

ePRO combi



The Enerdrive ePRO Combi is an all-in-one combination of a DC to AC true sinewave inverter, an advanced multi-stage battery charger with a high speed AC transfer switch.

All this is built into one compact, yet installer friendly enclosure. Besides these three main functions, there are several unique features offered as well. Some of which benefit from the strong interaction between the three main functions.

The main task of the ePRO Combi is to act as an uninterruptible AC power supply (UPS). In case of a grid/generator failure or disconnection, the ePRO Combi immediately stops charging the battery, releases the AC transfer switch and activates the inverter which takes over the supply to the connected loads. All this is achieved so fast, that even very critical loads like computers will continue to operate without any problems. In case the grid/generator is reconnected again and the voltage and frequency are within acceptable limits, the ePRO Combi activates the AC transfer switch and battery charger again, while deactivating the inverter. The connected loads are now supplied again by the grid/generator without any interruption.

Available in 12v, 24v or 48v models and ranging in sizes from 1600-3500w inverter output and 35-120A charger output, the ePRO Combi has a unit to suit nearly any application.

Key ePRO Combi Features:

- ▶ AC Input Power Boost, which temporarily assists weak AC input sources when the connected load needs more power than available from the grid or generator.
- ▶ AC Input Current Limit, which limits the maximum current consumed from the AC input source by the ePRO Combi. This limit is user adjustable.
- ▶ Power Factor Corrected AC Input, which optimizes energy efficiency and makes sure that the maximum amount of charging current is available from your AC source.
- ▶ Intelligent 4-stage charge programs, user programmable to fit any battery type.
- ▶ Fully programmable inverter, transfer switch and battery charger parameters, using the Dashboard for Windows software.
- ▶ Programmable alarm relay, for optimal control of external devices like generator starting or selective load disconnection.
- ▶ Freely assignable trigger input, which allows the user to control the ePRO Combi by external events.
- ▶ Temperature controlled fans, to guarantee silent operation under less than full load conditions.
- ▶ Temperature compensated battery charging, using the standard supplied battery temperature sensor for maximum battery lifetimes.



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The ePRO Combi Is The Perfect Inverter / Charger Solution To Suit Markets Such As:

Recreational vehicles

- ▶ With a very small size footprint for power output, the ePRO Combi is the perfect solution for tight installations.

Solar Power Systems –

- ▶ Suitable for small back up sites that require variable control capabilities with the innovative Trigger Switches.

Industrial Systems –

- ▶ Any small commercial application can be configured to use the ePRO Combi as a smart UPS system again using the Trigger Switches.

Commercial work vehicles –

- ▶ Provide ultra clean AC power for sensitive equipment.

Marine Systems –

- ▶ Great charging capabilities from a small unit.

When installation space is at a premium, but maximum performance is required then look no further than the ePRO Combi range. With so many internal features the ePRO Combi will provide you with all the requirements for on-board power along with:

AC Input Power Boost – The ePRO Combi is capable of temporarily assisting weak AC input sources when more power is needed than available (i.e. from small generators). This is beneficial when larger loads than both the generator or the inverter on their own could support; so let the ePRO Combi combine both of the AC sources for maximum load support capability.

AC Input Current Limit – For those times when you have limited AC supply (i.e. portable generators), you can set the ePRO Combi to only charge at a maximum rate.

Alarm Output Relays – Providing full configuration options for the alarm contacts PLUS convert external trigger commands into a number of ePRO Combi status changes.

Also available on the larger 2000-3500w Combi's are two fully configurable 16A 230v alarm relay outputs for controlling large AC loads like air conditioning. Along with two unique trigger inputs, it gives the end user virtually unparalleled control of their Enerdrive ePRO "Power Station".



Universal Remote Control

The Universal Remote Control (URC) can be used to remotely readout all available parameters from your ePRO inverter/charger Combi, like charging current, output voltage, charge stage etc. It is also possible to put the Combi in standby mode or to wake it up again, besides being able to control the maximum charge current and the maximum AC input current. All information is shown on a clear white backlit graphical display. This kit comes with mounting screws and a 3 meter interface cable (standard cat5 patch cable). The URC automatically recognises to which type of equipment it is connected.



Enerdrive Offers A New Innovative Trigger-Action Feature For The ePRO Combi Inverter / Charger Series

Add virtually unlimited control to your power system. The Trigger-action feature enables you to assign certain events (triggers) to user defined actions. You can for example configure the ePRO Combi to perform an action when a certain voltage, current or temperature level is reached, or perform an action when an external switch is closed or opened. This offers great flexibility and may in some cases avoid the need to invest in additional external hardware.

