Standby Generators Air Cooled 20kW



Gas Engine Generator Sets

Continuous Standby Power Rating:

• EGEN20A (Aluminum) - 20 kW 60Hz

Features:

- True Power[®] Electrical Technology
- Two Line LCD Digital Controller
- Electronic Governor
- External Main Circuit Breaker, System Status & Maintenance Interval LED's and GFCI Duplex Outlet
- · Flexible Fuel Line Connector
- · Composite Mounting Pad
- · Natural Gas or LP Gas Operation
- UL 2200 Listed

Benefits:

- Total commitment to component testing, reliability, environmental, destruction and life, plus testing to applicable CSA, NEMA, EGSA, and other standards.
- True Power[®] Electrical Technology: Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC.
- Test Criteria:
 - Prototype Tested Nema Mg1-22 Evaluation
 - System Torsional Tested
 - Motor Starting Ability
- Solid-state, frequency compensated voltage regulation. This state-of-the-art power maximizing regulation system is standard on all Eaton models. It provides optimized fast response to changing load conditions and maximum motor starting capability by electronically torque-matching the surge loads to the engine.
- Single source service response from the industry's best dealer network provides parts and service know-how for the entire unit.



Effective August 2009

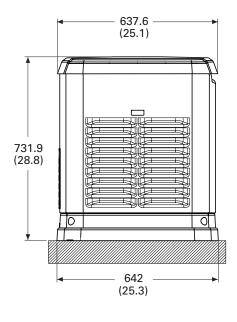
Table 1. Features

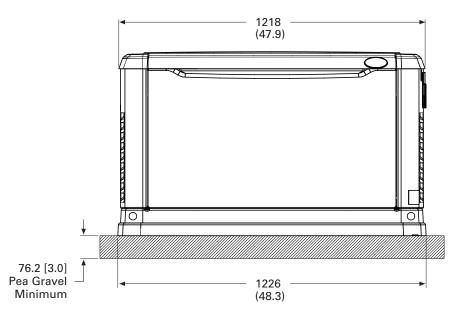
| | Features | Benefits |
|---------------------|--|---|
| Engine | OHVI Design "Spiny-lok" cast iron cylinder walls Electronic ignition/spark advance | Maximizes engine "breathing" for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings help engine run cooler, reducing oil consumption. Because heat is the primary cause of engine wear, the OHVI has a significantly longer life than competitive engines. |
| | Full pressure lubrication system | Rigid construction and added durability provide long engine life. |
| | Low oil pressure shutdown system | These features combine to assure smooth, quick starting every time. |
| | High temperature shutdown | Superior lubrication to all vital bearings means better performance, less maintenance and significantly longer engine life. Now featuring a 2 year/200 hour oil change interval. |
| | | Superior shutdown protection prevents catastrophic engine damage due to low oil. |
| | | Prevents damage due to overheating. |
| Generator | Revolving field Skewed stator | Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator. |
| | Displaced phase excitation | Produces a smooth output waveform for compatibility with electronic equipment. |
| | Automatic voltage regulation | Maximizes motor starting capability. |
| | UL 2200 Listed | Regulates the output voltage to ±2% prevents damaging voltage spikes. |
| | | For your safety |
| Transfer Switch | Sold Separately | |
| Controls | Manual/Auto/Off switch | Selects the operating mode. |
| | Utility voltage sensing | Constantly monitors utility voltage, setpoints 65% dropout, 75% pick-up, of standard voltage. |
| | Utility interrupt delay | Prevents nuisance start-ups of the engine, adjustable 10-30 seconds. |
| | Engine warm-up | Ensures engine is ready to assume the load, setpoint approximately 10 seconds. |
| | Engine cool-down | Allows engine to cool prior to shutdown, setpoint approximately 1 minute. |
| | Seven day exerciser | Operates engine to prevent oil seal drying and damage between power outages. |
| | Timed Trickle Battery charger | Maintains battery charge level to insure starting. |
| | Main Line Circuit Breaker | Protects generator from overload. |
| | Electronic governor | Maintains constant 60 Hz frequency. |
| Unit | Weather protective enclosure Enclosed critical grade muffler | Ensures protection against mother nature. Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability. |
| | Small, compact, attractive | Quiet, critical grade muffler is mounted inside the unit to prevent injuries. |
| | | Makes for an easy, eye appealing installation. |
| Installation System | 1' Flexible Fuel Line Connector | Easy Installation |
| | Composite Mounting Pad | |

