

Exclusively from your Caterpillar® dealer



STANDBY 17.5-25 kW 60 Hz

| Model | Standby — kW (kVA) | |
|-----------|--------------------|-------------|
| | LP | Natural |
| G20UH3 | 20 (25) | 20 (25) |
| G25UH3 | 25 (31.3) | 25 (31.3) |
| G17.5UH3S | 17.5 (17.5) | 17.5 (17.5) |
| G25UH3S | 25 (25) | 25 (25) |

FEATURES

GENERATOR SET

- Complete system designed and built at ISO 9001 certified facilities
- Factory tested to design specifications at full load conditions

ENGINE

- Governor, Woodward electronic
- Electrical system, 12 VDC
- Cartridge type filters
- Natural gas fuel system, LP gas options available
- Gas shutoff valve, solenoid operated
- Gas pressure regulator
- Low oil pressure shutdown

GENERATOR

- Insulation system, class H
- Drip proof generator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, IEC60034-1, EN61000-6, NEMA MG-1.33, UTE51100

AUTOMATIC VOLTAGE REGULATOR

- Voltage within $\pm 0.5\%$ 3 Phase and 1.0% Single Phase at steady state from no load to full load
- Provides fast recovery from transient load changes

COOLING SYSTEM

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 110° F (43° C)
- High coolant temperature shutdown
- Low coolant level shutdown
- Low coolant temperature alarm

MOUNTING ARRANGEMENT

- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Battery, rack, and cables
- Coolant and lube oil drains piped to edge of base
- Complete OSHA guarding

- Stub-up pipe ready for connection to silencer pipework
- Weather protective enclosures are available
- Fuel line terminated at base with NPT connections

CIRCUIT BREAKER

- 3-pole with solid neutral, UL/CSA listed
- NEMA 1 steel enclosure, vibration isolated
- Electrical stub-up area directly below circuit breaker

CONTROL SYSTEM

- 2001K Autostart control panel
- Vibration isolated NEMA 1 enclosure with hinged access door
- Engine and generator instrumentation
- Volts adjust potentiometer
- Safety shutdown and alarm indicators
- Audible alarm for all faults
- Volt-free contact for common alarm
- AC/DC wiring with multi-pin connectors for system flexibility

EQUIPMENT FINISH

- All electroplated hardware
- Anticorrosive protection prior to painting
- High gloss polyurethane paint for durability and scuff resistance

QUALITY STANDARDS

- BS4999, BS5000, BS5514, IEC60034, EN61000-6, NEMA MG1-33, ISO8528, NFPA 110 (with optional equipment)

DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

WARRANTY

- All equipment carries full manufacturer's warranty

LEHX9523-08 (06-05)

Materials and specifications are subject to change without notice.

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OPTIONAL EQUIPMENT*

ENCLOSURE

- Weatherproof enclosure (includes internal silencer system)
- Sound attenuated enclosure (includes internal silencer system)

SILENCER SYSTEM — OPEN UNIT

- Level 1 silencer
- Level 2 silencer
- Level 3 silencer
- Mounting kit
- Through-wall installation kit

ENGINE

- Battery heater
- Lube oil sump heater, 110/120V

SKIDBASE ACCESSORIES

- Seismic vibration isolators (Zone 4)

GENERATOR

- Anti-condensation heater

COOLING SYSTEM

- Coolant heater, 110/120V
- Radiator transition flange

CONTROL SYSTEM

- Circuit breaker auxiliary contacts, volt free
- Circuit breaker shunt trip (100 amp and above)
- Static battery charger
- UL listed static battery chargers

FUEL SYSTEM

- LP gas (vapor)
- LP gas (liquid)

MISCELLANEOUS ACCESSORIES

- Toolkit
- Additional operator's manual pack
- CSA certification
- French or Spanish Language labels

EXTENDED SERVICE CONTRACTS

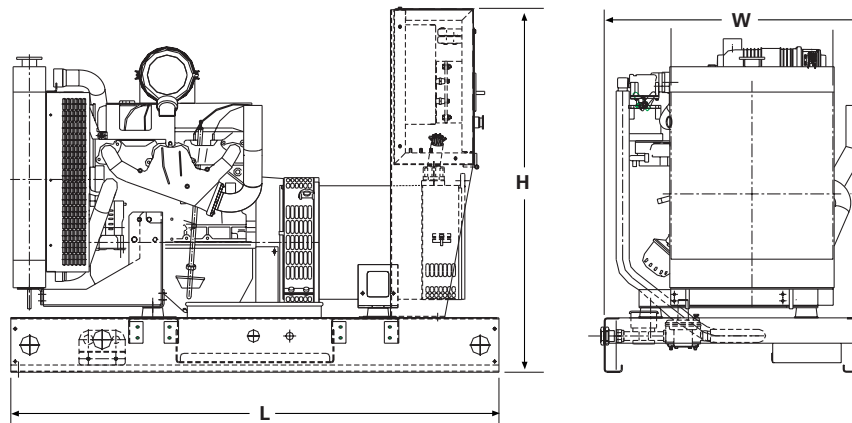
- Extended Service Coverage available

TESTING

- Special factory test available

*Some options may not be available on all models. Not all options are listed.

