

DC to AC Power Inverter Fact Sheet

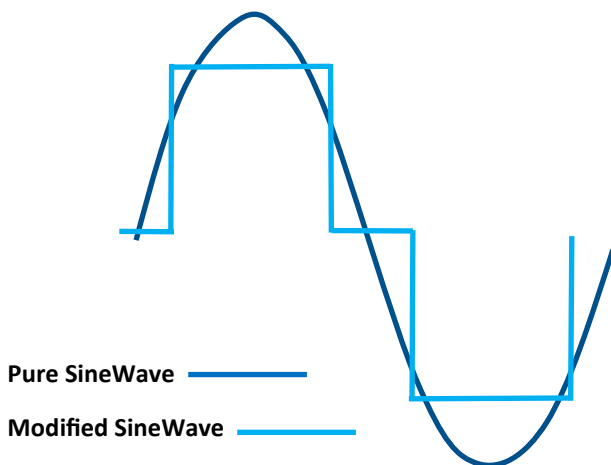
20 years of experience

Merlin introduced the first switch-mode power inverter to the UK market 23 years ago. Since then, they have become standard fit across the specialist vehicle and marine industries. Simply and silently converting battery power to 230V AC mains electricity, they allow you to run mains powered appliances without the need for shore power or a noisy and expensive generator.

Using our experience of manufacturers and applications, we have selected a range of inverter products that represent the best reliability, electrical performance and safety in their class.

Merlin engineers have full knowledge of Health & Safety, CE, NECIEC and MCA coding to ensure that installations meet the required laws. This includes the requirements of Earth Bonding and RCD devices – important subjects that you must comply with to ensure a legal and safe installation.

Pure Sinewave Output



Inverters are available with either a square/stepped/quasi or Pure Sinewave Output. The former is an approximation of an AC Sinewave. Suitable only for running simple loads like a mono-filament lamp, they will cause overheating, possible damage and poor performance of sophisticated loads like microwaves, power tools, audio visual equipment etc.

Modified or Square Wave Inverters will also cause interference on computer screens, televisions and radios.

Merlin inverters develop only a Pure Sinewave Output with less distortion than normal household power. This guarantees interference and trouble free operation of all 230V appliances.

Merlin Inverters feature substantial DC filtering to ensure that AC ripple back to the DC system (which causes interference on DC powered equipment) is substantially reduced.

Inverter Sizing

All Merlin Inverters are continuously rated (eg, our 1000w model will provide up to 1000 watts continuously). Size the inverter for the maximum continuous load required. Note that our inverters will provide greater than their continuous output for a short period of time – therefore, a 1200w rated drill will happily operate from a 1000w inverter. Be sure to check on the ratings plate of each to make sure you buy the appropriately sized inverter. If the appliance is rated in amps, multiply the amps figure by 230 to get watts. For example a 2.2A rated power tool would draw 506 watts.