Table 2. Specifications

| Section Sec | lable 2. Specifications | | | | |
|--|---|---|--|--|--|
| Rated Maximum Centimum Server Capacity (NG) 120.240 | | | | | |
| Rated Motingme Continues Lead Current 249 Volts | • | 20,000 Watts* | | | |
| Rated Maximum Continuous Load Current 249 Volts | Rated Maximum Continuous Power Capacity (NG) | 18,000 Watts* | | | |
| Table Harmonic Discrete Description | Rated Voltage | 120/240 | | | |
| Nami Live Circui Brooker Place Phase Rated AC Frequency Routed AC Frequency Power Factor Some or good in circuited of the circuited of th | Rated Maximum Continuous Load Current 240 Volts | 83.3 LP/75 NG | | | |
| Phase I Number of Rotor Poles 2 Rated AC Frequery 60½ Power Factor 10 Battery Requirement (not included) 600 p26R, 12 Votts & \$25 Cold crarking Amps Min. Unit Weight 400 p26R, 12 Votts & \$25 Cold crarking Amps Min. Dimensions (I* x W* x H*) 40x 25 x 23 Sound output in dB(A) at 28 ft, with generator operating at normal load 6 Sound output in dB(A) at 28 ft, with generator in Quiet-test** low speed exercises mode 9 Englise DONLY-TWIN Number of Qinders 2 Rated Horsepower 9800c Objectioned 40minum v/ Deat from Siv. Valve Arrangement 50x dead Valve Operation System 50x dead Valve Compression Ratio 51x dead Valve Operating PPM 50x dead Valve Operating PPM 50x dead Valve Operating PPM 50x dead Valve Final Consumption Audit Act 2 Six (April 1 Load Valve) 50x dead Valve Operating PPM 50x dead Valve 50x dead Valve Operating PPM 50x dead Valve 50x dead Valv | Total Harmonic Distortion | Less than 5% | | | |
| Number of Rotor Poles 2 Rated AC Frequency 60H2 Power Factors 1 Stotery Requirement (not included) Goop 26R, 12 Volta & S25 Cold craining Amps Min. Unit Waipit 457 Phunds Sound output in dB(A) at 23 ft, with generator operating at normal load 56 Phunds Sound output in dB(A) at 23 ft, with generator in Quiet-Test™ low speed exercise mode 60 Englise Winter Cylinders 2 Rated Horsepower 360 9.500 pm Opplished Fine I Abusing W Cylinder Block Abusing W Cylinder Block Valve Arrangement 50% 45 to 10 km W Cylinder Block Abusing W Cylinder Block Governor System 50% 45 to 10 km W Cylinder Block 50% 45 to 10 km W Cylinder Block Governor System 50% 45 to 10 km W Cylinder Block 50% 45 to 10 km W Cylinder Block Governor System 10 Cappacity Including Filter 40% 45 to 10 km W Cylinder Block Gold page 10 Including Filter 40 System W Cylinder Block 40 System W Cylinder Block Oli Capacity Including Filter 40 System W Cylinder Block 40 System W Cylinder Block Compression Ratio 4xx fly 11 Load 50 System W Cylin | Main Line Circuit Breaker | 100 Amp | | | |
| Rated AC Frequency 6694 Power Factor 10 cap 2871, 12 Volts 8 252 Cold carwing Amps Min. Dinnessions IL's W'r x H') 451 Founds Dinnessions IL's W'r x H') 452 Founds Sound output in dB(A) xt 21 ft. with generator operating at normal load 65 | Phase | 1 | | | |
| Power Factor 1 Batter Requirement tool included) Group 28R 12 Vals 8 525 Cold-cranking Amps Min. Unit Weight 451 Pounds Dimensions ("x W" x H") 451 Pounds Sound output in dB(A) at 23 ft. with generator operating at normal load 65 Sound output in dB(A) at 23 ft. with generator in Quiet-Test™ love speed exercise mode 60 Engine United Engine UNIV TWIN Number of Optications 2 2 Batted Horsopover 358 03 (300) gram 358 03 (300) gram Displacement 9886c 4 Optinider Block Aburnium w/ Cast fron Six. 4 Valve Arrangement Developed Valve 4 Ignition System Bis 1 5 Governor System Bis 1 5 Compression Ratio Bis 1 4 Objective Including Filter Approx. 3 0 0s. 5 Operating RPM 13 (200) 28 (200) 28 (200) File Clossamping at Load Fall Load 80 (300) 80 (300) 80 (300) Required table preserved 13 (200) 14 (200 | Number of Rotor Poles | 2 | | | |
