

Hydraulic
Generator
20 kW 60 Hz



Commercial GenSet

- Can Start and Run GenSet Anytime the Vehicle Engine is Operating
- Onan Custom Engineered Hydraulic Generator System
- High Motor Starting Capability
- Meets NFPA 120° F (48° C) Ambient* Standard
- Single Side Serviceability
- 100% Stainless Steel Housing/Multiple Air Inlets (4)
- Four-Point Vibration Isolated Mounting System
- Closed Loop Hydraulic Circuit for Maximum Hydraulic Efficiency
- Electronic Speed Control
- Five Year, 1000 Hour Limited Warranty

Models and Ratings

<u>Model</u>	<u>Shaft</u>	<u>Hz</u>	<u>Watts</u>	<u>Voltage</u>	<u>Amps</u>	<u>PF</u>	<u>Phase</u>
20RBAA-3576B	Keyed	60	20,000	120/240	166/83	1.0	1

All 60 Hz models operate at 1800 r/min.

*Onan tested for operation with cooling air inlet temperature up to 120° F (48°C). Ambient is defined as the air temperature measured at the cooling air inlet to the set.

Weight, Size and Sound Level

- Total weight: 679 lb (309 kg); genset 532 lb (241 kg), pump 124 lb (56 kg), reservoir 13 lb (6 kg)
- Genset: Length 44.4 in (1133 mm), Width 19.3 in (490 mm), Height 17.3 in (439 mm)
- Sound Level: 60 Hz, 70 dB(A) at 10 ft (3 m), before installation, full load (estimated)

Standard Features

Hydraulic Components:

- Variable displacement piston pump
- Piston motor drive
- Automatic frequency adjust
- Speed controller - Power Off: Rotor not turning, Power On: Rotor turning
- Hydraulic oil heat exchanger

Generator Housing:

- Stainless steel
- Single side serviceability
- Multiple air inlet locations (4)
- Single side interface for all hook-ups
- Installs without removing housing
- Four-point vibration isolated mounting system
- Brushless alternator

Generator Output:

- 120/240 single phase, 4-lead
- 10-foot power leads in non-metallic conduit
- Power switch control, both mechanical and electrical
- Power off position does not allow genset to spin
- Stable frequency
- Circuit breakers (OEM/distributor supplied)
- Capped voltage regulator
- Factory load tested

Controls and Displays:

- Onan display by FRC with 15 ft harness; displays Hz, volts, amps, oil temperature and hours
- On/off switch for generator power and rotation
- Solid state voltage regulation
- Electronic speed control to maintain generator frequency

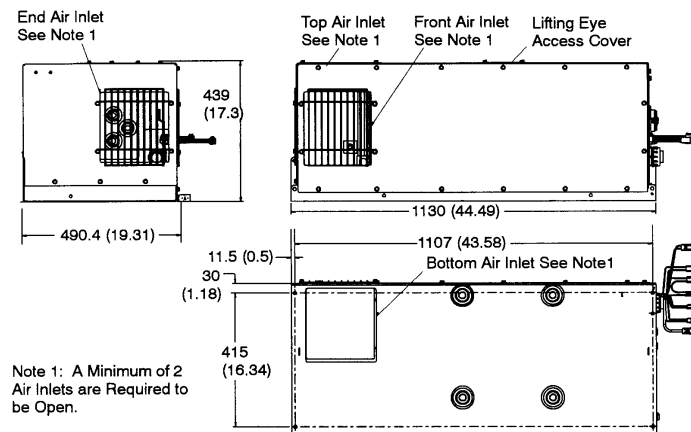
Reservoir:

- 3 gallon hydraulic tank with integral filter
- Filter with element condition indicator gauge, breather, and fill port
- Mounting tabs for universal mounting

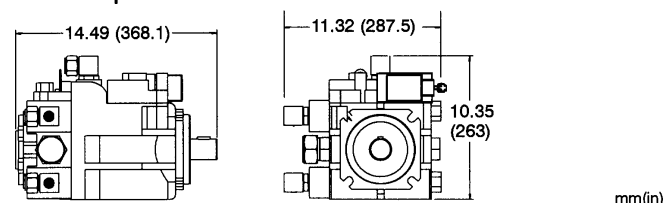
Accessories:

- Side discharge duct kit (part # 541-1012)
- Extension harnesses (see Operation and Installation manual)

Basic Dimensions



90cc Pump



This outline drawing is provided for general reference only and is not intended for design or installation. For more information see Operation and Installation manual or obtain outline drawing 500-3763 and wiring diagram from your Distributor/Dealer.

