



## Specification Sheet

# Commercial Mobile Generator

## ONAN SD 7.5 60Hz/6.0 50Hz



### Features and Benefits

- 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

### Weight, Size and Sound Level

<b>Weight</b>	490 lbs	(223 kg)
<b>Length</b>	60Hz 37.3 in 50Hz 38.3 in	(947 mm) (972 mm)
<b>Width</b>	60Hz 21.0 in 50Hz 21.0 in	(535 mm) (535 mm)
<b>Height</b>	60Hz 23.9 in 50Hz 23.9 in	(607 mm) (607 mm)
<b>Sound</b>	60 Hz 76 dB(A) 50 Hz 75 dB(A)	Readings at 10 ft (3 m), before installation, full load

### Models and Ratings

Model	Fan	Hz	Watts	Voltage	Amps	PF	Phase	Circuit breaker
<b>6 HDKAL-5009#</b>	Suction	50	6000	115/230	52/26	1.0	1	(1) 2 Pole, 30 A
<b>6 HDKAL-7</b>	Pusher	50	6000	115/230	52/26	1.0	1	(1) 2 Pole, 30 A
<b>6 HDKAL-8</b>	Suction	50	6000	115/230	52/26	1.0	1	(2) 2 Pole, 30 A
<b>7.5 HDKAL-1</b>	Pusher	60	7500	120/240	63/31	1.0	1	(3) 2-Pole, 35A
<b>7.5 HDKAL-2</b>	Suction	60	7500	120/240	63/31	1.0	1	(4) 2-Pole, 35A
<b>7.5 HDKAL-5010#</b>	Internal	60	7500	120/240	63/31	1.0	1	(5) 2-Pole, 35A
<b>7.5 HDKAL-3</b>	Pusher	60	7500	120/240*	22.6	0.8	3	(6) 3-Pole, Kit
<b>7.5 HDKAL-5</b>	Pusher	60	7500	100/200	75/38	1.0	1	(7) 2-Pole, 40A
<b>7.5 HDKAL-7</b>	Internal	60	7500	115/230	52/26	1.0	1	(8) 2-Pole, 30A
<b>7.5 HDKAL-8</b>	Internal	60	7500	115/230	52/26	1.0	1	(9) 2-Pole, 30A
<b>7.5 HDKAL-5011#</b>	Pusher	60	7500	120/240*	22.6	0.8	3	(10) 3-Pole, Kit

- All 60 Hz models operate at 1800 r/min. All 50 Hz models operate at 1500 r/min.
- Ratings apply up to 500 ft (152 m) altitude, 104° F (40° C) ambient\*\* with No. 2 diesel fuel.
- Temperature: Power output decreases 1% for every 10° F (5.5° C) increase
- Altitude: Power output decreases 3.5% for every 1000 ft (305 m) increase
- Ratings are at intermittent power output.
- Continuous rating is 85% of intermittent output.

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

\*\* Ambient is defined as the air temperature measured at the cooling air inlet to the set

# With export packaging.

## 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

## Engine Details

**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 in<sup>3</sup> (1124 cm<sup>3</sup>)  
**Compression ratio:** 24:1  
**Lube oil capacity:** 5.39 qt (5.1 L)  
**Power (max):** At 1800 r/min: 17.1 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  
**Combustion chamber:** Spherical

## Typical Fuel Consumption

No. 2 Diesel Fuel	No load	Half load	Full load
<b>6.0 HDKAL</b>	0.23 Gal/h (0.87 L/h)	0.46 Gal/h (1.74 L/h)	0.80 Gal/h (3.03 L/h)
<b>7.5 HDKAL</b>	0.25 Gal/h (0.95 L/h)	0.56 Gal/h (1.93 L/h)	0.9 Gal/h (3.41 L/h)

## Alternator Details

**Design:** Cummins, 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 set design incorporates a damper bar system for low harmonic waveform distortion. This design feature becomes significant when powering SCR type loads (converters, etc.)

<b>Frequency regulation</b>	No load/Full load	2.5%
<b>Voltage regulation</b>	No load/Full load	2.5%

