

Grid-Tie Inverters



Beacon M-Series Inverter

Beacon Power

Smart Power M-Series – Grid-Tie Battery Backup Power Conversion System

The four models in the M-Series family use an innovative two-stage electrical architecture to achieve 93 percent peak efficiency. The first stage of this two-stage inverter is a high-efficiency Maximum Power Point Tracking DC-DC voltage converter that optimally processes photovoltaic power (48-110 VDC) and converts it to battery voltage. The second stage is a grid-tied DC-to-AC inverter. Together, these two stages provide a highly reliable source of AC power, capable of operating in stand-alone and grid-parallel modes, with automatic fast transfer between the two. It has full battery charge-control independent of PV voltage, and it minimizes grid-connect power loss and extends battery life. Each model is designed for use with a 48-volt battery bank of at least 100 amp/hours. A single microcontroller provides complete, highly flexible system control and is field-programmable with operating parameters stored in non-volatile memory. A simple front panel LED display shows system operating status. With simplified programming and data retrieval, flexible operating modes, and intelligent user and wiring interfaces, the Smart Power M-Series inverters are easy to install, set up, and operate. Each M-Series inverter comes as a fully integrated, single-box solution in an outdoor-rated enclosure containing all necessary ground fault protection, disconnects and circuit breakers. An RS-485 serial communications link with standard RJ-11 connectors allows for connection to a PC running optional Smart Power Monitor software. UL approved, CEC and NYPSC-listed. Five-year warranty.



Beacon String Combiner

Smart Power M5 Plus – The new Plus series contains the following feature enhancements: battery charge from AC grid, informational LCD display, internal memory records daily kWh values for inverter lifetime (non-volatile) as well as event data, flooded battery support (equalize charge capability), estimated battery state-of-charge display, flash/field upgradable firmware capability, smart power monitor Plus (installation battery wizard, kWh graphing, weekly, monthly, user defined).

Smart Power M4 – based on the feature set of the highly reliable Smart Power M5, the M4 offers 4000W AC output at an ambient temperature of up to 122°F (50°C) with no reduction in output power.

Smart Power M4 Plus – same feature set as M5 Plus, 4000W AC output.

Model	Efficiency CEC %	DC Input Voltage	Continuous Power (VA)	Dimensions in.	Weight lb.	Shipping Weight* lb.
Smart Power M5	93	48	5000	42 x 16 x 10	120	150
Smart Power M5 Plus	93	48	5000	42 x 16 x 10	120	150
Smart Power M4	93	48	4000	42 x 16 x 10	120	150
Smart Power M4 Plus	93	48	4000	42 x 16 x 10	120	150
Accessories						
String Combiner	NEMA 4					