- ▶ A few practical examples are :
 - ▶ Disable inverter mode using an external switch
 - ▶ Activate a relay when the charger enters float mode
 - ▶ Stop charging using an external switch (i.e. from external BMS)
 - ▶ Turn off an AC load when the inverter is overloaded
 - ▶ Only activate the transfer relay when the battery is almost empty
 - ▶ Turn the AC Input boost function on or off depending on generator or mains supply (recommended so that the smart boost function does not run while connected to mains AC).

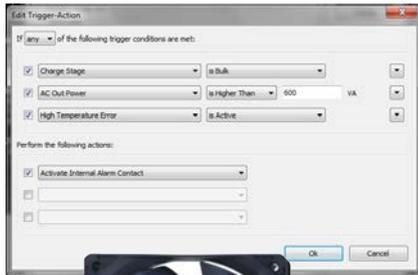
* Programming kit required for setup of triggers; or speak to Enerdrive at time of ordering.



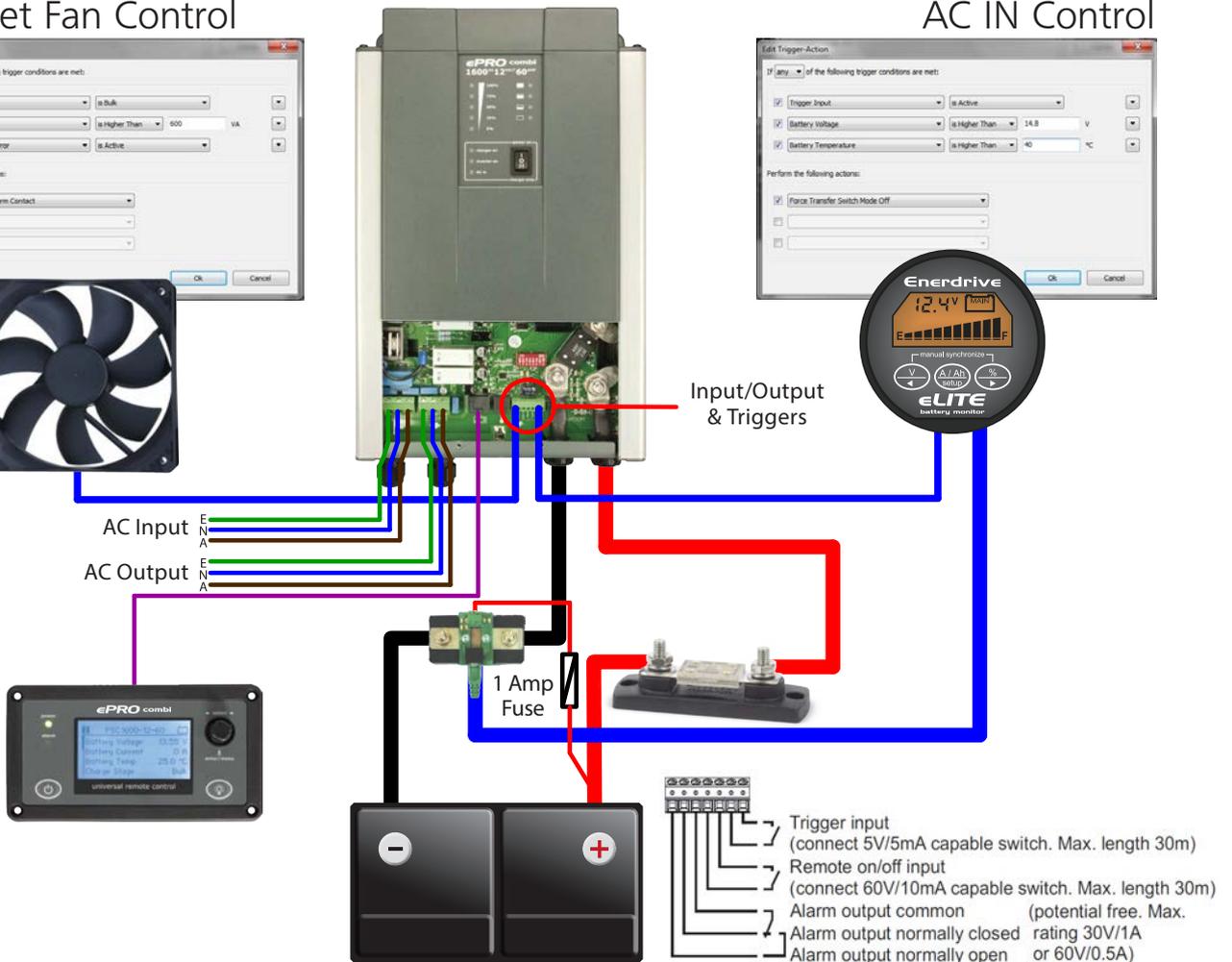


Trigger-Action Feature For The ePRO Combi Inverter / Charger Series

Cabinet Fan Control



AC IN Control



Dashboard

- ▶ Configure and readout your ePROLink enabled devices
- ▶ Supports multiple Enerdrive ePRO devices
- ▶ Check all settings, status and history data with just the click of a button
- ▶ Use the advanced data recording wizard to log all available parameters
- ▶ Output logged data to Microsoft Excel for further analysis
- ▶ Open individual readout/control panels for each device with real time parameter info
- ▶ Create custom charge programs
- ▶ Rename your device (i.e. "Starter battery", "Accessory bank charger")
- ▶ Many new features will be added periodically
- ▶ Will be supplied along with each communication kit (USB or RS232)
- ▶ Windows XP, Vista and Windows 7 compatible

Applications

- ▶ Tool for installation and service engineers
- ▶ Large screen real-time monitoring
- ▶ Battery analysis



Model	EPC 1600-12	EPC 1800-24	EPC 2000-12	EPC 2500-24	EPC 3000-12	EPC 3500-24
INVERTER STAGE						
Output power ¹⁾ P _{nom}	1300W	1400W	1800W	2000W	2600W	2800W
P10minutes	1600W	1800W	2100W	2500W	3200W	3800W
P _{surge}	2500W	3000W	4000W	5500W	5000W	6500W
Output voltage / frequency	230VAC ± 2% / 50Hz ± 0.05%					
Output waveform	True sinewave (THD < 5% ¹⁾) @ P _{nom}					
Input voltage (± 3% tolerance): Nominal	12V	24V	12V	24V	12V	24V
