

150kW¹ Standby Generator Natural Gas



Briggs & Stratton® The Smart Choice

Durable backup power for businesses and luxury homes. Guard against losses due to power outages with a Briggs & Stratton® Standby Generator.



Parts • Labor • Travel
Limited
Warranty

Standard Features

- UL 2200 Listed
- Rugged seven-gauge steel base and protected by an enclosure made from Galvannealed Steel
- Generators are powered by EPA Certified 1800 RPM industrial grade PSI engine
- Sound attenuated enclosures for reduced noise output
- Marinc0 6A battery charger
- DSE 7310 MKII controller
- High performance, durable alternator
- Industry leading 3 year standard limited warranty, 3 years parts, labor and travel³



Generator Set Rating

Model	Alternator Model	Voltage	Phase ²	Hz	Natural Gas 125°C Standby Rating		Circuit Breaker Amps	Limited Warranty ³
					kW ¹ / kVA	Amps		Parts, Labor, Travel
080020	ECO38-1LN/4	120/240	1	60	150 / 150	625	700	3 Year
080021	ECO38-1SN/4	120/208	3	60	150 / 188	520	600	3 Year
080022	ECO38-1SN/4	120/240	3	60	150 / 188	451	500	3 Year
080023	ECO38-1SN/4	277/480	3	60	150 / 188	225	250	3 Year
080024	ECP34-3L/4	347/600	3	60	150 / 188	180	225	3 Year

¹ This generator is rated in accordance with UL (Underwriters Laboratories) 2200 (stationary engine generator assemblies) and CSA (Canadian Standards Association) standard C22.2 No. 100-14 (motors and generators).

² Single phase units are rated at 1.0 power factor and three phase units are rated 0.8 power factor

³ Warranty details available at www.briggsandstratton.com



Engine Specifications

Engine	
Manufacturer	PSI
Aspiration	Turbocharged Air-Cooled
Model Type	8.8L, Industrial Powertrain 4-Cycle
Speed (RPM)	1800
Cylinder Arrangement	V8
Displacement (ci / L)	535 / 8.8
Bore & Stroke (in / mm)	4.35 x 4.5 / 110.5 x 114.3
Compression Ratio	10.1:1
Governor Type	Electronic
Frequency Regulation Steady State	+/- 0.5%
Frequency Regulation No-load to Full-load	Isochronous
Air Filter Type	Dry
Warranty	3 Years
Lubrication System	
Type	Full Pressure
Oil Capacity (qt / L)	8 / 7.6
Oil Filter (Quantity / Type)	1 / Spin-On
Cooling System	
Heat Rejected to Cooling Water at Rated Load (BTU/min / kcal/sec)	5021 / 21.1
Water Pump Type	Centrifugal

Electrical System	
Ignition System	Individual Ignition Coil
Battery Quantity	1
Battery Voltage (VDC)	12
Battery CCA (A)	925
Battery Charging Alternator	
Ground (Negative/Positive)	Negative
Voltage (VDC)	12
Amperage (A)	70
Starter Motor Voltage (VDC)	12

Exhaust System	
Exhaust Manifold Type	Dry
Exhaust Flow at Rated Load (cfm / m³/min)	1178 / 33.3
Exhaust Temperature at Rated Load (°F / °C)	1350 / 732
Maximum Allowable Back Pressure (in Hg / kPa)	3 / 10.2

Fuel System	
Fuel Type	Natural Gas
Fuel Supply Line Inlet	1-1/2 NPT
Recommended Fuel, Lower Heating Value Minimum (BTU/ft³ / MJ/m³)	904 / 34.3
Fuel Supply Pressure (in H₂O / mbar)	7-11 / 17-27

Fuel Consumption			
	Full Load	1/2 Load	No Load
BTU/hr	1,970,000	1,105,000	290,000
ft³/hr	1,970	1,105	290
m³/hr	55.8	31.3	8.2