| Battery Requirement tool included) Unit Weight 45F Pourcls Dimensions (L' x W' x H') A6 x 25 x 23 Sound output in dB(A) at 22 ft. with generator operating at normal load Sound output in dB(A) at 22 ft. with generator in Quiet-Test**Nov speed exercise mode Engine Engine Fryge of Engine Number of Cylinders Rated Horspower Boliphacement Cylinder Block Valve Arangement Govername yet and speed | Rated AC Frequency | 60Hz | | | |
| Unit Weight 451 Pounds Dimension ("x "x" x") " x" " y x" y x" y 68 x 5x x 23 Sound output in dB(A) at 23 ft. with generator in Quiet-Tost™ low speed exercise mode 50 Type of Engine OHVI V-TWIN Number of Cylinders 2 Rated Horsepower 36 80 3,600 rpm Displacement 9990cc Vylinder Block All minimum w/ Dast from Six Vylinder Block Minimum w/ Dast from Six Vylinder Block Solid-state w/ Magneto Governor System Electronic Congression Rati 35 1 Solid-state w/ Magneto Electronic Compression Rati 35 93 3 Solid-state w/ Magneto Electronic Compression Rati 35 1 Solid-state w/ Magneto Solid-state w/ Magneto Compression Rati 35 1 Solid-state w/ Magneto Solid-state w/ Magneto Compression Rati 35 1 Solid-state w/ Magneto Solid-state w/ Magneto Compression Rati 36 10 3 5 1 Solid-state w/ Magneto Solid-state w/ Magneto | Power Factor | 1 | | | |
| Distance of Lamber 1 of Bill Al at 23 ft. with generator operating at normal load 68 Sound output in dBilA) at 23 ft. with generator in Quiet-Test™ low spoed exercise mote programment of Prinders 00 Type of Engine OPEN INTERPRETATION OF THE PRINT OF T | Battery Requirement (not included) | Group 26R, 12 Volts & 525 Cold-cranking Amps Min. | | | |
| Sound output in dB A at 23 ft. with generator in Quiet-Test™ low speed exeroise mode Fingine Fingine Fingine | Unit Weight | 451 Pounds | | | |
| Engine Type of Engine Number of Cylinders Rated Horsepower Spiece Rated Horsepower Spiece Rated Horsepower Spiece Sp | Dimensions (L" x W" x H") | 48 x 25 x 29 | | | |
| Project Pro | Sound output in dB(A) at 23 ft. with generator operating at normal load | 66 | | | |
| Number of Cylinders | Sound output in dB(A) at 23 ft. with generator in Quiet-Test™ low speed exercise mode | 60 | | | |
| Number of Cylinders Sac 8,800 pm Rated Horsepower Sac 8,800 pm Oisplacement Sac 8,800 pm Cylinder Block Aluminum wy Cast Iron Siv. Voyer Arrangement Overhead Valve Solid-state w/ Magneto Governor System Sac 95 pm Electronic Compression Ratio 12 Vdc Compression Ration Sac 95 pm 12 Vdc Starter Display Sac 95 pm 12 Vdc Colspan="2">Colspan="2 | | | | | |
| Number of Cylinders I | Type of Engine | OHVI V-TWIN | | | |
| Displacement 989cc Cylinder Block Aluminum w/ Cast Iron Six. Valve Arrangement Overhead Valve Governor System Celectronic Cowernor System Click Sold state w/ Magneto Compression Ratio 12 Vide Dil Capacity Including Filter Approx. 1.9 Ots. Operating RPM 20,6 /29 Evel Consumption Natural Gas Lix/Iri-1/2 Load / Full Load 20,6 /29 Evel Colspan="2">Evel Co | | 2 | | | |
| Cylinder Block Aluminum w/ Cast Iron Siv. Valve Arrangement Overhead Valve Uppition System Solid-state w/ Magneto Governor System Electronic Compression Ratio 12 Vdc Starter Approx. 1.9 Ots. Operating RPM Approx. 1.9 Ots. Fuel Consumption Popane and Liquid Propane and Liquid Liquid Propane and Liquid Liq | Rated Horsepower | 36 @ 3,600 rpm | | | |
| Valve Arrangement Overhead Valve Ignition System Solid-state w/ Magneto Governor System Electronic Compression Ratio 9.5.1 Starter 12 Vdc Oil Capacity Including Filter Approx. 1.9 Ots. Operating RPM 3,800 Fuel Consumption Natural Gas Liquid Propane thi/Lift (1/2 Load / Full Load Liquid Propane thi/Lift (1/2 Load / Full Load Hill Load Liquid Propane thi/Lift (1/2 Load / Full Load Liquid Propane thi/Lift (1/ | Displacement | 999cc | | | |
