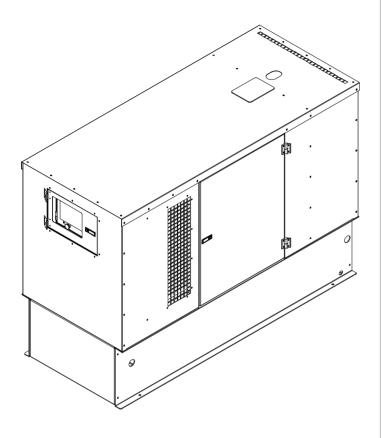


Model: A37KBS Diesel Generator Set



FEATURES

- Armstrong provides one-source responsibility for the generator system and its accessories.
- All units and components are factory tested during prototype and manufacturing stages assuring long product life.
- Generator set accepts one-step 100% of full load per NFPA 110.
- A one-year limited warranty covers all systems and components. Extended warranties are available.
- Rugged 4 cycle heavy-duty diesel engine, with swirl intake ports for a low fuel consumption and excellent transient response.

Generator features:

- Unique Volts per Hertz compensated electronic AVR excitation system delivers reliable voltage response for in rush loads.
- Brushless, rotating-field generator has low reactance, 2/3 pitch, class H insulation, minimizes voltage distortion when powering non-linear loads.

More features:

- Controllers are available to meet your most demanding applications.
- In the event of low oil pressure or high coolant temperature the self-protecting system will automatically stop the engine.
- Aluminum Enclosure Sound Attenuated
- Integrated fuel Tank

GENERATOR SET RATINGS

| Model | Volt Code | Voltage | Winding Connection | Phase | Power Factor | Hz | Amps Standby | Standby kW / kVA | Prime kW / kVA |
|--------|-----------|-----------|--------------------|-------|--------------|----|--------------|---------------------|-------------------|
| A37KBS | 61 | 480 / 277 | 12 - HI WYE | 3 | 0.8 | 60 | 45 | 30 / 37.5 | 27 / 34 |
| A37KBS | 63 | 440 / 254 | 12 - HI WYE | 3 | 0.8 | 60 | 49 | 30 / 37.5 | 27 / 34 |
| A37KBS | 64 | 240 / 139 | 12 – HI DELTA | 3 | 0.8 | 60 | 90 | 30 / 37.5 | 27 / 34 |
| A37KBS | 65 | 220 / 127 | 12 – LOW WYE | 3 | 0.8 | 60 | 99 | 30 / 37.5 | 27 / 34 |
| A37KBS | 66 | 208 / 120 | 12 – LOW WYE | 3 | 0.8 | 60 | 104 | 30 / 37.5 | 27 / 34 |
| A37KBS | 67 | 240 / 120 | 12 – 2 DELTA | 1 | 1.0 | 60 | 125 | 30 / 30 | 27 / 27 |
| A37KBS | 51 | 415 / 240 | 12 – HI WYE | 3 | 0.8 | 50 | 43 | 25 / 31 | 22.5 / 28 |
| A37KBS | 53 | 380 / 220 | 12 – HI WYE | 3 | 0.8 | 50 | 48 | 25 / 31 | 22.5 / 28 |
| A37KBS | 55 | 220 / 127 | 12 – LOW WYE | 3 | 0.8 | 50 | 82 | 25 / 31 | 22.5 / 28 |
| A37KBS | 57 | 220 / 110 | 12 – 2 DELTA | 1 | 1.0 | 50 | 114 | 25 /25 | 22.5/22.5 |

Stand-By ratings are continuous electrical service during the interruption of normal power. No overload capacity is specified at these ratings. Prime ratings available with variable loads are continuous, 10% overload capacity for one hour in twelve hours periods. Both ratings per BS 5514, DIN 6271, ISO-3046

ALTERNATOR SPECIFICATIONS

| Туре | Four pole, revolving field |
|-------------------------------------|--------------------------------|
| Rotor Insulation | Class H |
| 7Temperature Rise | 150°C Standby |
| Material | Epoxy resin |
| Line-To-Line Harmonic Factor (Max) | 5% |
| Telephone Interference Factor (Tif) | 1% |
| Voltage Regulator | Solid State |
| Cooling | Self-ventilated and drip proof |
| Bearing | 1 each, pre-lubed |
| Coupling | Direct, Flexible Disc |
| Load Capacity (Standby) | 100% |
| Overload Capacity (Prime) | 110% |
| Voltage Regulation | |
| No Load To Full Load | ±1 % |
| One Step Load Acceptance | |
| Per NFPA 110 | 100% |

