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A-1555b (B/10)

Residential generator set
RS Air-Cooled Series
RS20A/AC & RS14AF
Model GSBB

Features and benefits
• Very quiet operation
• Internet remote monitoring and email notification
• Automatic load management - The intelligent generator control automatically manages non-essential household loads for maximum utilization of generator power
• Cummins Onan designed alternator and electronic control
• Powerful motor starting - starts and runs a 5 ton A/C¹ under full pre-load
• GFCI “Ready”
• Self-diagnostic capability
• Service and maintenance information displayed on in-home display
• Easy installation with innovative molded polymer installation base - no need for a concrete pad
• Electronic governor for precise frequency control
• Flexible 12 inch fuel line provided with genset
• Generator designed and manufactured in the USA
• U.S. EPA and CARB Emissions Certified
• UL 2200 Listed and CSA Certified generator and transfer switch for your protection
• Quality power output, less than 5% THD
• 5 year, 2000 hour limited warranty

Weight, size and sound level
Weight: 540 lb (245 kg)
Size: Length 53 in (1346 mm), width 43 in (1092 mm), height 34.7 in (880 mm)
Sound: 62 dB(A) at 23 ft (7 m) at normal load²

<table>
<thead>
<tr>
<th>Series</th>
<th>Order model</th>
<th>Part number</th>
<th>Fuel</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Rated amps³</th>
<th>Circuit breaker</th>
<th>Cold weather equipped</th>
<th>Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS20A</td>
<td>20GSBB-6713A</td>
<td>A029T463</td>
<td>Natural gas</td>
<td>120/240</td>
<td>60 Hz</td>
<td>144/72</td>
<td>100 A, 2 pole</td>
<td>No</td>
<td>UL</td>
</tr>
<tr>
<td>RS20A</td>
<td>20GSBB-6713A</td>
<td>A029T463</td>
<td>LP vapor</td>
<td>120/240</td>
<td>60 Hz</td>
<td>162.5/81.25</td>
<td>100 A, 2 pole</td>
<td>No</td>
<td>UL</td>
</tr>
<tr>
<td>RS20A</td>
<td>20GSBB-6714A</td>
<td>A029U509</td>
<td>Natural gas</td>
<td>120/240</td>
<td>60 Hz</td>
<td>144/72</td>
<td>100A, 2 pole</td>
<td>Yes</td>
<td>UL</td>
</tr>
<tr>
<td>RS20A</td>
<td>20GSBB-6714A</td>
<td>A029U509</td>
<td>LP vapor</td>
<td>120/240</td>
<td>60 Hz</td>
<td>162.5/81.25</td>
<td>100A, 2 pole</td>
<td>Yes</td>
<td>UL</td>
</tr>
<tr>
<td>RS20AC</td>
<td>20GSBB-6717A</td>
<td>A030SS33</td>
<td>Natural gas</td>
<td>120/240</td>
<td>60 Hz</td>
<td>140/70</td>
<td>100A, 2 pole</td>
<td>Yes</td>
<td>CSA</td>
</tr>
<tr>
<td>RS20AC</td>
<td>20GSBB-6717A</td>
<td>A030SS33</td>
<td>LP vapor</td>
<td>120/240</td>
<td>60 Hz</td>
<td>154/77</td>
<td>100A, 2 pole</td>
<td>Yes</td>
<td>CSA</td>
</tr>
<tr>
<td>RS14AF</td>
<td>14GSBB-6716A</td>
<td>A029U513</td>
<td>Natural gas</td>
<td>115/230</td>
<td>50 Hz</td>
<td>113/56.5</td>
<td>60A, 2 pole</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>RS14AF</td>
<td>14GSBB-6716A</td>
<td>A029U513</td>
<td>LP vapor</td>
<td>115/230</td>
<td>50 Hz</td>
<td>113/56.5</td>
<td>60A, 2 pole</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

¹ Air-conditioners vary by type, efficiency, operational conditions, etc. Consult with a qualified HVAC specialist or Cummins Onan distributor/dealer for proper sizing.
² Normal load is defined as typical household consumption of 3kW.
³ Derating guidelines: Maximum wattage or maximum current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc. Full rated power available at 60 °F (15.5°C) and sea level. Derate 3.5% for each 1000 ft (304.8 m) above sea level and 3% for each 10 °F (5.5 °C) increase in ambient temperature above 60 °F (15.5 °C). Maximum wattage or maximum current are based upon minimum service voltage in accordance with UL 2200 (Stationary Engine Generator Assemblies) or CSA C22.2 No. 100-04 (Motors and Generators).

