



Commercial 6.0/7.5 kW Diesel GenSet

Diesel
7.5 kW 60 Hz
6.0 kW 50 Hz



Commercial GenSet

- Smooth Operation - Focalized Mounting System with 4-Point Vibration Isolation
- Glow Plugs for Reliable All-Weather Starting
- Installation Flexibility with Remountable 90° Exhaust Elbow, Remountable DC Control and Multiple Oil Fill/Check Points
- Cross-Flow Radiator for Increased Cooling Efficiency
- Water Resistant Controls
- Low Harmonic Distortion for SCR Loads

Models and Ratings

| Model | Fan | Hz | Watts | Voltage | Amps | PF | Phase | Circuit Breaker |
|------------|---------|----|-------|----------|-----------|-----|-------|-----------------|
| 7.5HDKAL-1 | Pusher | 60 | 7,500 | 120/240 | 62.5/31.3 | 1.0 | 1 | 2-pole, 35 A |
| 7.5HDKAL-2 | Suction | 60 | 7,500 | 120/240 | 62.5/31.3 | 1.0 | 1 | 2-pole, 35 A |
| 7.5HDKAL-3 | Pusher | 60 | 7,500 | 120/240* | 22.6 | 0.8 | 3 | 3-pole, kit |
| 7.5HDKAL-4 | Suction | 60 | 7,500 | 120/240* | 22.6 | 0.8 | 3 | 3-pole, kit |
| 7.5HDKAL-5 | Pusher | 60 | 7,500 | 100/200 | 75/37.5 | 1.0 | 1 | 2-pole, 40 A |
| 7.5HDKAL-6 | Suction | 60 | 7,500 | 100/200 | 75/37.5 | 1.0 | 1 | 2-pole, 40 A |
| 6HDKAL-7 | Pusher | 50 | 6,000 | 115/230 | 52.1/26.1 | 1.0 | 1 | 2-pole 30 A |
| 6HDKAL-8 | Suction | 50 | 6,000 | 115/230 | 52.1/26.1 | 1.0 | 1 | 2-pole, 30 A |
| 6HDKAL-9 | Pusher | 50 | 6,000 | 115/230* | 18.8 | 0.8 | 3 | 3-pole, kit |
| 6HDKAL-10 | Suction | 50 | 6,000 | 115/230* | 18.8 | 0.8 | 3 | 3-pole, kit |

*Three-phase models are 12-lead reconnectable for a broad range of voltage applications.

All 60 Hz models operate at 1800 r/min. All 50 Hz models operate at 1500 r/min.

Ratings apply to altitudes up to 500 ft (152.4 m), 104° F (40° C) ambient with No. 2 diesel fuel.

Derating: Power output will decrease 3.5% for each 1000 ft (305 m) above 500 ft (153 m) and 1% for each 10° F (5.5° C) increase in ambient temperature above 85° F (29° C).

Weight, Size and Sound Level

- 490 lb (223 kg), wet
- **60 Hz:** Length 37.3 in (947 mm), Width 21.0 in (535 mm), Height 23.9 in (607 mm); 76 dB(A) at 10 ft (3 m), 63 dB(A) at 50 ft (15m) before installation, full load
- **50 Hz:** Length 38.27 in (972 mm), Width 21.0 in (535 mm), Height 23.9 in (607 mm); 75 dB(A) at 10 ft (3 m), 61 dB(A) at 50 ft (15m) before installation, full load

