

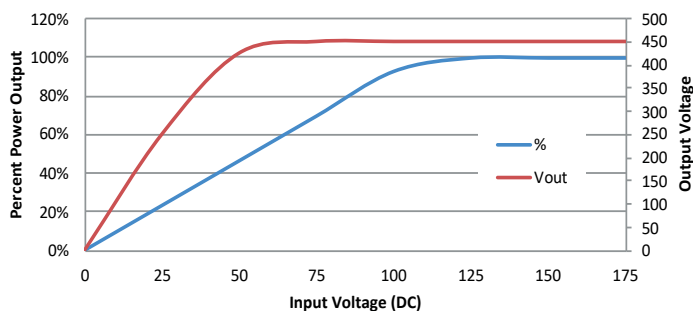
Marathon LR

Our unique DC-DC converter topology improves the value proposition for renewable and alternative energy solutions in three ways:

- 1) **ultra-high efficiency** enables passive cooling (versus liquid or forced air), simplifying the system design, increasing reliability and lowering cost.
- 2) **a boost ratio greater than 10X** eliminates multiple conversion stages, reducing the form factor, cost and complexity, and
- 3) **the conversion efficiency increases with lower input voltage**, where conventional converters fail to operate, improving the ROI and extending useful life of the generator or energy storage.

Design Features	Units	10.0 kW	30.0 kW
Nominal Operating Voltage	VDC	120-125	
Low Voltage before current de-rating	VDC	108	100
Input Current Limit	Amps	93	300
Voltage at 50% Power	VDC	54	50
Conversion Efficiency Average	%	>95	
Max Boost Ratio		1:12	
Output Voltage Range	VDC	250-450	
Output Current Limit (max)	Amps	22	66
Audible Noise	dBA	Silent	
Bi-Directional		Yes	
Communications		CAN	
Enclosure		As Required	
Cooling		Passive	

Percent Power and Voltage vs. V_{DCIN}



Combined Energies holds U.S. Patent No. 9,413,271 for our DC-DC converter design. The Marathon LR maximizes your application as a stand-alone solution for high voltage DC power output or integrates with an inverter stage for AC power.