| Valve Arrangement Overhead Valve Ignition System Solid-state w/ Magneto Governor System Electronic Compression Ratio 9.5.1 Starter 12 Vdc Oil Capacity Including Filter Approx. 1.9 Ots. Operating RPM 3,800 Fuel Consumption Natural Gas Liquid Propane thi/Lift (1/2 Load / Full Load Liquid Propane thi/Lift (1/2 Load / Full Load Hill Load Liquid Propane thi/Lift (1/2 Load / Full Load Liquid Propane thi/Lift (1/ | Cylinder Block | Aluminum w/ Cast Iron Slv. | | | |
| Solid-state w/ Magneto Cowrror System | Valve Arrangement | Overhead Valve | | | |
| Compression Ratio 9.5.1 | - | Solid-state w/ Magneto | | | |
| Compression Ratio 9.5.1 Starter 12 Vdc Oil Capacity Including Filter Approx. 1.9 Ots. Operating RPM 3,800 Fuel Consumption Natural Gas Liquid Propane v.u.f./hr: 1/2 Load / Full Load H3/hr (gal/hr): 1/2 Load / Full Load H3/hr (| | | | | |
| Starter 12 Vdc Oil Capacity Including Filter Approx. 1.9 Ots. Operating RPM 3,600 Fuel Consumption Natural Gas Liquid Propone 13/hr (gal/hr): 1/2 Load / Full Load Liquid Propone 13/hr (gal/hr): 1/2 Load / Full Load / Fu | Compression Ratio | 9.5:1 | | | |
| Special Consumption Surf, Phr: 1/2 Load / Full Load Surf, Phr: 1/2 L | • | | | | |
| Special Consumption Surf, Phr: 1/2 Load / Full Load Surf, Phr: 1/2 L | Oil Capacity Including Filter | Approx. 1.9 Qts. | | | |
| Fuel Consumption Natural Gas cu.ft./hr: 1/2 Load / Full Load | | | | | |
| 2-Line Plain Text LCD Display Mode Switch -Auto -Puto -Off -Manual/Test (start) Engine Start Sequence Engine Warm-up Engine Cool-Down Engine Cool-Down Starter Lock-out Starter Lock-out Starter Lock-out Starter Sequelator w/Overvoltage Protection Automatic Start on Utility failure. 7 day exerciser Stops unit. Power is removed. Control and charger still operate Start with starter control, unit stays on. If utility fails, transfer to load takes place Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration) Engine Warm-up 10 seconds Engine Cool-Down Starter Lock-out Starter cannot re-engage until 5 sec. after engine has stopped 2.5 Amp Timed Trickle Battery Charger Automatic Voltage Regulator w/Overvoltage Protection Standard Automatic Low Oil Pressure Shutdown Standard Overspeed Shutdown Standard / 72Hz Overcrank Protection Standard Standard Standard | Fuel Consumption Natural Gas cu.ft./hr: 1/2 Load / Full Load | , | | | |
| 2-Line Plain Text LCD Display Mode Switch -Auto -Auto -Off -Manual/Test (start) Engine Start Sequence Engine Warm-up Engine Cool-Down Starter Lock-out Starter Lock-out Starter Lock-out Starter Christer Sequelator w/Overvoltage Protection Automatic Start on Utility failure. 7 day exerciser Stops unit. Power is removed. Control and charger still operate Start with starter control, unit stays on. If utility fails, transfer to load takes place Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration) Engine Warm-up 10 seconds I minute Starter Lock-out Starter cannot re-engage until 5 sec. after engine has stopped 2.5 Amp Timed Trickle Battery Charger Standard Automatic Voltage Regulator w/Overvoltage Protection Standard Overspeed Shutdown Standard Overspeed Shutdown Standard | Required fuel pressure to generator fuel inlet at all load ranges - 5 to 7 inches of water column for | natural gas, 10 to 12 inches of water column for LP gas | | | |
| Mode Switch -Auto -Off -Off -Manual/Test (start) Engine Start Sequence Engine Warm-up Engine Cool-Down Starter Lock-out Starter Lock-out Starter Control and Frickle Battery Charger Automatic Voltage Regulator w/Overvoltage Protection Automatic Voltage Regulator w/Overvoltage Protection Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard | Controls | | | | |
