



ALTURDYNE



**LPG / Natural Gas / Gasoline
Engine Generator Sets
Liquid Cooled, Four-Cycle**

**15 to 125kW / 60 Hz
50 hz (.83) x 60 Hz Ratings**

PRELIMINARY

DESCRIPTION: Alturdyne Basic Model ARNG-XXX(kW rating)-060-H*

2001 RATINGS

Package Configuration

- Basic package consists of gas engine coupled to generator and assembled on structural steel skid with unit mounted radiator and pusher fan, control panel and accessories. Electronic governor is standard along with flex fuel lines and fuel filter (gasoline models) and base isolation pads.
- The Alturdyne designed/manufactured engine and generator control panel is unit mounted and contains ammeter, voltmeter, AM/VM select switch, frequency meter, voltage adjust rheostat, oil pressure gauge, water temperature gauge, three-position mode switch, panel lights, cyclor crank with safeties for overspeed, low oil pressure, high water temperature and overcrank. Customer connections and remote alarms are located on an isolated terminal strip.
- Generator loads terminate in oversize box or at back of circuit breaker located in adjacent NEMA 1 box.

Engine

- All engines are inline, multi-cylinder and spark ignited. Units are naturally aspirated (NA), turbocharged (T), or turbocharged with water aftercooling (TA). Carburetors, adapted to specified fuel, are used for fuel induction on all models. Emissions and acoustics are low. Accessories include fuel pump (gasoline models), primary and secondary fuel filters (gasoline models), lube oil pump and cooler,

lube oil filter, water pump, exhaust manifold, jacket water heater, stainless flex exhaust coupling, insulation blankets, DC starter and battery charging alternator.

Generator

- Generators are four pole, brushless broad range machines with a single permanently lubricated, double shielded radial ball bearing and flywheel disc drive coupling. The revolving field design contains a direct drive exciter and stator windings are 2/3 pitch with vacuum epoxy impregnation. Design is to NEMA and International Standards and insulation is either Class F or H. Generators feature a TIF of <50, low radio interference, a wave form deviation of <5%, harmonic content of 3% max and a voltage regulation of 1% with standard static regulator.

Optional Equipment

* Special voltages up to 600 volts and DC.

The following codes are used:

- G - 120/240 single phase
- P - 120/208 three phase
- R - 277/480 three phase
- S - 346/600 three phase
- E - 220/380 three phase
- X - Special (4,160)
- PMG is available along with 3 phase sensing which includes a parallel module and overvoltage protection with engine relief load acceptance. Additional RF protection is available.

- Special array of temperature rise (80°C and 130°C) generators available meeting NEMA MG1-22.84 standards.
- Custom designed control systems - Special metering - Bussing - Switch gear - Remote annunciator.
- Circuit breaker is an insulated case mounted in a NEMA 1 Box.
- Cooling: Remote radiator/hotwell tank - Heat exchangers.
- Fuel Systems: Pumps - Valves - Tanks (single and double wall, separate or skid mounted) - switches - water separators - pressure regulators - pressure controllers.
- Batteries: Lead acid - Lead calcium - Nickel cadmium - Heated boxes - Trickle chargers.
- Enclosures: Weather resistant - Thermal insulated - Sound attenuated - Spring isolation.
- Mechanical governing, AIRSEP vents.
- Prime power ratings.
- Radiator load banks.
- Spares.
- Loose ship kits.

SPECIFICATIONS: 15-125 KW - LPG/NATURAL GAS/GASOLINE - LIQUID COOLED - FOUR CYCLE - GENERAL MOTORS ENGINES - 2001 RATINGS

RATINGS (Standby) *	English / Metric	15KW	25KW	40KW	60KW	80KW	100KW	125KW	
RATINGS (Continuous)		12KW	20KW	30KW	45KW	65KW	80KW	100KW	
Engine Model/Configuration		3.0	3.0	4.3	5.7	8.1L	8.1L	8.1L7	
Cylinders		4	4	V-6	V-8	V-8	V-8	V-8	
Displacement	cu in / l	181 / 3.0	181 / 3.0	262 / 4.3	350 / 5.7	496 / 8.1	496 / 8.1	496 / 8.1	
HP	1800 RPM / 1500 RPM	43	43	59	88	120	150	186	
Fuel Consumption - NG (1,000 BTU/cu ft)	SCFH / SCMh	306 / 8.7	360 / 10.2	470 / 13.3	660 / 18.7	---	---	---	
Fuel Consumption - LPG (2,500 BTU/cu ft)	SCFH / SCMh	122 / 3.5	144 / 4.1	188 / 5.3	264 / 7.5	---	---	---	
Oil Sump Capacity	gal / ltr	1.3 / 4.7	1.3 / 4.7	1.1 / 4.3	1.3 / 4.7	---	---	---	
Coolant Capacity - Engine	gal / ltr	0.75 / 2.8	0.75 / 2.8	0.5 / 1.9	4.5 / 17.0	---	---	---	
Coolant Capacity - Engine & Radiator	gal / ltr	3.0 / 11.4	3.0 / 11.4	3.8/14.2	5.5 / 20.8	---	---	---	
Water Pump Flow - Engine	GPM / LPM	18.2 / 69	18.2 / 69	30.5 / 116	27 / 100	---	---	---	
Exhaust Gas Temperature	°F / °C	1160 / 626	1220 / 660	1350 / 732	1375 / 746	---	---	---	
Exhaust Gas Flow	cfm / m ³ /m	209 / 5.9	220 / 6.2	330 / 9.3	560 / 15.9	---	---	---	
Radiator Airflow	cfm / m ³ /m	4650 / 131.7	4752 / 134	5157 / 146	7115 / 201	---	---	---	
Heat Rejection to Engine	BTUM / KW	1373 / 24.1	1445 / 25.4	1770 / 31.1	2940 / 51.7	---	---	---	
Genset Radiated Heat	BTUM / KW	656 / 11.5	690 / 12.1	887 / 15.6	1650 / 47	---	---	---	
Electrical System	voltage	12	12	12	12	---	---	---	

DIMENSIONS AND WEIGHT **

Exhaust Flange Diameter	in	2"	2"	2"	2.5"	---	---	---	
Length	in / cm	60 / 152	60 / 152	62 / 157	78 / 198	---	---	---	
Width	in / cm	34 / 86	34 / 86	34 / 86	34 / 86	---	---	---	
Height	in / cm	44 / 112	44 / 112	44/112	50 / 126	---	---	---	
Weight	lb / kg	750 / 280	800 / 298	875 / 326	1500 / 560	---	---	---	

- Tier 1 emissions certification available.
- Acoustic data available.

* Ratings listed are for Standby operation only.

** Dimensions are for reference purposes only. Certified drawings provided upon placement of order.

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