GENERATOR SET DIMENSIONS AND WEIGHTS



| Model | Length in (mm) | Width in (mm) | Height in (mm) | Weight lbs (kg)** |
|------------------|----------------|---------------|----------------|-------------------|
| G20UH3 | 53.1 (1348) | 28.0 (710) | 39.5 (1004) | 849 (385) |
| G25UH3 | 53.1 (1348) | 28.0 (710) | 39.5 (1004) | 893 (405) |
| G17.5UH3S | 53.1 (1348) | 28.0 (710) | 39.5 (1004) | 849 (385) |
| G25UH3S | 53.1 (1348) | 28.0 (710) | 39.5 (1004) | 893 (405) |

NOTE: General configuration not to be used for installation. See specific dimensional drawings for detail.

**Includes oil and coolant

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SPECIFICATIONS



GENERATOR

Voltage Regulation... $\pm 0.5\%$ 3 PH and $\pm 1.0\%$ Single PH
 at steady state from no load to full load
 Frequency... $\pm 0.25\%$ for constant load,
 no load to full load
 Waveform Distortion... THD less than 4%,
 Radio Interference... EN61000-6
 Telephone Influence Factor... TIF <50
 per NEMA MG 1-32.11
 Telephone Harmonic Factor... THF <2%
 Stator... 2/3 pitch
 Type... Brushless, self excited, self-regulated,
 drip proof, 2-pole, sealed bearings,
 direct coupled by flexible disk
 Insulation... Class H per NEMA MG1-1.66
 Temperature Rise... Within Class H limits
 Overspeed Capability... 125%
 Available Voltages... 1-Phase — 240/120,
 220/110
 3-Phase — 480/277, 240/120,
 208/120
 Deration... Please consult factory
 for available outputs
 Ratings... At 77° F (25° C), 500 ft. (152.4 m),
 60% humidity, 1.0 pf (1-Phase),
 0.8 pf (3-Phase)



ENGINE

Manufacturer... HM Ltd.
 Model... 4ZB1
 Type... 4-Cycle
 Aspiration... Natural
 Cylinder Configuration... In-line 4
 Displacement — cu in (L)... 111 (1.82)
 Bore — in (mm)... 3.30 (84.0)
 Stroke — in (mm)... 3.23 (82.0)
 Compression Ratio... 8.5:1
 Governor
 Type... Electronic
 Class... A1
 Piston Speed — ft/sec (m/sec)... 32.2 (9.84)
 Air Cleaner Type... Dry, light duty and disposable

LP Gas

Engine Speed — rpm... 3600
 Max Power at Rated rpm — hp (kW)
 Standby... 48 (35.9)
 BMEP — psi (kPa)
 Standby... 96 (658)

Natural Gas

Engine Speed — rpm... 3600
 Max Power at Rated rpm — hp (kW)
 Standby... 43.7 (32.6)
 BMEP — psi (kPa)
 Standby... 87 (600)



CONTROL PANEL

NEMA 1 steel enclosure with hinged access door
 Vibration isolated mounted Autostart control panel
 Single location customer connector point
 Electrical stub-up area directly below control panel

RATING DEFINITIONS

Standby — Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator is peak rated (as defined in ISO8528-3).

Consult your Olympian representative for more information.

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G20UH3 (3-Phase)

Materials and specifications are subject to change without notice.