| Automatic Start on Utility failure. 7 day exerciser Stops unit. Power is removed. Control and charger still operate Stops unit. Power is removed. Control and charger still operate Start with starter control, unit stays on. If utility fails, transfer to load takes place Engine Start Sequence Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration) Engine Warm-up 10 seconds Engine Cool-Down 1 minute Starter Lock-out Starter cannot re-engage until 5 sec. after engine has stopped Standard Automatic Voltage Regulator w/Overvoltage Protection Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard Overcrank Protection Standard Standard Standard Standard Standard Standard Standard | 2-Line Plain Text LCD Display | Simple user interface for ease of operation | | | |
| Engine Warm-up 10 seconds Engine Cool-Down 1 minute Starter Lock-out Starter Lock-Out Standard Automatic Voltage Regulator w/Overvoltage Protection Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard Overcrank Protection Standard Safety Fuse Standard Standard Standard Standard Standard Standard Standard Standard | -Auto -Off | Stops unit. Power is removed. Control and charger still operate | | | |
| Engine Cool-Down Starter Lock-out Starter cannot re-engage until 5 sec. after engine has stopped 2.5 Amp Timed Trickle Battery Charger Automatic Voltage Regulator w/Overvoltage Protection Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard Overcrank Protection Standard | Engine Start Sequence | Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration) | | | |
| Starter Lock-out 2.5 Amp Timed Trickle Battery Charger Standard Automatic Voltage Regulator w/Overvoltage Protection Standard Automatic Low Oil Pressure Shutdown Standard Overspeed Shutdown Standard / 72Hz Overcrank Protection Standard Safety Fuse Standard Standard | Engine Warm-up | 10 seconds | | | |
| 2.5 Amp Timed Trickle Battery Charger Automatic Voltage Regulator w/Overvoltage Protection Standard Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard / 72Hz Overcrank Protection Standard Standard Standard Standard | Engine Cool-Down | 1 minute | | | |
| Automatic Voltage Regulator w/Overvoltage Protection Automatic Low Oil Pressure Shutdown Standard Overspeed Shutdown Standard / 72Hz Overcrank Protection Standard Standard Standard | Starter Lock-out | Starter cannot re-engage until 5 sec. after engine has stopped | | | |
| Automatic Low Oil Pressure Shutdown Overspeed Shutdown Standard / 72Hz Overcrank Protection Safety Fuse Standard Standard | 2.5 Amp Timed Trickle Battery Charger | Standard | | | |
| Overspeed Shutdown Standard / 72Hz Overcrank Protection Standard Safety Fuse Standard | Automatic Voltage Regulator w/Overvoltage Protection | Standard | | | |
| Overcrank Protection Standard Safety Fuse Standard | | Standard | | | |
| Overcrank Protection Standard Safety Fuse Standard | Overspeed Shutdown | Standard / 72Hz | | | |
| Safety Fuse Standard | | | | | |
| • | Safety Fuse | | | | |
| An ratings in accordance with popular, rooders and privazi it. Invaximum wattage a current are subject to a limited by such factors as fuel bit content, ambient temperature, artifude, engine | · | | | | |

power & condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level; and also will decrease about 1 percent for each 12° C (10° F) above 15.5° C (60° F).





Left Side View

Front View

Figure 1. Air Cooled Generator 20kW

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Eaton Salesperson for certified drawings. Do not use these dimensions for installation purposes.

Eaton Corporation Electrical Sector

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