Engine Output Deratings	
Rated Temperature (°F / °C)	77 / 25
Rated Altitude	1200 ft (366 m) Above Sea Level
Temperature Derate	1.5% for Each 10°F (5.6°C) Above Rated Temperature
Altitude Derate	2.5% for Each 1000 ft (305 m) Above Rated Altitude

Sound Rating at 7 Meters, Lowest Side	
No Load	77 dB(A)

Air Induction System	
Combustion Air (cfm / m³/min)	364.6 / 10.33

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Additional Standard Features

Sound Enclosure

- Sound level ratings with no load: 77 dB(A)²
- Sound attenuating enclosure uses acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption
- Lockable, stainless steel door latches
- Critical grade silencer
- Steel enclosure standard with hinged doors

Weight & Dimensions

Assembled Weight (lbs / kg)	5380 / 2440
Overall Dimensions (in / mm)	135 x 52 x 86 / 3429 x 1321 x 2184
Packaged Weight (lbs / kg)	5563 / 2523
Packaged Dimensions (in / mm)	144 x 58 x 92 / 3658 x 1473 x 2337

Controller Features

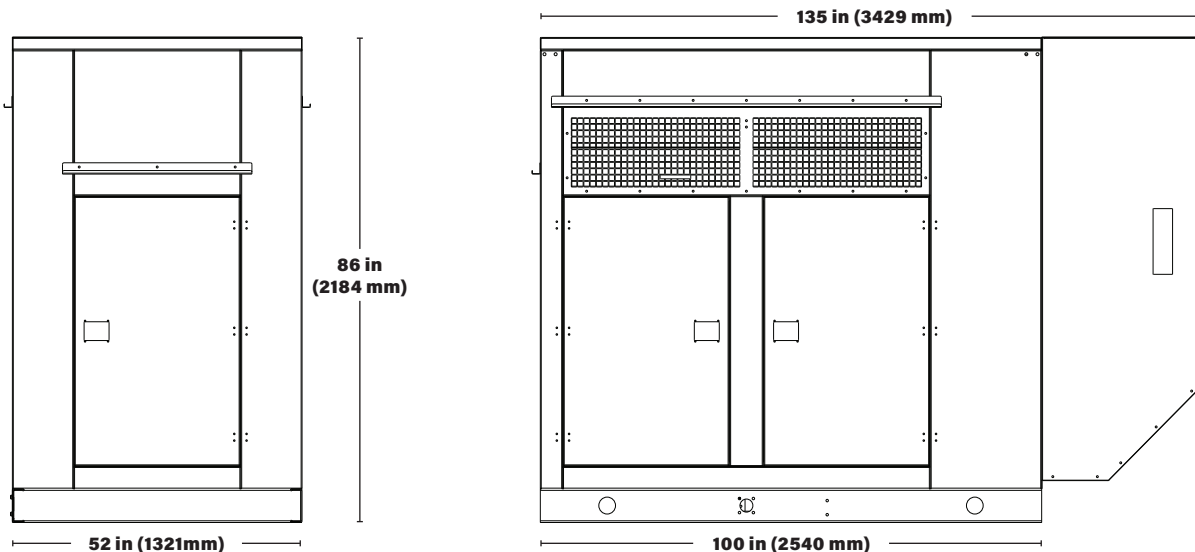
- Heated display option
- True 3 Phase generator sensing
- Power monitoring (kW, kVA, kVAR)
- Remote communication (RS232 & RS485) provides secure and simple off site monitoring. All ports are continuously active
- Configurable inputs/outputs (9/8)
- CANBus speed sensing
- Configurable display languages
- Power save mode
- Integral PLC editor
- Flexible sender inputs
- DSE Configuration Suite PC Software
- Configurable event log (250)
- Load switching, load shedding & dummy load outputs