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A-1555b (B/10)
Engine

Model: 993 cc, air-cooled v-twin OHV
Compression ratio: 8.3:1
Displacement: 60.6 cu in (993 cc)
Oil sump capacity: 2.43 qt (2.3 L) with filter
Operating speed: 3600 rpm
Fuel supply pressure: NG 5-11 in H2O, LP 7-11 in H2O
- Integrated oil drain valve and extension tube included
- Simple fuel conversion between natural gas and LP
- 20 A battery charger
- Highly reliable solenoid shift starter
- Transistorized magneto ignition
- Automotive-style lubrication system
- Oil cooler
- Spin-on oil filter
- Electronic governor
- Large-capacity air cleaner
- CARB Certified, U.S. EPA Certified

Weather protective sound enclosure
- Thick 11 gauge aluminum enclosure with resilient architectural grade powder coat paint
- Durable polypropylene base eliminates need for concrete pad
- UL Listed, impact resistant, fully colored, automotive grade polypropylene cover with UV stabilizer
- All maintenance points are accessible without the use of tools
- “Under the hood” oil dipstick check and fill
- Electrical stub-up and side knockouts provided on genset for installation flexibility
- Patented, innovative, compact and neighborhood friendly design blends into any residential setting
- Lift-off enclosure for close proximity installations
- No exposed fasteners
- Key lockable
- High intake and exhaust to reduce rain ingestion and snow blockage
- GFCI “Ready” mounting location provided on genset enclosure
- Externally mounted circuit breaker with weatherproof cover

Exhaust muffler
- Large automotive grade corrosion resistant muffler design
- Low noise

Load management
- Automatically turns on/off loads to prevent generator overload
- Easy to set up from in-home display
- Easily connected at the generator

Control system
- Cummins Proprietary electronic control with self diagnostics and generator set protection and safety features included
- Automatically starts and stops generator upon identification of a power outage
- Microprocessor control manages generator set operation, fault detection and service diagnostics
- Illuminated run/off/auto switch
- Convenient access to all connection points
- Fully automatic operation

Internet/email capability

- Sends you or your service technician an email if service or maintenance is required.
- View generator status from the internet.
  Note: Network Specialist required for set-up
- Installation and set-up is required. See Installation Manual for additional details.

In-home display

- Wired in-home LCD display is offered standard on every set.
- Surface mountable at genset (standard) or remotely (installation required).
- Power continually supplied to the display; no need for replaceable batteries.
- Genset can be started/stopped from the display.
- Easily set/adjust genset exercise for day and time, with capability to choose weekly, bi-weekly or monthly.
- Displays maintenance and service reminders.
- Percent load is displayed allowing user to manage load.
- Displays last 30 faults for troubleshooting.
- Displays last 30 events (i.e., day and time of power outage, exercise, etc.).
- Adjust and configure RSS service entrance ATS models.
Average fuel consumption:*  

<table>
<thead>
<tr>
<th>Fuel consumption-</th>
<th>Load:</th>
<th>1/4</th>
<th>1/2</th>
<th>3/4</th>
<th>Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>natural gas</td>
<td>ft³/hr</td>
<td>90</td>
<td>135</td>
<td>175</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>m³/hr</td>
<td>2.5</td>
<td>3.8</td>
<td>5.0</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Kg/hr</td>
<td>2.5</td>
<td>3.4</td>
<td>4.8</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>Btu/hr</td>
<td>90000</td>
<td>135000</td>
<td>175000</td>
<td>240000</td>
</tr>
<tr>
<td>Nominal fuel rating</td>
<td>37 MJ/m³ (1000 Btu/ft³).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fuel consumption-  

<table>
<thead>
<tr>
<th>Load:</th>
<th>1/4</th>
<th>1/2</th>
<th>3/4</th>
<th>Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP vapor</td>
<td>ft³/hr</td>
<td>35</td>
<td>53</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>m³/hr</td>
<td>1.0</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Gal/h:</td>
<td>1.0</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>L/hr</td>
<td>3.6</td>
<td>5.5</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>Kg/hr</td>
<td>2.5</td>
<td>3.8</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>Btu/hr</td>
<td>87500</td>
<td>132500</td>
<td>187500</td>
</tr>
<tr>
<td>Nominal fuel rating</td>
<td>93 MJ/m³ (2500 Btu/ft³).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Approximately 15% lower fuel consumption at 50 Hz