Range	10.5 ²⁾ – 16VDC	21 ²⁾ – 32VDC	10.5 ²⁾ – 16VDC	21 ²⁾ – 32VDC	10.5 ²⁾ – 16VDC	21 ²⁾ – 32VDC
Maximum efficiency	92%	94%	92%	93%	92%	93%
No load power consumption ³⁾ [ASB]	< 10W [2.0W]	< 12W [2.0W]	< 20W [3.5W]	< 20W [4.0W]	< 20W [3.5W]	< 20W [4.0W]
CHARGER STAGE						
AC input voltage	185 – 270VAC / 45 – 65Hz / PF > 0.95					
Maximum continuous charging current ⁴⁾	60A	35A	80A	50A	120A	70A
Standard charge voltage (bulk / float @ 25°C)	14.3V / 13.3V (programmable)	28.6V / 26.6V (programmable)	14.3V / 13.3V (programmable)	28.6V / 26.6V (programmable)	14.3V / 13.3V (programmable)	28.6V / 26.6V (programmable)
Charge algorithm or program	IUoUoP, intelligent 4 stage, temp. comp.					
AC TRANSFER SWITCH						
Maximum continuous current	16Arms		30Arms			
Transfer time (typical)	0ms (inv. → mains) / < 5ms (mains → inv.)					
GENERAL						
ePRO Link enabled	Yes					
Protections	high/low battery voltage, high temperature, overload, short circuit, high ripple voltage and low AC input voltage					
DC connections	Two wires, length 1.5 meters, 35mm ²⁾			M10 bolt terminals		
AC connections	Screw terminals					
Enclosure body size	351 x 210 x 114mm			370 x 431 x 132mm		
Total weight	10.7kg			18.5kg		
Protection class / Oper. temp. / Storage temp.	IP21 / -20°C .. +50°C / -40°C .. +80°C					
Standards	Complies with IEC 60335-2-29 including Australian deviations.					

Note: the given specifications are subject to change without notice.

1) Measured with resistive load. Power ratings are subject to a tolerance of 10% and are decreasing as temperature rises with a rate of approx. 1.2%/°C starting from 25°C.

2) Undervoltage limit is dynamic. This limit decreases with increasing load to compensate the voltage drop across cables and connections.

3) Measured at nominal input voltage and 25°C

4) At higher ambient temperatures, maximum output current shall be reduced automatically



INCLUDED AND OPTIONAL ACCESSORIES



Temperature Sensor Included



Remote Control and Cable Optional



Link Cable (Windows Connect) Optional

Dealer: