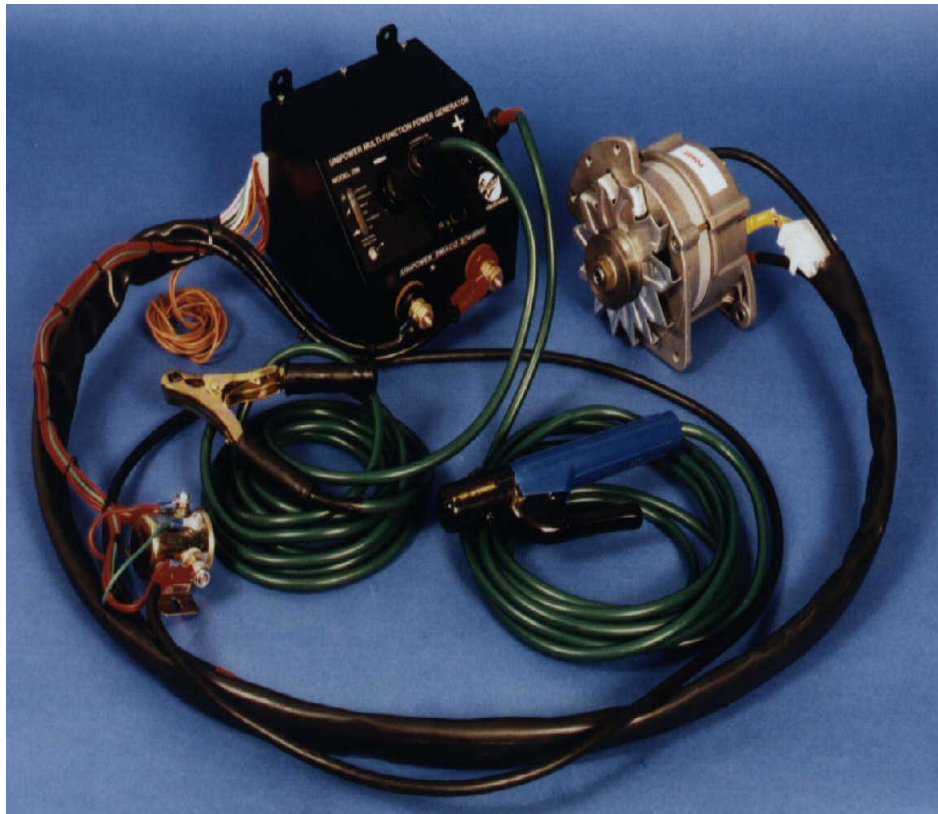


299 ACQ STD (2.5KW) and TURBO (3KW) Power quasi, generator only  
Data sheet

---



**299 ACQ STD (2.5 KW) and Turbo (3KW) Power quasi, generator only unit**



## 299 ACQ STD (2.5KW) and TURBO (3KW) Power quasi, generator only Data sheet

<b>Control Module</b>	
Operating voltage	12V or 24V (Specify)
Size	240x200x155mm
Weight	4 Kg
Loom	1.5 Meter , Neoprene & Silicone
Temp range	0 – 40 C
Output voltage	230V +- 10% 50 Hz
Power factor	0.6 Lagging to 1
Duty Cycle	100 % on welding. 100% for up to 10 minutes on 230V, then temperature de-rate, continuous out of plug 2kW-2.5kW (Depends on ambient temperature).
Control	DC link, with PWM
Wave form	Modified SINE WAVE
Charging	14.1V +- 5%
12V boost	16V +- 5%
24V boost	30V +- 5%
Weld striking	50V DC +- 5%
<b>Alternator</b>	
Type (Standard)	Bosch 55A (Standard)
Size (Standard)	190x210x155 mm
Weight (Standard)	5 Kg
Type (Turbo)	Bosch 90A (Turbo)
Size (Turbo)	165x205x150mm
Weight (Turbo)	5.5 Kg
Configuration	Single leg or 2 leg
Alternator speed	2000 to 11000 RPM
Suggested	6000RPM- 8000RPM
Rating	as per graph



## 299 ACQ STD (2.5KW) and TURBO (3KW) Power quasi, generator only Data sheet

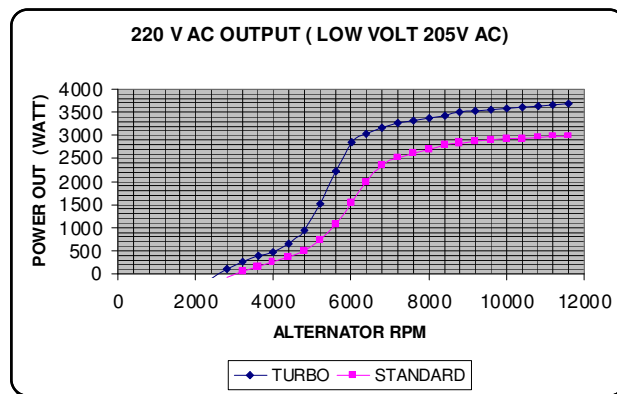
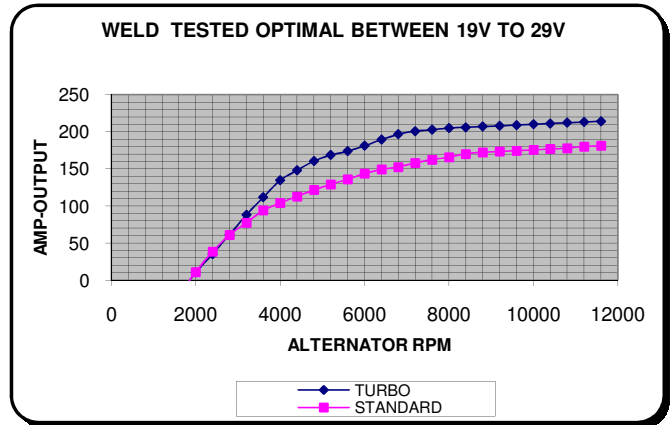
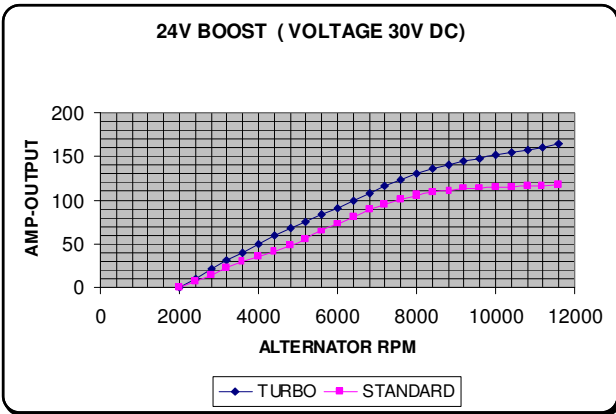
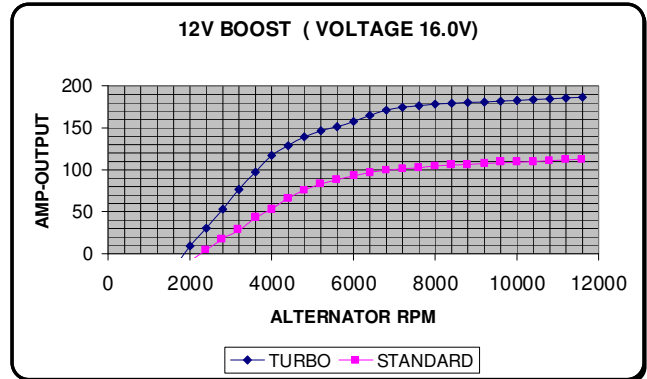
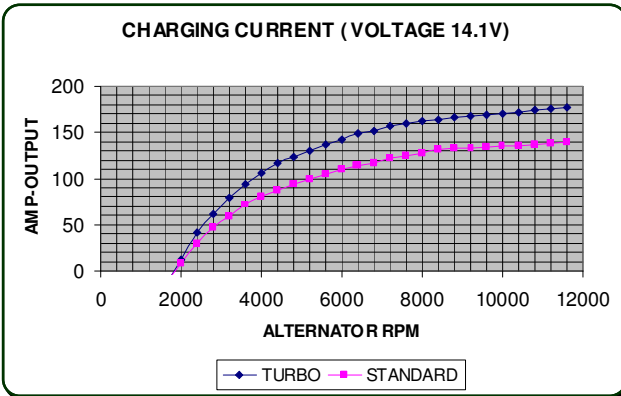
Model	Single Phase output voltage (230V AC @ 50 Hz)	Battery Charging (14.1V DC)	24V Boost (30V DC)	Weld (OCV 50V DC)
299 ACQ – 12V or 24V–S (Standard)	UP TO 2.5 KW	UP TO 140A	UP TO 100 A DC	UP TO 185 A DC
299 ACQ-12V or 24V – T (Turbo)	UP TO 3 KW	UP TO 170A	UP TO 130A DC	UP TO 225A DC

