WHICH GENERATOR DO I BUY?

By following our simple guide below you should be able to specify the right generator every time. In just a few easy steps, you can decide which Generator is right for the job in hand.

- List the tools and equipment you wish to operate with your Generator.
- Determine the required power for each item (see equipment data plate on product – watts).
- Add the required wattage of the items that will be run simultaneously (allowing for motor starting).
- Select the generator which exceeds your total power requirements. We recommend that you allow 20% extra on your total power requirements; it's not good practice to run your generator at full load continually. Example: If the total power requirements are 3000watts including start up loads we would recommend 3600watts.

Motor Starting is an important consideration when buying a Generator. Keep in mind when sizing induction-type motors, like those that run sump pumps, refrigerators, inverter welders and compressors, typically requiring 3 or 3.5 times their listed running Watts to start. Example 230v Compressor @ 1100w (1hp) x 3.0 = 3300watts. We would recommend a HX4000 UK.

Below is a chart you can use to determine how many watts you will need to start up motors of various sizes.

Motor Size (HP	Running Watts	Watts Required to Start Motor
1 / 8	275	850
1 / 6	275	850
1 / 4	400	1050
1 / 3	450	1350
1 / 2	600	1800
3 / 4	850	2600
1	1100	3300
2	2200	6600

Power tools using universal commutator/brush motors do not require a large start up load however we would always allow a slight start-up. Example Angle grinder @ 2200w x 1.2 = 2640watts we would recommend a HX3000.

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A few useful formulas:

Power Conversion

1.0 kW = 1000 watts

1.0hp = 749 watts

Formula

voltage x amps = watts

What does kVA mean?

The term kVA refers to kilo Volt Amperes or VA x 1000

To convert between kW and kVA

- The only difference between kW and kVA is the power factor. Once again, the power factor, unless known, is an approximation. For purposes of our calculations, we use a power factor of 0.8. The kVA value is always higher than the value for kW.

kW to kVA kW / 0.8 = SAME VALUE EXPRESSED IN kVA

kVA TO kW kVA x 0.8 = SAME VALUE EXPRESSED IN kW

APPLICATION

Our table below lists tools and appliances you may want to use with your generator. With each tool or appliance is listed the approximate running watts for each.
Examples only – see data plate for exact power requirements

Video	100
Fluorescent Lamp	100
Light Bulb	100
Sander	175
Fridge	200
Slow Cooker	200
Radio/Hi Fi	200
Colour TV	250
Central Heating Pump	300
VDU	300
Strimmer 10”	350
Printer	350
Jig Saw	400
Bench Grinder	400
Computer	400
13mm Drill	450
Orbital Sander	450
Hedge Trimmer	500
Flood Lamp	500
4” Angle Grinder	550
1/3 HP Airless Sprayer	600
Fax	600
13mm Hammer Drill	600
Deep Freeze	700
Planer	700
5” Angle Grinder	750
Hairdryer	1000
Lawnmower 10” Hover	1000
5” Circular Saw	1000
Router	1000
Belt Sander	1020
Vacuum Cleaner	1100
Coffee Maker	1200
Steam Iron	1250
Cement Mixer	1320
Chain Saw 10” – 16”	1500
600W Microwave	1500
Portable Heater	1500
Hot Air Gun	1500
Photocopier	1600
8” Floor Sander	2000
Compressor	2200
12” Grinder	2500
Hammer Drill	2500
Kettle	2500
Fan Heater	3000
Hammer/Breaker	3000
Pressure Washer 1 hp	3500
Arc Welder – 130A	3500
Washing Machine	4000

Important: If you are unsure always consult with the manufacturer of the tool or appliance for accurate electrical information