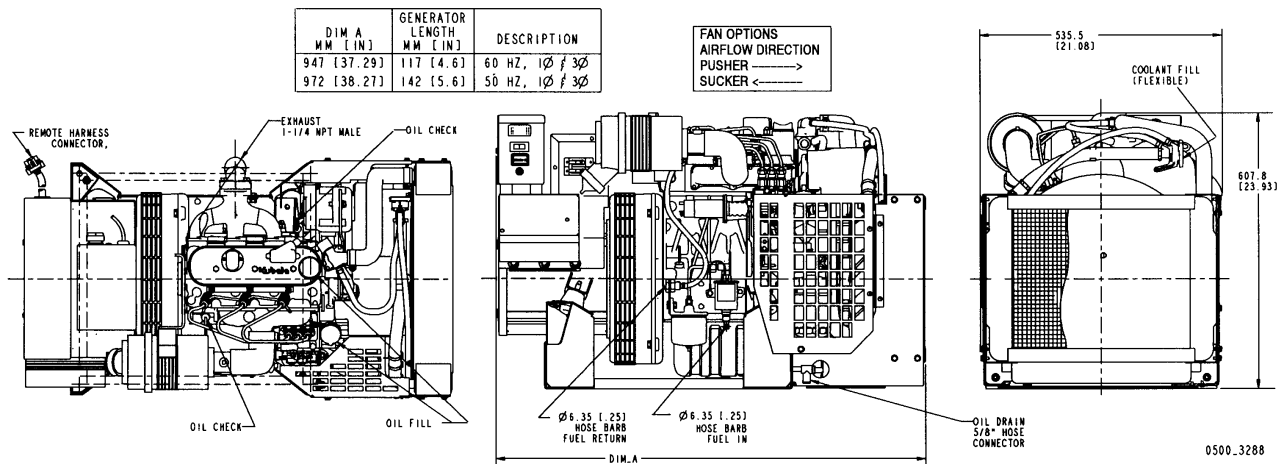
Standard Features

- 3-cylinder diesel engine
- Brush type AC alternator
- Focalized mounting system with 4-point vibration isolators
- Cross-flow radiator
- Full flow lube oil filter
- Fuel filter/water separator
- Vertically mounted fuel and oil filters
- Replaceable element air cleaner
- Remote mountable DC control box
- 4-position exhaust elbow
- 30 A battery charging DC alternator
- Lifting bracket
- Glow plugs for easy starting
- Base pan for drip control
- Electric fuel pump
- Top and side oil fill and check for platform or compartment installations

Accessories

- USDA Forest Service approved spark arrestor muffler (part #155-2068)
- Exhaust resonator (part #155-2653)
- Remote gauge package with start/stop/preheat switch, DC voltage meter, water temperature gauge, running time meter (part #300-5026)
- DC gauge package - DC voltage meter, water temperature gauge, oil pressure gauge; can be set mounted or remote mounted (part #300-4966)
- Junction harness (for use with DC gauge package and a remote control panel) (part #338-3526)
- Oil pressure sender (part #193-0244-99)
- Water temp sender (part #193-0318)
- Remote control panel, switch only (part #300-4939)
- Remote control panel, switch and hourmeter (part #300-4940)
- Remote control panel, switch and DC voltmeter (part #300-4941)
- Remote harness (for use with above panels) 10 ft (part #338-3490-01), 30 ft (part #338-3490-02)
- Remote harness pigtail (part #300-4947)
- Remote harness pigtail at panel (part #338-3573)
- Battery, 12 V, 660 cold cranking amps at 0°F (-17.8°C) (wet) (part #416-0796)
- Battery, 12 V, 620 cold cranking amps at 0°F (-17.8°C) (dry) (part #416-0823)
- Engine block heater (part #333-0593)
- Racor® fuel filter/water separator (part #149-2573)
- Auxilliary alternator air cooling kit on suction fan units for compartment mounted gensets (part #140-3214)

Basic Dimensions



This outline drawing is provided for general reference only and is not intended for design or installation. For more information see installation manual or obtain outline drawing 500-3288 and wiring diagram from your Distributor/Dealer.