| Generator Set Technical Data — 3600 rpm/60 Hz | | LP Gas | Natural Gas |
|---|---|---|---|
| | | Standby | Standby |
| Power Rating | kW (kVA) | 20.0 (25.0) | 20.0 (25.0) |
| Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF- 4 Total Oil Capacity Oil Pan | U.S. gal (L) U.S. gal (L) | 1.2 (4.5) 1.1 (4.0) | 1.2 (4.5) 1.1 (4.0) |
| Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load | Cfh (m³/hr) Cfh (m³/hr) Cfh (m³/hr) | 133 (3.8) 103 (2.9) 74 (2.1) | 367 (10.4) 285 (8.1) 204 (5.8) |
| Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating | Amps | 45 | 45 |
| Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load | U.S. gal (L) Ft H ₂ O (m H ₂ O) U.S. gal/min (L/min) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 7.2 (4) 1760 (31.0) 887 (15.6) 3.8 (2.8) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 7.2 (4) 1760 (31.0) 887 (15.6) 3.8 (2.8) |
| Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction | Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) | 88.8 (2.5) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) | 84.3 (2.4) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) |
| Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust | In Hg (kPa) Cfm (m³/min) °F (°C) | 5.1 (17.3) 286 (8.1) 1191 (644) | 5.1 (17.3) 288 (8.2) 1202 (650) |
| Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m) | dB(A) | 100 | 100 |

| Generator Technical Data | 277/480V | | 120/240V 120/208V | |
|---|--|-----------------|--|---------------|
| Motor Starting Capability: (kVA) Self Excited | 42 | | 32 | |
| Full Load Efficiencies: Standby | 84.0 | | 83.4 | |
| Reactances (per unit): X_d X'_d Reactances shown are applicable to the LPG standby rating X''_d X_q X''_q X_2 X_0 | 3.71 0.12 0.058 1.86 0.087 0.072 0.004 | | 4.94 0.15 0.077 2.47 0.115 0.095 0.006 | |
| Time Constants: | t'_d 40 ms | t''_d 4 ms | t'_{do} 1221 ms | t_a 6 ms |

* dB(A) levels are for guidance only

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G25UH3 (3-Phase)

Materials and specifications are subject to change without notice.

| Generator Set Technical Data — 3600 rpm/60 Hz | | LP Gas | Natural Gas |
|---|---|--|--|
| | | Standby | Standby |
| Power Rating | kW (kVA) | 25.0 (31.3) | 25.0 (31.3) |
| Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF-4 Total Oil Capacity Oil Pan | U.S. gal (L) U.S. gal (L) | 1.2 (4.5) 1.1 (4.0) | 1.2 (4.5) 1.1 (4.0) |
| Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load | Cfh (m³/hr) Cfh (m³/hr) Cfh (m³/hr) | 162 (4.6) 125 (3.6) 89 (2.5) | 447 (12.7) 347 (9.8) 245 (6.9) |
| Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating | Amps | 45 | 45 |
| Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load | U.S. gal (L) Ft H ₂ O (m H ₂ O) U.S. gal/min (L/min) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 8.1 (4.5) 2153 (37.9) 1085 (19.1) 3.8 (2.8) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 8.1 (4.5) 2153 (37.9) 1085 (19.1) 3.8 (2.8) |
| Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction | Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) | 113 (3.2) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) | 106 (3.0) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) |
| Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust | In Hg (kPa) Cfm (m³/min) °F (°C) | 5.1 (17.3) 367 (10.4) 1234 (668) | 5.1 (17.3) 367 (10.4) 1247 (675) |
| Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m) | dB(A) | 100 | 100 |

| Generator Technical Data | 277/480V | | 120/240V 120/208V | |
|---|--|--------------------------|--|------------------------|
| | Motor Starting Capability: (kVA) Self Excited | 70 | | 52 |
| Full Load Efficiencies: Standby | 87.0 | | 86.2 | |
| Reactances (per unit): X _d X' _d X'' _d Reactances shown are applicable to the LPG standby rating X _d X'' _q X ₂ X ₀ | 3.28 0.08 0.042 1.63 0.062 0.052 0.004 | | 4.36 0.11 0.056 2.18 0.082 0.069 0.005 | |
| Time Constants: | t' _d 40 ms | t'' _d 4 ms | t' _{do} 1477 ms | t _a 6 ms |

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G17.5UH3S (1-Phase)

Materials and specifications are subject to change without notice.

