



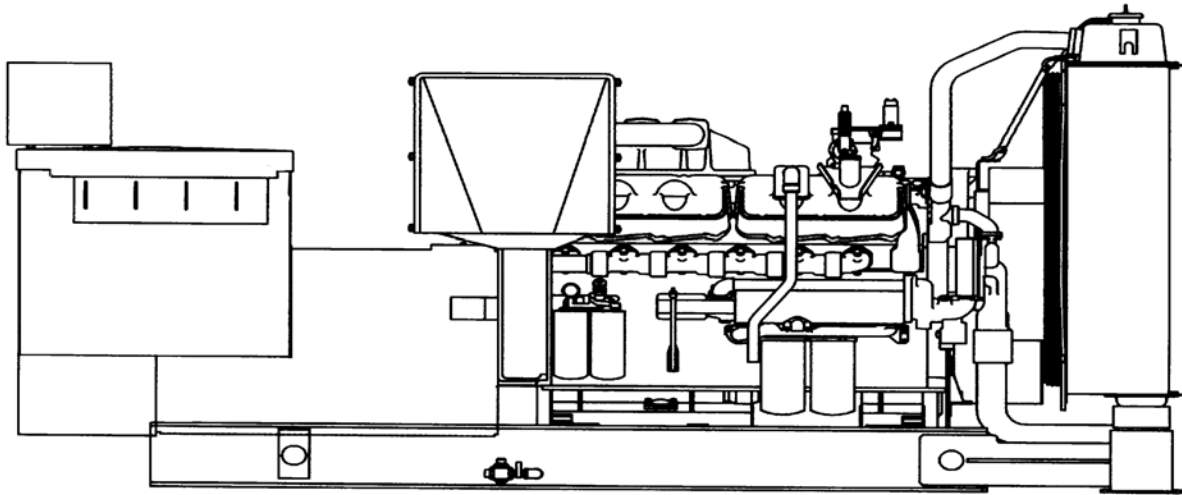
ALTURDYNE



**Gaseous Fueled
Engine Generator Sets
Liquid Cooled, Four-Cycle**

100 to 800KW / 60 Hz

50 Hz: (.83) x 60 Hz Ratings



DESCRIPTION: Alturdyne Basic Model ARNO-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 or remote mounted radiator and pusher fan, control panel and accessories. Electronic governor is standard along with flex fuel lines and fuel/water separator 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, cyclo crank with safeties for overspeed, low oil pressure, high water temperature and overcrank. Customer connections and remote alarms are located on isolated terminal strip.
- Generator leads terminate in an oversize box or at back of circuit breaker located in adjacent NEMA 1 box except for high voltage.

Engine

- Engines are inline or vee-type, spark ignited and have replaceable wet liners. Units are either naturally aspirated (NA) 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 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

- Cummins Power Command Control System
- * 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, except (x).
- Cooling: Remote radiator/hotwell tank - Heat exchangers.
- Fuel Systems: Valves - Water separators - Scrubbers - Pressure controllers - Pressure regulators - Multi-fuel capability kits - Low pressure gas capability.
- Batteries: Lead acid - Lead calcium - Nickel cadmium - Heated boxes - Trickle chargers.
- Enclosures: Weather resistant - Thermal insulated - Sound attenuated - Spring isolation.
- AIRSEP vents.
- Radiator load banks.
- Heat recovery modules.
- Spares.
- Loose ship kits.

