

SIMPLIPHI YOUR POWER WITH THE **ExprESS 5.4**

turnkey 24V energy storage & management solution with Magnum Energy & Morningstar equipment

The ExprESS™ is a battery powered AC generator and Uninterruptible Power Supply (UPS) that stores electricity for use when and where power from the grid is unavailable: remote, off-grid, emergency and black-out scenarios. The ExprESS™ stores electricity from solar and wind chargers (DC input), conventional generators, and the grid (AC input).



- ExprESS, Mobile AC power for critical equipment where you need it - in a home, office, hospital, school or emergency shelter
- ExprESS access to USB ports and AC outlets for charging cell phones, tablets and other portable devices
- Locking NEMA3R cabinet for outdoor/indoor security and heavy-duty lockable casters for safe and easy mobility

As a reliable primary or back-up power supply, the ExprESS™ is safe for indoor use, is non-toxic and does not require ventilation or cooling.

The ExprESS™ delivers 5.4 kWh, a sufficient reserve to operate computers, appliances, AV equipment, power tools, refrigeration and medical equipment for hours or days at a time (see run time chart).

Specifications	ExprESS™ 24V
General	
Dimensions (W x H x D)	36 x 36 x 17 in. (w/feet) (92 x 92 x 43 cm)
Weight	365 lbs (165 kg) (incl. batteries)
Enclosure Rating	NEMA 3R Outdoor rated
Operating Temperature	-4 to 122 °F (-20 to 50 °C)
Mounting	Free-standing
Inverter	
Magnum Energy	MS2024
Application	On / Off Grid
AC Connections	(4) 115V GFCI sockets for powering devices rated up to 15 Amps
AC Output	16 A, 120V AC, 60 Hz
Rated Power ¹	2 (2.7 kW ¹)
CEC Weighted Efficiency	94%
Battery	
SimpliPhi Power	PHI 2.7 kWh 24VDC 60 Amp
Rated kWh Capacity @ C/2	5.4 kWh
Depth of Discharge ²	up to 100%
Round Trip Efficiency	98%
Cycle Life	10,000+ (@ 80% DOD)
Warranty Period	10 years
Solar (PV Inlet)	
Morningstar Charge Controller	TriStar-45 MPPT
Input Power, Max	1.2 kW
Charge Current, Max	45 A DC
PV Array Voltage, Operating	9 to 68 V DC
PV Array Voltage, Max Open Circuit	125 V DC
Other Features	
System Interface	ME-ARC

Notes: • 1. When operating from the battery, the maximum inverter power is half the battery capacity (kWh/2h).
• 2. Max operating conditions. Refer to Warranty for recommended settings.
• Specifications are typical/nominal. Subject to change without notice.

WHAT'S INCLUDED

CONTROLLER MODULE	Controls 'on-off', inverter, charger and monitors state of charge
INVERTER/CHARGER	Changes DC battery electricity to 115 Volt AC output and recharges battery
AC INPUT/AC OUTPUT CIRCUIT BREAKERS	Protects against AC overloads and short circuits
DC CIRCUIT BREAKER ON-OFF SWITCH	Protects against DC overloads and short circuits
(2) PHI 2.7 KWH BATTERIES	Electronically controlled energy storage and management of DC current
AC INPUT	115 Volt AC input for direct pass-through AC and for charging PHI 2.7 batteries (included)
(2) USB OUTLETS	For charging and operating cell phones, tablets, and other electronic devices
DC INPUT	For solar or wind

HOW THE ExprESS™ WORKS

UPS Mode (Uninterruptible Power Supply)

- Plug the supplied extension cord into the ExprESS™ "AC Input" and into a standard AC outlet (wall socket)
- Plug electronic devices and equipment into one of the ExprESS™ AC or USB DC power outlets
- Turn the ExprESS™ inverter "ON" using the Controller Module (refer to manual as needed)
- AC Power will now be available from the ExprESS™ AC outlet
 - The AC grid automatically charges the ExprESS™ whenever the batteries need recharging
 - During a grid failure, the ExprESS™ automatically switches to UPS mode enabling uninterrupted (continual) and reliable equipment operation for critical electrical loads

Remote AC Power

- Turn the ExprESS™ inverter "ON" using the Controller Module
- Plug electronic devices and equipment into the ExprESS™ AC or USB DC power outlets
- Power is now available to run your electronic devices and equipment for hours or days at a time

Recharge

- When battery power is low or whenever time permits, plug the ExprESS™ into the wall, generator or solar/wind charger to recharge. Charging can be done as frequently as desired without harm to the system or the PHI 2.7 batteries. The ExprESS can be used to support electrical loads while charging.

The power required to run equipment in everyday situations varies with the electrical device. Appliances such as microwaves, irons, toaster ovens, and hairdryers require high current for short periods of time. Appliances such as televisions, computers, fans, and refrigerators use low current for extended periods of time.

For example, if all of the following devices are used once a day, the total usage will be less than 1,500 watt hours.

Run Time Chart

Devices	Watts	Time (Minutes)	Usage (Wh)
Microwave	1,200	15	300
Electric Kettle	1,200	7	130
Hotplate	1,160	15	290
Toaster Oven	1,100	30	150
Television	65	120	130
Computer	50	180	150
Lamp	40	300	200
Fan	35	180	105
Radio	10	180	30
TOTAL			1,485



Read all instruction manuals before operating. For additional technical information contact Technical Support directly at (805) 640-1874.

Power. On Your Terms.™