Available Accessories

6335	Battery Cable Lockout, NFPA 110 Compliant
6350	Engine Communication Cable
6360	Emergency Stop Switch, NFPA 110 Compliant, NEMA 4X
6361	Emergency Stop Switch, NFPA 110 Compliant, With Cover
6428	Controller Communication Cable, USB-A to USB-B
6463	Battery Charger, NFPA 110 Compliant, DSE 9461-02
6464	Communication Interface, DSE 890-01
6465	Remote Annunciator, DSE 2548-01
6466	Remote Display, DSE 2510-32
6468	Remote Annunciator Kit, NFPA 110 Compliant, DSE 2548-01
6472	AVR Communication Cable

Other Features

- Alternator Protection
- Battery Rack and Cables
- Electronic, Isochronous Governor
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature³
- Galvanneal Enclosure



¹This generator is rated in accordance with UL (Underwriters Laboratories) 2200 (stationary engine generator assemblies) and CSA (Canadian Standards Association) standard C22.2 No. 100-14 (motor and generators).

²Sound measured at 7M. Sound levels at various points around generator may be higher depending on installation parameters.

³The installation manual contains specific instructions related to generator placement in addition to NFPA 37, including the requirement that carbon monoxide detectors be installed and maintained in your business and home.



Alternator Specifications

	1 Phase	3 Phase	3 Phase	3 Phase	3 Phase
Model	080020	080021	080022	080023	080024
Alternator Model	ECO38-1LN/4	ECO38-1SN/4	ECO38-1SN/4	ECO38-1SN/4	ECP34-3L4
Manufacturer	Mecc Alte	Mecc Alte	Mecc Alte	Mecc Alte	Mecc Alte
Type	Brushless, 4-Lead	Brushless, 12-Lead	Brushless, 12-Lead	Brushless, 12-Lead	Brushless, 12-Lead
Frequency (Hz)	60	60	60	60	60
Phase	1	3	3	3	3
Alternator Configuration	-	Wye	Delta	Wye	Wye
Exciter Type	Auxiliary Winding	Auxiliary Winding	Auxiliary Winding	Auxiliary Winding	Auxiliary Winding
Number of Poles	4	4	4	4	4
Voltage Regulator	Digital, 1-phase sensing	Digital, 1-phase sensing	Digital, 1-phase sensing	Digital, 1-phase sensing	Digital, 1-phase sensing
Insulation Rating	Class H	Class H	Class H	Class H	Class H
Designed Temperature Rise Limit	125°C	125°C	125°C	125°C	125°C
Bearing (Quantity / Type)	1 / Sealed	1 / Sealed	1 / Sealed	1 / Sealed	1 / Sealed
Coupling	Flexible Disk	Flexible Disk	Flexible Disk	Flexible Disk	Flexible Disk
Amortisseur Windings	Full	Full	Full	Full	Full
Voltage Regulation, NL to FL	+/- 1.0%	+/- 1.0%	+/- 1.0%	+/- 1.0%	+/- 1.0%
One Step Load Acceptance	100% of Rating	100% of Rating	100% of Rating	100% of Rating	100% of Rating
Sustained Short-Circuit Current	300% of rated current for 10 seconds	300% of rated current for 10 seconds	300% of rated current for 10 seconds	300% of rated current for 10 seconds	300% of rated current for 10 seconds
Total Harmonic Distortion (THD), NL to FL	< 3.5	< 3.5	< 3.5	< 3.5	< 3.0

- Windings are insulated using the latest vacuum pressure impregnation technologies
- 2/3rds winding pitch to eliminate triplen harmonics with the voltage waveform
- Fully programmable digital AVR with alarm memory
- Manufactured according to the following standards: UL1004, NEMA MG1, IEC 60034-1

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Briggs & Stratton has a policy of continuous product improvement and reserves the right to modify its specifications at any time and without prior notice.

Not for Prime Power or use where standby systems are legally required, for serious life safety or health hazards, or where lack of power hampers rescue of fire-fighting operations.

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