SPECIFICATIONS: 100-800 KW - GASEOUS FUELED GENERATOR SET - LIQUID-COOLED - FOUR-CYCLE - CUMMINS ENGINES - 2001 RATINGS

| RATINGS (Standby) * | English / Metric | 125KW | 150KW | 180KW | 215KW | 250KW | 280KW | 325KW | 400KW | 500KW | 750KW | 800KW |
|--|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| RATINGS (Continuous) | | 110KW | 125KW | 155KW | 175KW | 210KW | 235KW | 290KW | 350KW | 445KW | 680KW | 725KW |
| Engine Model - Configuration | | GTA-8.3 GS1 | GTA-8.3 GS2 | GTA-12 | GTA-855-A | GTA14-G1 | GTA14-G2 | GTA19 | GTA28 | GTA28 | GTA50-G1 | GTA50-G2 |
| Cylinders / Type Injection Pump | | InLine-6 | InLine-6 | InLine-6 | InLine-6 | InLine-6 | InLine-6 | InLine-6 | V-12 | V-12 | V-16 | V-16 |
| Displacement | cu in/l | 505 / 8.3 | 505 / 8.3 | 505 / 8.3 | 855 / 14 | 855 / 14 | 855 / 14 | 1150 / 19 | 1710 / 28 | 1710 / 28 | 3067 / 50.3 | 3067 / 50.3 |
| Horsepower | 1800rpm | 202 | 240 | 287 | 330 | 395 | 435 | 494 | 770 | 770 | 1150 | 1220 |
| Fuel Consumption (Nat'l Gas) | cu ft/hr / l/hr | 1440 / 41 | 1914 / 54 | 2280 / 64 | 2625 / 74 | 2598 / 82 | 3358 / 131 | 3620 / 102 | 4860 / 136 | 6075 / 157 | 9927 / 281 | 10486 / 297 |
| Fuel Consumption (LPG) | cu ft/hr / l/hr | 576 / 16 | 766 / 21 | 912 / 26 | 1050 / 30 | 2287 / 65 | n/a | 1448 / 41 | 1944 / 60 | 2430 / 69 | n/a | n/a |
| Oil Sump Capacity | gal / l | 9 / 34.1 | 9 / 34.1 | 10.5 / 39.7 | 10.5 / 39.7 | 11 / 42 | 11 / 42 | 14.5 / 55 | 28 / 105 | 28 / 105 | 54 / 204 | 54 / 204 |
| Engine Coolant Capacity | gal / l | 2.9 / 10.9 | 2.9 / 10.9 | 5 / 19.2 | 5.5 / 20.8 | 5 / 19 | 5 / 19 | 8 / 30 | 21.3 / 80 | 21.3 / 80 | 162 / 613 | 162 / 613 |
| Engine & Radiator Capacity | gals / l | 28 / 106 | 28 / 106 | 25 / 95 | 25.5 / 96 | 31 / 115 | 31 / 115 | 33.3 / 126 | 43.5 / 165 | 43.5 / 165 | 266 / 1006 | 266 / 1006 |
| Water Pump Flow - Engine | gal/min / l/min | 55 / 208 | 55 / 208 | 87 / 329 | 90 / 341 | 113 / 428 | 113 / 428 | 189 / 715 | 214 / 810 | 214 / 810 | 549 / 2078 | 549 / 2078 |
| Exh Gas Temp - Aftercooler | °F / °C | --- | 4.5 / 17 | 27 / 102 | 27 / 102 | 26 / 98 | 26 / 98 | 27 / 102 | 27 / 102 | 27 / 102 | 42 / 159 | 42 / 159 |
| Exh Gas Temp - Stack | °F / °C | 1200 / 649 | 1200 / 649 | 1350 / 732 | 1350 / 732 | 1300 / 705 | 1350 / 732 | 1350 / 732 | 1350 / 732 | 1350 / 732 | 1150 / 621 | 1173 / 634 |
| Exhaust Gas Flow | cfm / m ³ /m | 1377 / 650 | 1485 / 42 | 1700 / 48 | 2041 / 58 | 2478 / 70 | 2537 / 1189 | 3268 / 93 | 4302 / 122 | 4302 / 122 | 10008 / 283 | 10500 / 297 |
| Airflow, Radiator | cfm / m ³ /m | 16000 / 453 | 21600 / 611 | 23500 / 665 | 23500 / 666 | 37000 / 1048 | 37000 / 1048 | 40000 / 1276 | 74000 / 2095 | 74000 / 2095 | 59000 / --- | 55772 / 1579 |
| Heat Rejected to Coolant - Engine | BTUM / kW | 7131 / 125 | 7264 / 128 | 10661 / 188 | 90 / 341 | 14308 / 252 | 15701 / 276 | 18049 / 317 | 29359 / 516 | 34540 / 609 | 47226 / 830 | 49882 / 876 |
| Heat Rejected to Coolant - Aftercooler | BTUM / kW | --- | 788 / 13.7 | 1376 / 24 | 27 / 102 | 1846 / 33 | 2026 / 36 | 2329 / 41 | 4240 / 69 | 5300 / 93.4 | 6094 / 107 | 6438 / 113 |
| Genset Radiated Heat | BTUM / kW | 1600 / 28.1 | 1631 / 29 | 2101 / 37 | 2308 / 41 | 2583 / 45 | 2968 / 52 | 3111 / 55 | 5734 / 101 | 6417 / 113 | 8320 / 147 | 8364 / 147 |
| Electrical System Voltage | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |

DIMENSIONS AND WEIGHT **

| | | | | | | | | | | | | |
|-------------------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| Exhaust Flange Diameter | in | 5" | 5" | 5" | 6" | 8" | 8" | 8" | (2) 6" | (2) 6" | (2) 8" | (2) 8" |
| Length | in / cm | 104 / 264 | 104 / 264 | 120 / 304 | 122 / 310 | 144 / 366 | 144 / 366 | 135 / 343 | 168 / 426 | 168 / 426 | 200 / 508 | 200 / 508 |
| Width | in / cm | 40 / 102 | 40 / 102 | 52 / 133 | 53 / 135 | 63 / 160 | 63 / 160 | 58 / 147 | 95 / 241 | 95 / 241 | 90 / 229 | 90 / 229 |
| Height | in / cm | 54 / 137 | 54 / 137 | 76 / 194 | 78 / 198 | 75 / 191 | 75 / 191 | 87 / 221 | 96 / 244 | 96 / 244 | 111 / 282 | 111 / 282 |
| Dry Weight | lb / kg | 3000 / 1364 | 3300 / 1500 | 5100 / 2318 | 5500 / 2052 | 6500 / 2425 | 6500 / 2425 | 7100 / 3221 | 13150 / 5964 | 13700 / 5110 | 18300 / 6826 | 18300 / 8296 |

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