## Generator Set Performance

### 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
  - Hour meter

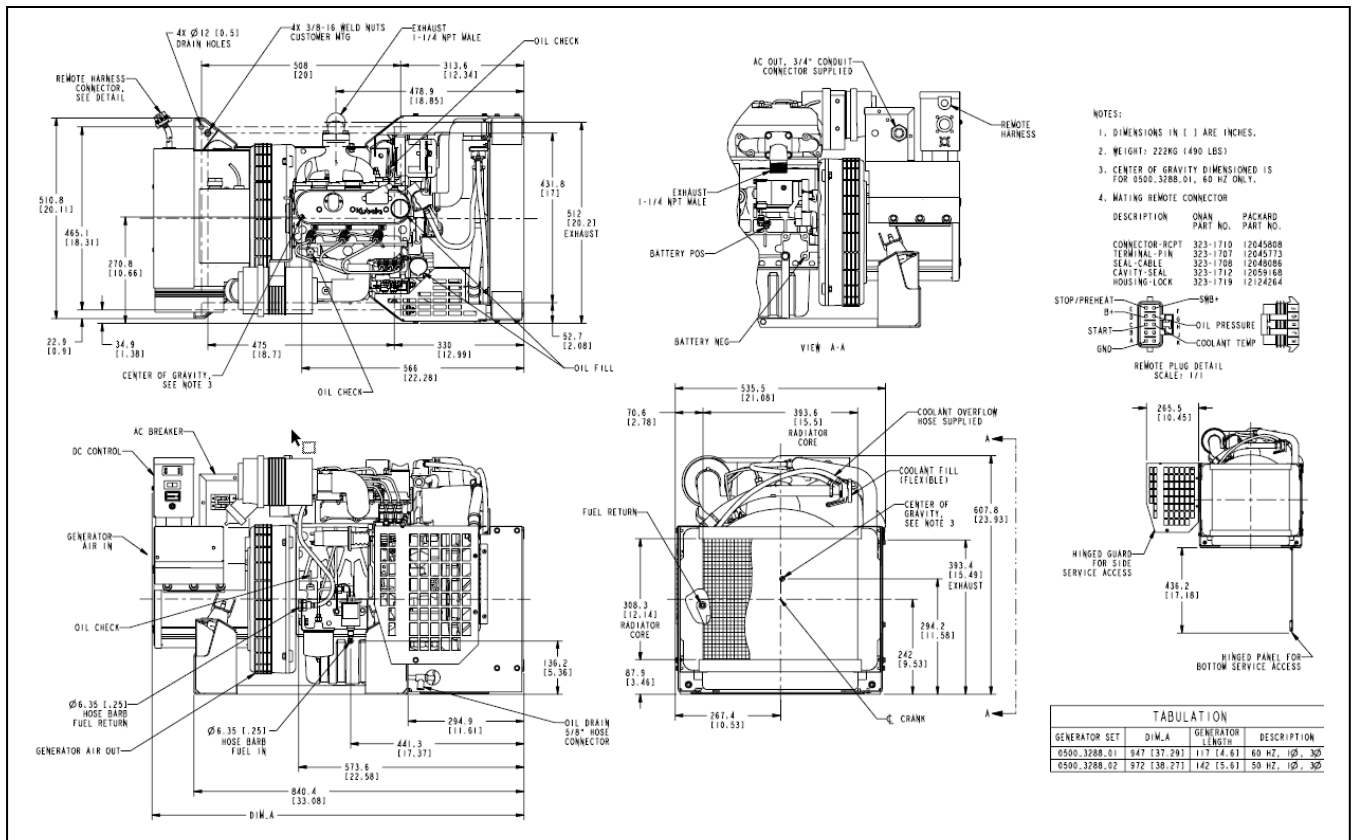
### AC controls

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

<b>Frequency regulation</b>	Constant load	1%
<b>Voltage regulation</b>	Constant load	1%

## Basic Dimensions

Dimensions mm (in)



**Note:** This outline drawing is provided for general reference only and is not intended for design or installation. For more information see Operation and Installation manuals or obtain drawing 0500-3288 and wiring diagram from your distributor/dealer.

## Accessories

- USDA Forest Service approved spark arrestor muffler (P/N 155-2068)
- Exhaust resonator (P/N 155-2653)
- Remote gauge package with start/stop/preheat switch, DC voltage meter, water temperature gauge, running time meter (P/N 300-5026)
- DC gauge package – DC voltage meter, water temperature gauge, oil pressure gauge; can be set mounted or remote mounted (P/N 300-4966)
- Junction harness (for use with DC gauge package and a remote control panel) (P/N 338-3526)
- Oil pressure sensor (P/N 193-0244-99)
- Water temp sensor (P/N 193-0318)
- Remote control panel, switch only (P/N 300-4939)
- Remote control panel, switch and hour meter (P/N 300-4940)
- Remote control panel, switch and DC voltmeter (P/N 300-4941)
- Remote harness (for use with above panels) 10 ft (P/N 338-3490-01), 30 ft (P/N 338-3490-02)
- Remote harness pigtail (P/N 300-4947)
- Remote harness pigtail at panel (P/N 338-3573)
- Engine block heater (P/N 333-0593)
- Racor® fuel filter/water separator (P/N 149-2573)
- Auxiliary alternator air cooling kit on suction fan units for compartment mounted generator sets (P/N 140-3214)

## Standards and Testing

- Tested at extremes of temperature -20 °F (-29 °C) to 120 °F (49 °C) for starting and operation
- Tested with commercial loads
- Tested in high humidity conditions
- Tested in salt spray conditions
- Tested in heavy airborne dust conditions
- Field test program
- This product meets U.S. EPA Tier IV
- This generator set was designed and manufactured in facilities certified to ISO 9001
- CSA certified for CSA C22.2 std 100 and std 14



## Warranty Policy

The limited warranty covers any failures of the product resulting from a defect in material or factory workmanship under normal use and service for 2 years from warranty start date or 2,000 hours, whichever occurs first. Parts and labor will be covered for warrantable failures except routine maintenance during two years warranty coverage period.

## After sale support

### Largest Distributor/Dealer Support Network:

Cummins generator sets are supported by the largest and best trained worldwide authorized distributor/dealer network in the industry. This network of knowledgeable Cummins distributor/dealers will help you select and install the right generator set and accessories to meet the requirements of your specific application. This same network offers a complete selection of commonly used generator set maintenance parts, accessories and products plus manuals and specification sheets. They can answer your questions regarding proper operation, maintenance schedules and more.

**Manuals:** Operation and installation manuals ship with the generator set. To obtain additional copies or other manuals for this model, see your Cummins sales or service representatives and request the following manual numbers: Operation (981-0104), Installation (981-0613), Parts (981-0289), Service (981-0523B). To easily locate the nearest Cummins distributor/dealer in your area, or for more information, contact us at 1-800-CUMMINS, or [www.power.cummins.com](http://www.power.cummins.com)

<b>!</b>	<b>WARNING:</b>
Do not use this generator set on a boat. Such use may violate U.S. Coast Guard regulations, and can result in severe personal injury or death from fire, explosion, electrocution, or carbon monoxide poisoning.	

<b>!</b>	<b>WARNING:</b>
Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building electrical except through an approved device or after building main breaker is open.	

Contact your distributor/dealer for more information.



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