Alternator Detail

Design: Onan AC, brushless, self-excited revolving field, permanently aligned to hydraulic motor by a splined shaft
Cooling: Direct drive blower wheel
Rotor: Laminated electrical steel assembly press-fitted to shaft, balanced; heavy insulated, class 200 copper wire windings, optimized air gap for improved wave form and motor starting

Stator: Laminated electrical steel assembly, skewed for improved waveform; heavy insulated, class 200 copper wire windings
Bearing: Double-sealed pre-lubricated ball bearing
Exciter: Solid state regulator and bridge rectifier supply field current

GenSet Detail

Voltage Regulation - No Load to Full Load (Stabilized Conditions): +/- 2%
Voltage Variation for Constant Loads: +/- 1.5%

Frequency Regulation - No Load to Full Load (Stabilized Conditions): 60 Hz +/- 0.5 Hz
Frequency Variation for Constant Loads: +/- 0.5 Hz

Hydraulic Detail

Cooling:

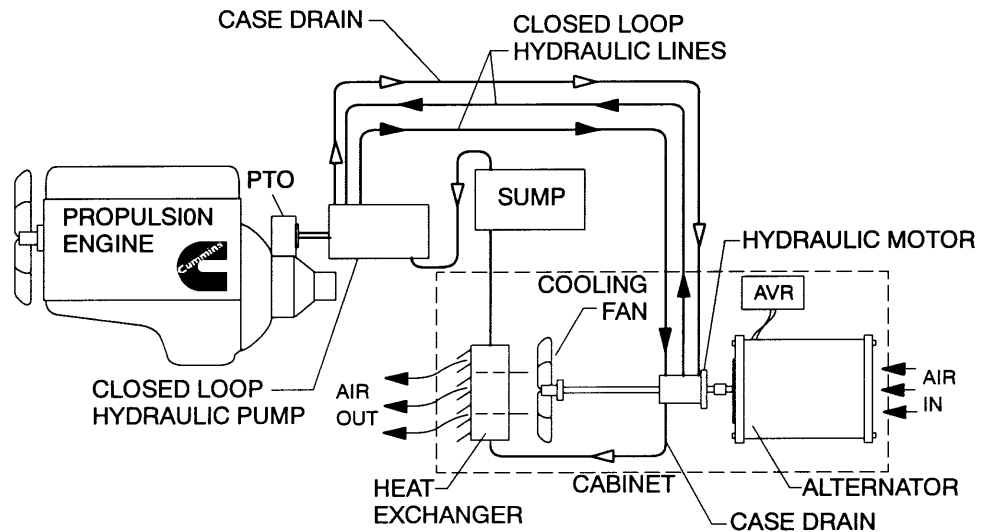
- High efficiency forward inclined blade, plug fan
- Pressurized box with distribution volutes for optimum air velocity across heat exchanger
- Furnace brazed blades, 4 brace rods and epoxy powder coated for best fan durability
- Flow through heat exchanger 5-17 gal/min (pump speed dependent)

Hydraulic Power:

- Pump pressure at full load 3500 psi

- Operating flow and pressure 23 Gal/min, 3500 psi (full load)
- Pump – 90 cc, variable displacement piston pump SAE C flange 1.5" diameter with 3/8" key shaft (no spline shaft option)
- Motor - fixed displacement piston motor
- Required pump speed 1150-3900 r/min maximum
- Requires 43.2 HP from drive engine at full load
- Fluid Dexron III - 6 gallon - total

Hydraulic Operational Schematic



Warranty Policy

The ONAN limited warranty covers virtually everything except routine maintenance for the first five years that you own your generator set, or the first 1,000 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!

Travel Time Repair Allowance: In addition to the 5-year, 1000-hour warranty, a travel time repair allowance of 2.5 hours and mileage cost up to 100 miles included for the first 2 years.

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 - Operation and Installation manual 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: Operation and installation Manual (943-0102), Parts Manual (943-0203), Service Manual (943-0502)

Standards and Testing

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

Tested with commercial loads.

Field Test Program.

This generator set was designed and manufactured in facilities certified to ISO 9001. CSA certified for CSA C22.2 Std 100 and Std 14 for operation up to 40° C only.



Contact your Distributor/Dealer for more information:



Cummins Power Generation
1400 73rd Avenue N.E.
Minneapolis, MN 55432 U.S.A.
phone: 1-800-888-ONAN or 763-574-5000
fax: 763-528-7242
e-mail: feedback@onan.com
WEB: www.onan.com

Onan is a brand of Cummins Power Generation. Cummins Power Generation is a subsidiary of Cummins Inc. Onan is a registered trademark of Cummins Inc.

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.