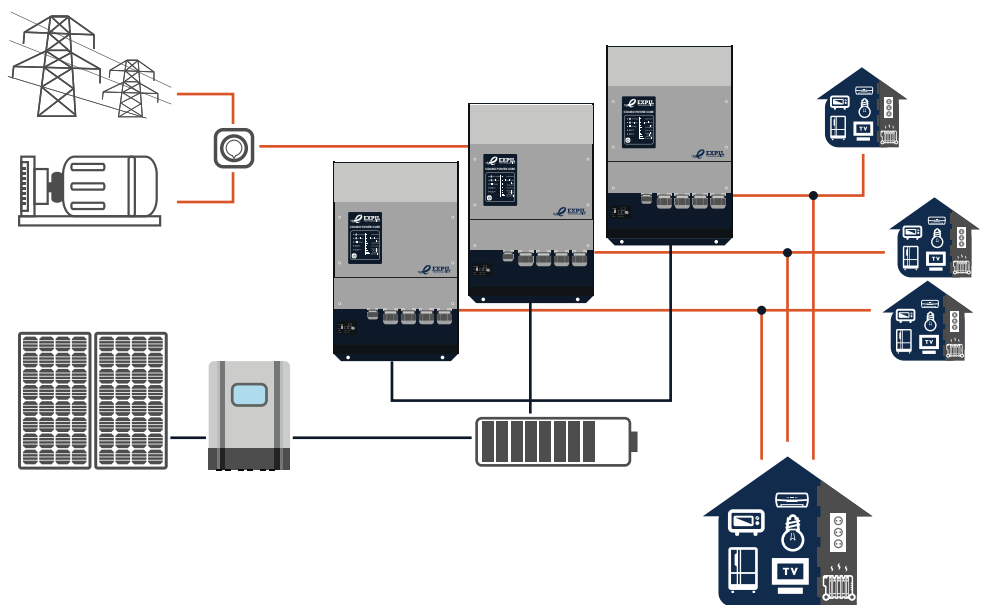Increase the power on one phase by putting 2 or 3 COMBOin parallel.
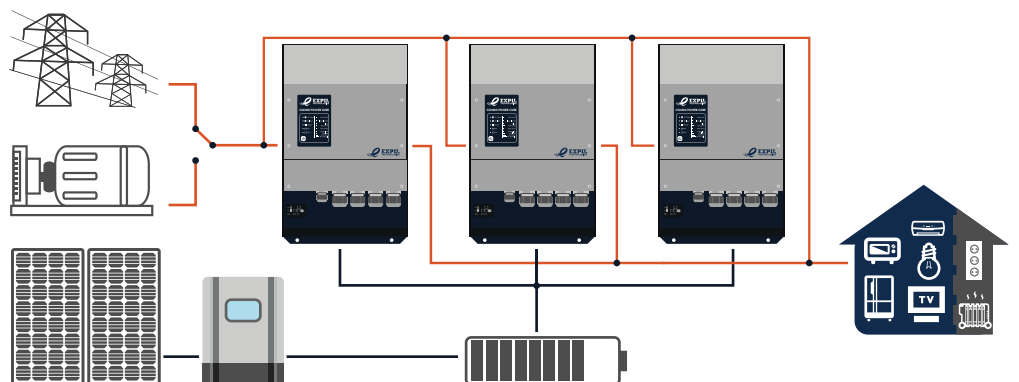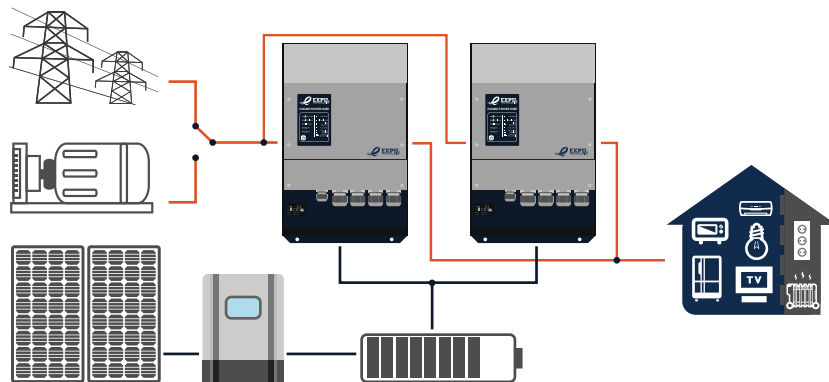
FUNCTION

