

# MERLIN EXTREME DUTY INVERTERS [48V]

Merlin Extreme Duty Inverters utilise hybrid power conversion technology to provide significant benefits over low-cost, leisure style, switch-mode inverters and are designed specifically for mission critical applications where lives and livelihoods depend on power.

Designed & manufactured in Europe, Merlin Extreme Duty Inverters are built with leading brand components to provide a superlative inverter that outperforms all others and last years in everyday applications. Merlin Extreme Duty Inverters carry a full 5 year warranty.

Merlin Extreme Duty Inverters are highly configurable. Using simple windows-based software, an internal relay can be set-up to activate external devices (such as an automatic generator start facility) when any internal alarm is triggered. Various set points and configurable neutral/earth bonding ensures that you are able to conform to 18th Edition wiring regulations. Automotive e-mark also ensures legal fitting aboard road-going vehicles.

- **Significantly improved reliability** which is translated to the warranty term of 5 years.
- **High performance** in their ability to provide greater than their rated output for lengthier periods of time.
- **Withstands inductive AC loads** without inverter damage.
- **Advanced protection** against short circuits, overloading, and high temperatures.
- **Wide variety of sizes** combined with the robust industrial design, helps in finding the right model for every application.



PART#	30-1030	30-1032	30-1034	30-1036
<b>RATING</b>	<b>450W, 48V</b>	<b>800W, 48V</b>	<b>1800W, 48V</b>	<b>3500W, 48V</b>
<b>AC OUTPUT</b>				
OUTPUT POWER (CONTINUOUS)	300W	600W	1400W	2800W
OUTPUT POWER (10 MINS)	450W	800W	1800W	3800W
OUTPUT POWER (SURGE)	800W	1250W	3000W	6500W
OUTPUT VOLTAGE/FREQUENCY	230Vac ± 2% 50Hz ± 0.05%	230Vac ± 2% 50Hz ± 0.05%	230Vac ± 2% 50Hz OR 60Hz ± 0.05%	230Vac ± 2% 50Hz OR 60Hz ± 0.05%
OUTPUT WAVEFORM	TRUE SINEWAVE (THD<5%)	TRUE SINEWAVE (THD<5%)	TRUE SINEWAVE (THD<5%)	TRUE SINEWAVE (THD<5%)
PEAK EFFICIENCY	95%	94%	94%	93%
<b>DC INPUT</b>				
VOLTAGE (NOMINAL)	48V	48V	48V	48V
OPERATION RANGE	41.0 <sup>2)</sup> – 60.0Vdc	41.0 <sup>2)</sup> – 60.0Vdc	41.0 <sup>2)</sup> – 60.0Vdc	40.0 <sup>2)</sup> – 64.0Vdc
CURRENT (NO LOAD, ASB)	<6.5W	<8.2W	<12.0W	<21.0W
ASB THRESHOLD	POUT=15W	POUT=15W	POUT=10W	POUT=10W
<b>TEMPERATURE</b>				
OPERATING TEMP. RANGE	-20°C ... +50°C	-20°C ... +50°C	-20°C ... +50°C	-20°C ... +50°C
STORAGE TEMP. RANGE	-40°C ... +80°C	-40°C ... +80°C	-40°C ... +80°C	-40°C ... +80°C
COOLING	VARIABLE SPEED FAN	VARIABLE SPEED FAN	VARIABLE SPEED FAN	VARIABLE SPEED FAN
<b>PROTECTION</b>				
LOW BATTERY VOLTAGE	YES	YES	YES	YES
OUTPUT SHORT CIRCUIT	YES	YES	YES	YES
HIGH TEMPERATURE	YES	YES	YES	YES
OVERLOAD	YES	YES	YES	YES
AC BACK FEED	NO	NO	YES	YES
HIGH INPUT RIPPLE VOLTAGE	NO	NO	YES	YES
<b>INDICATIONS</b>				
POWER ON	YES	YES	YES	YES
ERROR	YES	YES	YES	YES
ASB MODE	YES	YES	YES	YES
OUTPUT POWER BAR	NO	NO	YES	YES
<b>ENCLOSURE</b>				
DC INPUT CONNECTIONS	2 X 4.0MM <sup>2</sup>	2 X 10.0MM <sup>2</sup>	2 X 25.0MM <sup>2</sup>	M10 BOLT TERMINALS
AC OUTPUT CONNECTIONS	SCHUKO (UK PLUG SUPPLIED)	SCHUKO (UK PLUG SUPPLIED)	SCREW TERMINALS	SCREW TERMINALS
DIMENSIONS (MM)	184 X 98 X 130	228 X 113 X 163	351 X 210 X 114	370 X 431 X 132
WEIGHT (KG)	3.5	6.2	10.5	18.5
PROTECTION CLASS	IP20	IP20	IP21	IP21
STANDARDS	CE MARKED MEETING EMC DIRECTIVE 2014/30/EU AND LVD 2014/35/EU COMPLYING WITH EN60335-1, E4-95/54/EC, ROHS 2011/65/EU			