

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 |
|---------------------------|---|------------------------------|--|--|
| RATING | 450W, 48V | 800W, 48V | 1800W, 48V | 3500W, 48V |
| AC OUTPUT | | | | |
| 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% |
| DC INPUT | | | | |
| VOLTAGE (NOMINAL) | 48V | 48V | 48V | 48V |
| OPERATION RANGE | 41.0 ²⁾ – 60.0Vdc | 41.0 ²⁾ – 60.0Vdc | 41.0 ²⁾ – 60.0Vdc | 40.0 ²⁾ – 64.0Vdc |
| CURRENT (NO LOAD, ASB) | <6.5W | <8.2W | <12.0W | <21.0W |
| ASB THRESHOLD | POUT=15W | POUT=15W | POUT=10W | POUT=10W |
| TEMPERATURE | | | | |
| 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 |
| PROTECTION | | | | |
| 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 |
| INDICATIONS | | | | |
| POWER ON | YES | YES | YES | YES |
| ERROR | YES | YES | YES | YES |
| ASB MODE | YES | YES | YES | YES |
| OUTPUT POWER BAR | NO | NO | YES | YES |
| ENCLOSURE | | | | |
| DC INPUT CONNECTIONS | 2 X 4.0MM ² | 2 X 10.0MM ² | 2 X 25.0MM ² | 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 | | | |