

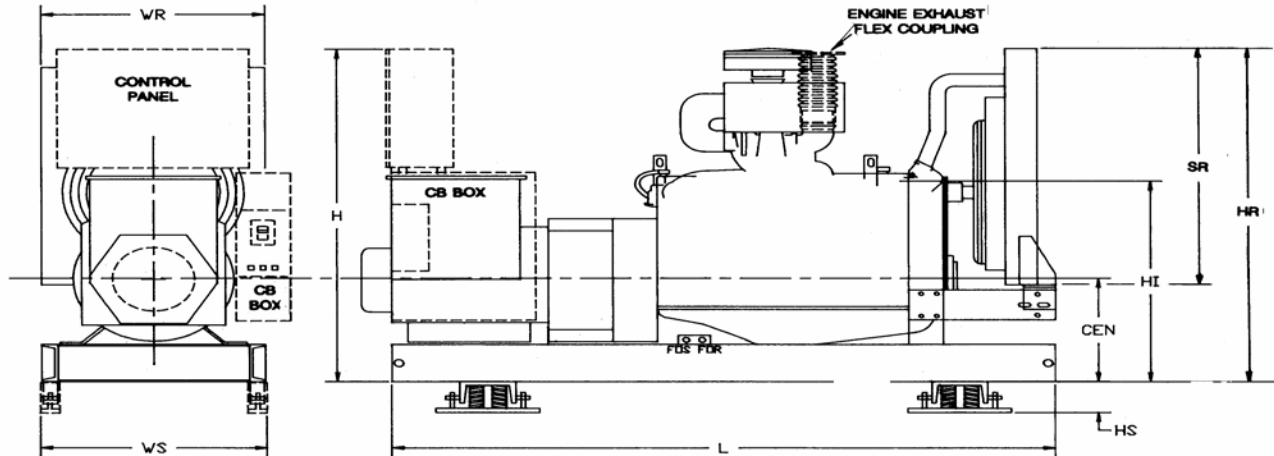


# ALTURDYNE



## Diesel Generator Sets Liquid Cooled, Four-Cycle

40 to 400kW / 60 Hz  
50 Hz: (.83) x 60 Hz Ratings



### DESCRIPTION: Alturdyne Basic Model ARDJ-XXX (kW rating)-060-H\* 2001 RATINGS

#### Package Configuration

- Basic package consists of diesel 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/water separator and base isolation pads.

- The Alturdyne designed/manufactured engine and generator control panel is unit mounted and contains ammeter, voltmeter, AM/V/M 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.

#### Engine

- All engines are in-line, multi-cylinder diesels with direct injection and have replaceable wet liners. Units are either naturally aspirated (NA), turbocharged (T), turbocharged with air aftercooling (TA) or turbocharged with water aftercooling (TW). Rotary (R) or in-line (I) injection pumps are used. Emissions and acoustics are low. Accessories include fuel pump, primary and secondary fuel filters, 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)
- D - DC (Direct Current)

- 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 exchanger.

- Fuel Systems: Pumps - Valves - Tanks (single and double wall, separate or skid mounted) - switches - water separators.

- Batteries: Lead acid - Lead calcium - Nickel cadmium - Heated boxes - Trickle chargers.

- Enclosures: Weather resistant - Thermal insulated - Sound attenuated - Spring isolation.

- Mechanical governing.

- Prime power ratings.

- Radiator load banks.

- Spares.

- Loose ship kits.