Engine Detail

Model: Kubota D1105
Design: 4-cycle, liquid-cooled diesel engine
Cylinders: 3, inline vertical
Bore: 3.07 in (78.0 mm)
Stroke: 3.09 in (78.4 mm)
Displacement: 68.53 in³ (1124 cm³)
Compression ratio: 23:1
Lube oil capacity: 4 qt (3.8 L) including filter

Power (max): at 1800 r/min: 13.1 hp
Cooling system capacity: 1.25 Gal (4.73 L)
Starting system: Remote, 12 V, 1.2 kW starter
Fuel injection pump: Bosch K mini
Fuel pump: Electric
Combustion chamber: Spherical

Typical fuel consumption

No. 2 diesel fuel, Gal/hr (L/hr)

| | No load | Half load | Full load |
|----------|-------------|-------------|------------|
| 7.5HDKAL | 0.25 (0.95) | 0.56 (1.93) | 0.9 (3.41) |
| 6.0HDKAL | 0.23 (0.87) | 0.46 (1.74) | 0.8 (3.03) |

Alternator Detail

Design: Onan, brush type, drip proof construction
Insulation system: Class F, per NEMA MGI-1.65 and BS 2757; insulating varnish conforms to MIL-I-24092, grade CB, Class 155 C
Three-phase models: Broad range reconnectable design for installed voltage flexibility
Exciter system: Electronic voltage regulation

Bearing: Double sealed pre-lubricated ball bearing
Cooling: Direct drive centrifugal blower
Damper bar system: Generator design incorporates a damper bar system for low harmonic waveform distortion. This design feature becomes significant when powering SCR type loads (converters, etc.)

GenSet Detail

| | No load - full load | Constant load |
|-----------------------|---------------------|---------------|
| Voltage regulation: | ± 2.5% | ± 1% |
| Frequency regulation: | ± 2.5% | ± 1% |

Control

- Unit mounted, drip-proof, vibration isolated console
- DC Controls, 12 V system**
- Start/stop/preheat switch
 - Remote connector for start/stop/preheat switch and gauge package
 - Manual reset fault relay indicating engine shutdown for high coolant temperature, low oil pressure
 - Hourmeter

AC Controls

- Electronic voltage regulator
- Three-phase models, factory shipped reconnectable (no breaker)
- Three-phase breaker kits available for field fitted installation

Warranty Policy

The ONAN limited warranty covers virtually everything except routine maintenance for the first two years you own your generator set, or the first 2,000 hours of operation, whichever comes first. In addition, it includes a free 90-day adjustment policy, which provides that Onan will make minor adjustments to your new genset during the first three months you own it - free of charge!

For complete Onan limited warranty details see your certified Onan Distributor/Dealer.

After Sale Support

EASY TO LOCATE CERTIFIED ONAN SERVICE AND PARTS DEALERS - Onan has the largest and best-trained worldwide certified Distributor/Dealer network in the industry, offering on-time parts and service, and installation assistance. Cummins Onan Distributor/Dealers stock and sell commonly used Onan GenSet maintenance parts, accessories and products, plus operator manuals and literature on current Onan GenSets. They can help you select and install the right genset or accessories on older models, or provide answers to questions on proper operation and maintenance procedures.

MANUALS - Installation and operators manuals are shipped with the genset. To obtain additional copies or other manuals for this model, see your Cummins Onan Distributor/Dealer and request the following part numbers: Operators Manual (981-0104), Parts Manual (981-0256B), Service Manual (981-0523B), and Installation Manual (981-0613).

Standards and Testing

Tested at extremes of temperature -20° F to 120° F for starting and operation.
Tested with commercial loads.

Tested in high humidity conditions.

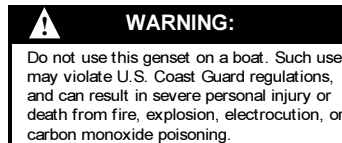
Tested in salt spray conditions.

Tested in heavy air borne dust conditions.

Field Test Program.

This product meets U.S. EPA Tier II.

This generator set was designed and manufactured in facilities certified to ISO 9001.



Contact your Distributor/Dealer for more information:

To locate the nearest Onan Distributor/Dealer, or for more information, contact Onan at 1-800-888-ONAN or 763-574-5000; 1400 73rd Avenue N.E., Minneapolis, MN 55432 U.S.A.; fax 763-574-5298; www.onan.com.

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WARNING: Backfeed to utility systems can cause electrocution or property damage. Do not connect to building electrical except through approved device and after building main breaker is opened.