| Generator Set Technical Data — 3600 rpm/60 Hz | | LP Gas | Natural Gas |
|---|--|--------------|--------------|
| | | Standby | Standby |
| Power Rating (at 240V) | kW (kVA) | 17.5 (17.5) | 17.5 (17.5) |
| Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF-4 Total Oil Capacity Oil Pan | U.S. gal (L) | 1.2 (4.5) | 1.2 (4.5) |
| | U.S. gal (L) | 1.1 (4.0) | 1.1 (4.0) |
| Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load | Cfh (m³/hr) | 118 (3.3) | 326 (9.2) |
| | Cfh (m³/hr) | 92 (2.6) | 255 (7.2) |
| | Cfh (m³/hr) | 66 (1.9) | 184 (5.2) |
| Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating | Amps | 45 | 45 |
| | | | |
| Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load | U.S. gal (L) | 1.6 (6.1) | 1.6 (6.1) |
| | Ft H ₂ O (m H ₂ O) | 31.5 (9.6) | 31.5 (9.6) |
| | U.S. gal/min (L/min) | 23.8 (90) | 23.8 (90) |
| | °F (°C) | 169 (76) | 169 (76) |
| | °F (°C) | 7.2 (4) | 7.2 (4) |
| | Btu/min (kW) | 1565 (27.5) | 1565 (27.5) |
| | Btu/min (kW) | 788 (13.9) | 788 (13.9) |
| | Hp (kW) | 3.8 (2.8) | 3.8 (2.8) |
| Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction | Cfm (m³/min) | 778 (2.2) | 73.7 (2.1) |
| | In H ₂ O (kPa) | 5.9 (1.5) | 5.9 (1.5) |
| | Cfm (m³/min) | 4386 (124.2) | 4386 (124.2) |
| | Cfm (m³/min) | 551 (15.6) | 551 (15.6) |
| | In H ₂ O (kPa) | 1.0 (0.247) | 1.0 (0.247) |
| | Cfm (m³/min) | 4237 (120) | 4237 (120) |
| Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust | In Hg (kPa) | 5.1 (17.3) | 5.1 (17.3) |
| | Cfm (m³/min) | 367 (7.0) | 367 (7.0) |
| | °F (°C) | 1171 (633) | 1180 (638) |
| Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m) | dB(A) | 100 | 100 |

| Generator Technical Data | 120/240V | 110/220V | |
|--|--------------------------|--------------------------|----------------------------|
| Motor Starting Capability: (kVA) Self Excited | 22 | 18 | |
| Full Load Efficiencies: Standby | 82.6 | 81.1 | |
| Reactances (per unit): Reactances shown are applicable to the LPG standby rating | X _d | 3.35 | 3.99 |
| | X' _d | 0.22 | 0.26 |
| | X'' _d | 0.109 | 0.130 |
| | X _q | 1.68 | 2.00 |
| | X'' _q | 0.157 | 0.187 |
| Time Constants: | t' _d 40 ms | t'' _d 5 ms | t' _{do} 615 ms |
| | | | t _a 10 ms |

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G25UH3S (1-Phase)

Materials and specifications are subject to change without notice.

| Generator Set Technical Data — 3600 rpm/60 Hz | | LP Gas | Natural Gas |
|---|---|--|--|
| | | Standby | Standby |
| Power Rating (at 240V) | kW (kVA) | 25.0 (25.0) | 25.0 (25.0) |
| Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF-4 Total Oil Capacity Oil Pan | U.S. gal (L) U.S. gal (L) | 1.2 (4.5) 1.1 (4.0) | 1.2 (4.5) 1.1 (4.0) |
| Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load | Cfh (m³/hr) Cfh (m³/hr) Cfh (m³/hr) | 162 (4.6) 125 (3.6) 89 (2.5) | 447 (12.7) 347 (9.8) 245 (6.9) |
| Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating | Amps | 45 | 45 |
| Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load | U.S. gal (L) Ft H ₂ O (m H ₂ O) U.S. gal/min (L/min) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 8.1 (4.5) 2153 (37.9) 1085 (19.1) 3.8 (2.8) | 1.6 (6.1) 31.5 (9.6) 23.8 (90) 169 (76) 8.1 (4.5) 2153 (37.9) 1085 (19.1) 3.8 (2.8) |
| Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction | Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) | 113 (3.2) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) | 106 (3.0) 5.9 (1.5) 4386 (124.2) 551 (15.6) 1.0 (0.247) 4237 (120) |
| Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust | In Hg (kPa) Cfm (m³/min) °F (°C) | 5.1 (17.3) 367 (10.4) 1234 (668) | 5.1 (17.3) 370 (10.5) 1247 (675) |
| Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m) | dB(A) | 100 | 100 |

| Generator Technical Data | 120/240V | 110/220V | | |
|--|--|--|----------------------------|-------------------------|
| Motor Starting Capability: (kVA) Self Excited | 35 | 31 | | |
| Full Load Efficiencies: Standby | 85.6 | 84.2 | | |
| Reactances (per unit): X _d X' _d X'' _d X _q X'' _q Reactances shown are applicable to the standby rating. | 3.33 0.17 0.083 1.67 0.130 | 3.96 0.20 0.099 1.99 0.155 | | |
| Time Constants: | t' _d 40 ms | t'' _d 5 ms | t' _{do} 775 ms | t _a 10 ms |

* dB(A) levels are for guidance only