Alternator details  

**Design:** Cummins Onan 2-pole, self-excited revolving field. Permanently aligned to engine by a tapered shaft.

**AC waveform total harmonic distortion:** Less than 5% THD (total harmonic distortion).

**Insulation system and temperature rise:** Class H insulation per NEMA MG-1-1-66.

**Cooling:** Direct-drive, centrifugal blower.

**Rotor:** Laminated electrical steel assembly skewed for improved voltage waveform, heavy insulated copper wire windings.

**Bearing:** Double-sealed pre-lubricated ball bearing.

**DC brushes:** Electrographitic, long life, easily serviced.

Generator set performance  

**Voltage regulation:** ±1.5% no load to full load.

**Frequency regulation:** Isochronous, 0% no load to full load.

**Motor starting kVA (30% voltage dip):** 40

**Operating temperature:**

- 122 °F (50 °C) to 20 °F (-7 °C): Standard Model
- 122 °F (50 °C) to 0 °F (-18 °C): Cold Weather Equipped Model

Additional accessories are available to allow for operation down to -20 °F (-29 °C) or high humidity. See Accessories section for details.

Easy Service & Installation

- **Plug-n-Play Electrical Connections**
- **Air cleaner**
- **Oil Check/Fill**
- **Removable Lid**
- **LP/NG Fuel Connection**
- **Polypropylene Mounting Base**
- **Oil Drain Valve**

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A-1555b (8/10)
Automatic transfer panel configurations

Service entrance installation (USA only) (100/200 A)

Service entrance installation (USA and Canada) (100/200 A)

Dedicated emergency standby service system (100/200 A) (USA and Canada)

Basic dimensions

Note: This outline drawing (A029Z911) is provided for general reference only and is not intended for use in design or installation. For more information, see Operators and Installation manuals or contact your distributor or dealer for assistance.
UL 1008 Listed: RSS100-6868, RSS200-6869 (0500-4824)

CSA/UL RSS100-6634 (0500-4502)

CSA/UL RSS200-6635 (0500-4503)
Options and accessories
- Installation wheel kit (P/N 0541-1624)
- Additional in-home display (P/N 0300-6576)

Climate Accessories:
- Breather heater kit (P/N A030W752)
- Battery heater kit (P/N 0333-0770)
- Alternator dryer kit (P/N A029J885)

<table>
<thead>
<tr>
<th>Climate</th>
<th>Breather Heater</th>
<th>Battery Heater*</th>
<th>Alternator Dryer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 0 ºF</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Below -10 ºF</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>High Humidity</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

* A battery with higher CCA can be used in place of this accessory.

Battery requirement
- 12 V, group 26R, 530 CCA Maintenance Free

Warranty policy

Transfer switch (also sold separately)
- 100 and 200 amp automatic transfer switch NEMA 3R.
- Fully automatic operation with Cummins Onan RSS model automatic transfer switch.
- Reduces installation time with indoor/outdoor flexibility and whole house install.
- Two amp trickle battery charger included
- UL 1008 Listed Service Entrance Rated: RSS100-6868, RSS200-6869
- CSA Approved and UL 1008 Listed: RSS100-6634, RSS200-6635

Plug-n-play installation harnesses
- Generator to ATS harness:
  - 1 ft. length (p/n A029U298)
  - 50 ft. length (p/n A029U302)
  - 100 ft. length (p/n A029U303)
  - 200 ft. length (p/n A029U304)
- Remote display harness:
  - 1 ft. length (p/n A029U306)
  - 50 ft. length (p/n A029U308)
  - 100 ft. length (p/n A029U310)
  - 200 ft. length (p/n A029U311)

After sale support
Largest distributor/dealer support network
Cummins Onan generator sets are supported by the largest and best trained worldwide certified distributor/dealer network in the industry. This network of knowledgeable 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. Plus, 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 distributor/dealer and request the following manual numbers: Operator (A029V089), Installation (A029V089), Parts (A029Y325), Service (A030A239).

To easily locate the nearest certified distributor/dealer for Cummins Onan generators in your area, or for more information, contact us at 1-800-344-0039 or visit www.cumminsonan.com.

Contact your distributor/dealer for more information.

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