- Transfer Switches

- Extended Warrantee / Service

# SPECIFICATIONS: 40-400KW - DIESEL GENERATOR SET - LIQUID COOLED - FOUR CYCLE - JOHN DEERE ENGINE - 2001 RATINGS

RATINGS (Standby) <sup>6</sup>	English / Metric	40KW <sup>1</sup>	60KW <sup>2</sup>	75KW <sup>2</sup>	100KW <sup>2</sup>	125KW <sup>2</sup>	150KW <sup>4</sup>	180KW <sup>4</sup>	200KW <sup>5</sup>	250KW <sup>5</sup>	300KW <sup>5</sup>	350KW <sup>5</sup>	400KW <sup>5</sup>
Engine Model - Configuration		4045DF150	4045TF150	4045TF250	6068TF150	6068TF150	6081AF001	6081AF001	6081AF001	6081HF001	6125HF001	6125HF001	6125HF001
Cylinders / Type Injection Pump		4/Rotor	4/Rotor	4/Rotor	6/Rotor	6/Rotor	6/Inline	6/Inline	6/Inline	6/Inline	6/Unit E.C.	6/Unit E.C.	6/Unit E.C.
Displacement	cu in/l	276/4.5	276/4.5	276/4.5	414/6.8	414/6.8	496/8.1	496/8.1	496/8.1	496/8.1	766/12.5	766/12.5	766/12.5
Horsepower	1800rpm / 1500rpm	71/59	100/83	122/111	165/137	198/165	250/210	300/250	347/302	413/359	483/405	563/472	716/596
BMEP (1800 rpm Standby)	psi / kPa	113/781	160/1105	194/1341	167/1150	202/1395	222/1530	266/1835	308/2126	368/2538	277/1910	323/2227	353/2436
Fuel Consumption (Full Load)	gal/hr / l/hr	3.6/13.8	4.9/18.5	6.1/23.3	8.1/30.6	9.3/35.2	11.8/44.7	14.4/54.7	16.9/64	19.5/74.2	20.3/77.2	25.1/95.3	30.8/117
Oil Sump Capacity <sup>10</sup>	qt / l	9/8.5	14/13.2	14/13.2	18/17	18/17	34/32	34/32	34/32	34/32	44/42	44/42	44/42
Engine Jacket Water Capacity	gal / l	2.25/8.5	2.25/8.5	2.25/8.5	3/11.3	3/11.3	4/15	4/15	4/15	3.75/14	4.3/16.2	4.3/16.2	4.3/16.2
Engine & Radiator Capacity	gals / l	3.9/14.7	4.1/15.7	5.55/21.2	6.3/24.0	6.3/24.0	14.5/55.2	14.5/55.2	TBA	TBA	18.1/68.2	18.1/68.5	18.1/68.5
Water Pump Flow	gal/min / l/min	38/144	38/144	38/144	46/174	46/174	71/270	71/270	75/285	71/270	73/276	73/276	73/276
Exhaust Gas Temp (Stack)	°F / °C	1103/595	946/508	1026/552	1011/544	1112/600	1060/570	1020/550	927/497	957/514	743/395	815/435	936/502
Exhaust Gas Flow	cfm / m <sup>3</sup> /m	318/9	480/13.6	614/17.4	787/22.3	918/26.0	1210/34.3	1695/48	1854/52.5	2052/58.1	2295/65	2755/78	3069/87
Engine Heat Rejection	BTUM / kW	1820/32	2445/43	2959/52	3869/68	4324/76	6170/108	7390/130	8251/145	5485/96	7654/135	9820/173	9502/167
Air Flow (room), Remote Cooling	cfm / m <sup>3</sup> /m	2120/60	2750/78	3030/86	6893/195	8760/248	6100/173	7240/205	8970/254	11050/313	13650/386	16050/454	17500/496
Combustion Airflow	cfm / m <sup>3</sup> /m	117/3.3	187/5.3	230/6.5	297/8.4	325/9.2	440/12.5	635/18	756/21.4	749/21.2	1024/29	1180/33.5	1280/36.2
Genset Radiated Heat	BTUM / kW	952/17	1234/22	1364/24	1475/25.9	1661/29.2	2749/48	3259/57	4036/71	4972/87	6145/108	7226/127	8258/145
Electrical System Voltage		12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	24	24	24
Recommended Battery (32°F/0°C) CCA (12V/24V)		640/570	640/570	640/570	800/570	800/570	800/570	800/570	800/570	800/570	900	900	900

## DIMENSIONS AND WEIGHT

Diameter Exhaust Outlet, External	in / cm	2.43/6.20	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16	4.0/10.16
Length, Overall (L) *	in / cm	72/183	76/193	76/193	90/229	90/229	96/244	96/244	96/244	120/305	120/305	120/305	120/305
Width, Skid (WS) *	in / cm	32/81	32/81	32/81	32/81	32/81	32/81	32/81	32/81	36/91	36/91	36/91	36/91
Radiator Core Duct (RW) x (RH) *	in / cm	20x20/51x51	26x28/66x71	26x28/66x71	26x28/66x71	26x28/66x71	28x30/71x76	28x30/71x76	28x30/71x76	32x36/81x91	45x40/114x102	45x40/114x102	45x40/114x102
Height, Spring (HS) *	in / cm	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7	5/12.7
Height, Overall (H) *	in / cm	64/163	64/163	64/163	64/163	64/163	66/168	66/168	66/168	68/173	70/178	70/178	70/178
Height, Injectors (HI) *	in / cm	36/91	36/91	36/91	36/91	36/91	38/96.5	38/96.5	38/96.5	42/107	42/107	42/107	42/107
Radiator Center (RC) *	in / cm	30/76	35/89	35/89	35/89	35/89	37.5/95	37.5/95	37.5/95	39/99	39/99	39/99	39/99
CEN *	in / cm	19/48	19/48	19/48	19/48	19/48	21/53	21/53	21/53	24/61	24/61	24/61	24/61
Dry Weight *	lb / kg	2050/930	2450/1111	2550/1157	2477/1124	2477/1124	3550/1610	3550/1610	4150/1882	4400/1996	5850/2654	5850/2654	6500/2954

- 01: Derate 3.0% per 1,000 feet (305 m.) above 600 feet (183 m.) and 1.5% per 10°F (5.5°C) above 77°F (25°C)  
 02: Derate 3.0% per 1,000 feet (305 m.) above 500 feet (153 m.) and 0.5% per 10°F (5.5°C) above 77°F (25°C)  
 03: Derate 3.0% per 1,000 feet (305 m.) above 7,500 feet (2,236m.) and 0.5% per 10°F (5.5°C) above 77°F (25°C)  
 04: Derate 0.5% per 1,000 feet (305 m.) above 3,300 feet (1,006 m.) and 0.5% per 10°F (5.5°C) above 77°F (25°C)  
 05: Derate 0.5% per 1,000 feet (305 m.) above 1,000 feet (305 m.) and 0.5% per 10°F (5.5°C) above 77°F (25°C)  
 06: Derate 10.0% for Prime kW rating. Standby ratings listed are ±5% at SAE J1995 and ISO 3046  
 07: Materials and specifications may change without notice  
 08: Maximum allowable exhaust stack back pressure = 30 inches or 762 mm. water column  
 09: Maximum radiator discharge back pressure = 0.5 inches or 12.7 mm. water column  
 10: Average oil consumption = 0.0008 lb/Bhp/hr (1 qt = 1.9 lb)  
 11: Emissions

\* Dimensions listed are for reference purposes only. Certified drawings are provided on placement of order.

**ALTURDYNE**  
 660 Steele Street El Cajon, CA 92020  
 Tel: 619/440-5531 Fax: 619/442-0481  
 Email: [info@alturdyne.com](mailto:info@alturdyne.com)