



Specification Sheet

Commercial Mobile Generator

ONAN SD 20 60Hz



Features and Benefits

- Tier 4 EPA certified without regeneration
- Powerful 36 hp engine
- PowerCommand Control 1.3 standard
- Low vibration for smooth operation
- Cross-flow radiator for increased cooling efficiency

Weight, Size and Sound Level

Weight	1035 lbs	(2282 kg)
Length	57.2 in	(1453 mm)
Width	25.7 in	(653 mm)
Height	28.2 in	(717 mm)
Sound	88.3 dB(A)	Readings at 3 ft (1 m), before installation, full load

- Typical installation will further reduce sound level.

Models and Ratings

Model	Fan	Hz	Watts	Voltage	Amps	PF	Phase	Circuit breaker
20HDKDB-01	Pusher	60	20,000	120/240	83	1.0	1	(1) 3-pole, 100 A
20HDKDB-02	Pusher	60	20,000	120/208	69	0.8	3	(1) 3-pole, 100 A

- All 60 Hz models operate at 1800 r/min
- Ratings are at intermittent power output
- Continuous rating is 85% of intermittent output
- Alternator is 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

Altitude		Generator set derate table						
feet	meters							
11811	3600	0.87	0.80	0.74	0.68	0.63	0.59	
10827	3300	0.90	0.83	0.76	0.70	0.65	0.61	
9843	3000	0.92	0.85	0.79	0.73	0.67	0.62	
8858	2700	0.95	0.88	0.81	0.75	0.69	0.64	
7874	2400	0.98	0.90	0.83	0.77	0.72	0.66	
6890	2100	1.00	0.93	0.86	0.80	0.74	0.69	
5906	1800	1.00	0.96	0.89	0.82	0.76	0.71	
4921	1500	1.00	0.99	0.91	0.85	0.78	0.73	
3937	1200	1.00	1.00	0.94	0.87	0.81	0.75	
2953	900	1.00	1.00	0.97	0.90	0.83	0.78	
1969	600	1.00	1.00	1.00	0.93	0.86	0.80	
984	300	1.00	1.00	1.00	0.95	0.89	0.82	
0	0	1.00	1.00	1.00	0.98	0.91	0.85	
Ambient (°C)	0	10	20	30	40	50		
Ambient (°F)	32	50	68	86	104	122		

Standard Features

- 3-cylinder diesel engine, radiator cooled
- Right hand service and maintenance items
- PC1.3 generator set controller
- LCD screen with embedded hour meter
- Instant one-touch stop
- Over voltage, low oil pressure, over temp, over speed and overload* safeties
- Automatic timed glow plugs for quick easy start
- Easy access fuse/relay box
- Pure sine wave output
- Digital voltage regulation
- Maintenance free electronic governor
- Integral enclosed muffler
- Integral 4-point vibration isolation system
- Relocatable bulkhead fuel and battery connections
- Circuit breaker connection
- Electric fuel pump, long-life fuel filter
- Spin-on, full-flow oil filter
- 60 amp battery charging alternator
- Water resistant controls

Engine Details

Model: Kubota D1803-CR-TIE4BG
Design: 4-cycle, liquid-cooled diesel engine
Cylinders: 3, inline vertical
Bore: 3.43 in (87 mm)
Stroke: 4.03 in (102 mm)
Displacement: 111.4 in³ (1826 cm³)
Compression Ratio: 16:1
Lube Oil Capacity: 7.4 qt (7 L)
Cooling System Capacity: 12 qt (11.4 L)
Power (max): At 1800 r/min 36.2 hp (27.0 kW) EPA Tier 4F non-road
Aftertreatment: Diesel Oxidation Catalyst (DOC)
Starting System: 12 V
Combustion Chamber: Direct injection

Typical Fuel Consumption

No. 2 Diesel Fuel	No load	Half load	Full load
20 HDKDB	0.14 Gal/h (0.5 L/h)	0.70 Gal/h (2.6 L/h)	1.44 Gal/h (5.5 L/h)

Alternator Details

Design: 4-pole synchronous
Insulation System: Class H
Exciter System: Self exciting
Bearings: Single
Cooling: Direct drive centrifugal blower

Generator Set Performance

Control:

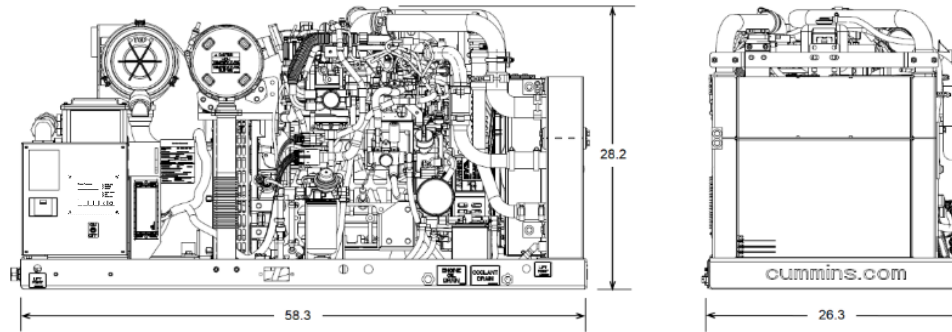
- Microprocessor control
- User and service personnel accessible diagnostics
- Fused DC circuits
- Over voltage safety
- Hour meter
- Water resistant control switches
- Low oil pressure safety
- Overload safety*
- Automatically times glow plugs
- One- touch stop

Frequency regulation	No load/Full load	5%	Frequency regulation	Constant load	0.2%
Voltage regulation	No load/Full load	10%	Voltage regulation	Constant load	0.5%

*When equipped with current transformers

Basic Dimensions

Dimensions in (inches)



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 HDKDB-01 and wiring diagram A064T711 from your distributor/dealer or QuickServe Online.

Operating temperatures from -20°F (-29°C) to 138°F (59°C)

Accessories

- Remote HMI with 20' harness (P/N A065Z330)
- Current transformers (P/N A043E633)

Testing for CM Application

- Tested at -20°F (-29°C) for starting and operation
- Tested with commercial loads
- Tested in high humidity conditions
- Designed to resist salt spray conditions – no direct spray allowed
- 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 documents for this model, visit QuickServe Online or request from your Cummins sales or service representatives: Installation manual (A066T981), Operation manual (A066T982), spare parts list (A066T983).

Parts: Parts lists available through QuickServe Online.

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

! WARNING:

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.

! WARNING:

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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