3-phase In and 3-phase Out

Three-phase source for a three-phase power supply.
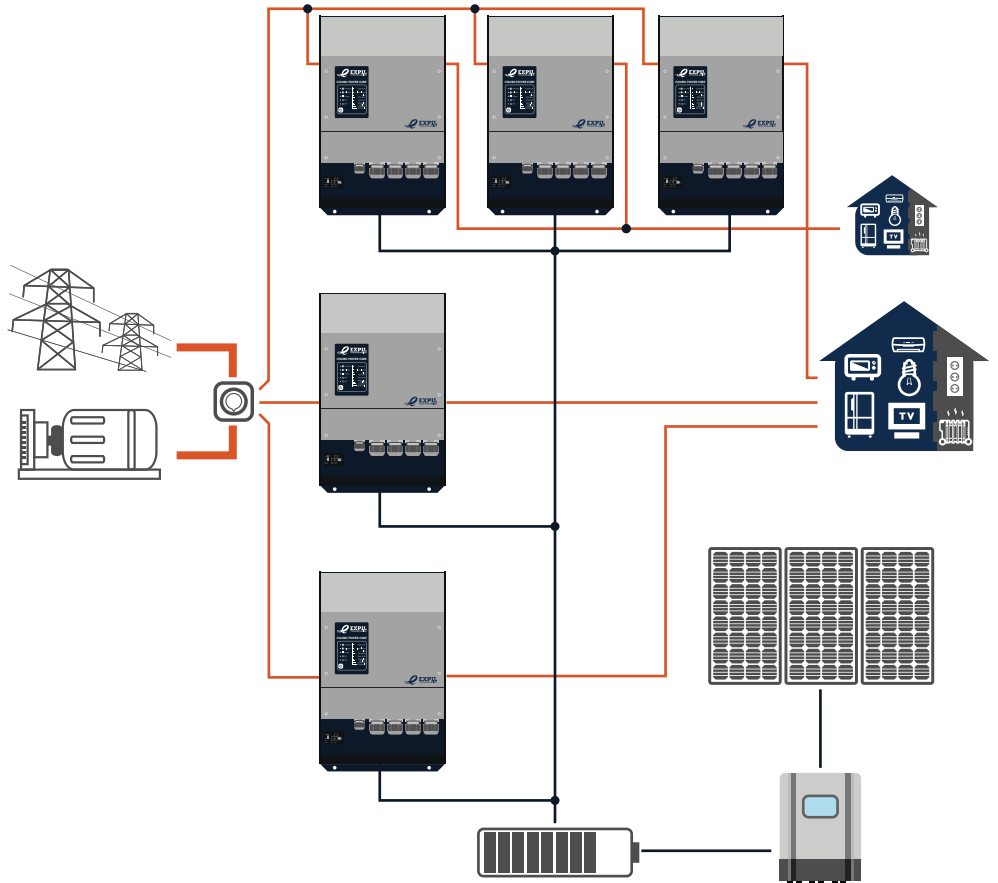
1 phase In and 3-phase Out

Three-phase power supply from a single phase source.

FUNCTION

3-phase with one reinforced phase

Three-phase power supply with increase of the power on one phase by setting 2 or 3 COMBOin parallel on this

3 CTS in parallel on 3 phases

Three-phase power supply with 3 COMBOon each phase; for power up to 72kW.