### Test Conditions:

- a) Ambient temperature 25 C
- b) Alternator and CM temperature 25 C
- c) Alternator driven with V belt 13mm. Alternator RPM controlled with a 22kW variable speed induction motor.
- d) Battery voltage kept constant for tests 12V = 14.1V and 24V = 28.2V
- e) Maximum alternator speed = 11000 RPM
- f) CM – mounted upright for ventilation.
- g) Loom length = 1.5M.
- h) Test done on Pure resistive load
- i) High voltage tests done on a 220V output voltage(Allowed volt drop to 205 V ac 10%)
- j) 12V Boost voltage test at 16V (allow drop to 15.5 V DC)
- k) 24V BOOST voltage test at 30V (allow drop to 27 V DC)
- l) Weld current test at 23V DC ( Could vary from 19V to 29V)



# 299 ACQ STD (2.5KW) and TURBO (3KW) Power quasi, generator only Data sheet



# 299 ACQ STD (2.5KW) and TURBO (3KW) Power quasi, generator only Data sheet

<p><b>Control Technique:</b> High voltage, DC controlled via Thyristors, Fixed control to 265V DC (+- 5%) . Inverter Crystal controlled to 50 Hz.</p> <p><b>Note :</b> Waveform is modified Sinewave</p> <p><b>Note :</b> 230V is referenced to earth, <b>DO NOT EARTH NEUTRAL</b></p> <p><b>Fan belt requirements:</b> For continuous high load applications Alternator must be installed with 13mm V fan belt. <b>OR 6 GROOVE PULLEY</b></p> <p><b>Overload ratings:</b> Plug current up to 23A, for up to 30 seconds. (To assist starting up compressors).</p> <p><b>Electrode holder rating:</b> 300A</p> <p><b>Cable connection for welding:</b> 25mm, bayonet type connection</p> <p><b>Plug Ratings:</b> 16 Amp for 230V , Schuckor type</p> <p><b>Earth Leakage:</b> No earth leakage protection as standard (Optional)</p>	<p><b>Displays: (vertical Y axis)</b> Green Led - ON Amber Led(1) - 12V boost Amber Led (2) - 24V boost Amber Led (3) - <i>Weld mode and 230 available</i> Red Led - Unit overload</p> <p><b>Horizontal ( X axis)</b> Current limiting ...In steps of 20% approximation from 140A upwards. Calibration is not different between Turbo and std thus ratios not fixed</p> <p><b>Temperature Power de-rating:</b> CM &amp; Alternator : approx. 25W/C</p> <p><b>Welding cable supplied</b> 4.5 Meter 16mm (Std) 4.5 Meter 25mm ( Turbo)</p> <p><b>Operating ambient Temp:</b> CM : 0 to 40 C Alternator: - 30 to 90 C</p> <p><b>Welding:</b> Type , DC welding, 50V DC OCV Rating : up to 225A (Turbo) up to 185 A ( Standard)</p>	<p><b>Welding Suitable for:</b></p> <ol style="list-style-type: none"> <li>a) Manual metal arc up to 4mm</li> <li>b) Gas metal Arc, (MIG accessories required to be converted to constant voltage output).</li> <li>c) Flux cored arc welding, (accessories required), self shielded wire up to 1.6mm</li> <li>d) Submerged Arc welding, (units can be connected in Parallel)</li> <li>e) Carbon-arc air Cutting or Gouging up to 4mm</li> </ol> <p><b>Protection:</b></p> <ul style="list-style-type: none"> <li>▪ Overload</li> <li>▪ Short circuit, between Live and Neutral</li> <li>▪ CM overheat</li> <li>▪ Power exceeding Alternator low RPM protection</li> <li>▪ In-line fuse to alternator for alternator overload</li> <li>▪ Battery overcharge</li> <li>▪ Solenoid Short or failure, protection</li> <li>▪ Main wire, bad connection detection</li> </ul> <p><b>Note:</b> Continuous 230 output can be increased by adding an optional fan if required.</p>
---	---	--

It remains the right of the manufacturer to modify specifications without prior notice. Please visit our website or contact us for an updated spec sheet. 0861 POWER1