- Four pole, revolving field, direct coupled to engine flywheel, provides excellent alignment.
- Insulation is of class H, ready to be used on harsh environments where sea spray, sand and chemical corrosion are existing factors.
- Voltage regulator provides Volts/Hertz compensation to improve the motor starting capabilities, therefore support the engine handling transient loads.
- Dynamically balanced rotor, with damper winding, help dissipate transient voltage interference during load variations.
- The windings have a 2/3 pitch in order to reduce the harmonic content of voltage.
- Robust mechanical structure permits easy access to connections.

ENGINE SPECIFICATIONS

| Manufacturer | Kubota |
|------------------------------|----------------------------------|
| Model | V3300-BG |
| Bore | 3.86in. (98.0mm) |
| Stroke | 4.33in. (110.0mm) |
| Number Of Cylinders | 4 |
| Piston Displacement | 202.48 in. ³ (3.318L) |
| Compression Ratio | 23.0:1 |
| Combustion System | IDI |
| Engine Type | In-Line – 4 Cycle |
| Aspiration | Natural |
| Engine Crankcase Vent System | Closed |
| Cylinder | Borable |
| Crankshaft Material | Forged Steel |
| Governor, Make | Mechanical |
| Frequency Regulation, | |
| No Load To Full Load | 5 % |
| Air Cleaner | Dry Element |

- Robust, compact, heavy duty Kubota diesel engine, for reliable endurance.
- Many various accessories available along with power take-off points.
- Indirect fuel injection system with Kubota E-TVCS Three Vortex Combustion System, reduces emissions and improves fuel consumption.
- □ High in Output Low in fuel Consumption.
- High capacity governor and large size flywheel, makes Kubota engines control the speed regulation within 5%.
- □ Super Glow Systems, is standard equipment to help start the engine in cold temperatures, at -4°F (-20°c), the engine will start with only 10 seconds of preheating time.

Powered By:



STANDARD EQUIPMENT

ENGINE

- Air Cleaner
- Fuel Pump
- Fuel Filter
- Oil Pump
- Full Flow Oil Filter
- Jacket Water Pump
- Thermostat and Housing
- Exhaust Manifold Dry
- Oil Cooler
- Blower Fan & Fan Drive
- Radiator Unit Mounted
- Electric Starting Motor 12v
- Housing & Flywheel
- Charging Alternator 12v

- Battery Kit & Battery Rack GENERATOR
- Synchronous, Brush-less
- Four Pole
- Single Bearing
- Direct Coupled With Flex
- Class H Insulation

CONTROL PANEL

- Digital Control Panel
- Auto Start Module
- Electric Hour Meter
- Stop-Manual-Auto Pushbuttons
- Standard Engine Control

Monitoring

- Automatic Shutdowns
- * High Water Temperature
- * Low Oil Pressure
- *Protective 12vdc Circuit Breaker

-Display For:

- * Water Temperature
- * Oil Pressure
- * Overcrank
- * Underspeed
- * Overspeed
- * Battery Charging

GENERAL

- Critical Muffler
- Flexible Connector
- Rain Cap
- Aluminum Enclosure-White
- Lockable & Removable Doors
- Sound Attenuated
- Mainline Circuit Breaker
- Oil Drainage kit
- Integrated Fuel tank 150 gal
- Battery Charger 5 amp
- In Frame Lifting Points

INSTALLATION AND APPLICATION DATA

| | | Units | Type of Operation and Application | | | | |
|-------------|----------------------------------|--------------------------------------------|-----------------------------------|--------------|-------------|-------------|--|
| | Item | | 60 Hz | | 50 Hz | | |
| | | | Prime | Standby | Prime | Standby | |
| Engine | Rated Speed | rpm | 1800 | | 1500 | | |
| | Gross Engine Output | bhp (kWm) | 43.9 (32.7) | 48.1 (35.88) | 36.8 (27.5) | 43.9 (32.7) | |
| | ВМЕР | psi (kPa) | 95.4 (657) | 104.5 (720) | 95.9 (661) | 114.4 (788) | |
| | Mean Piston Speed | Ft/s (m/s) | 21.56 (0.55) | | 17.9 (0.46) | | |
| | Ambient Air Temperature | °F (°C) | 122 (50) | | | | |
| | Engine Heat Reject to Coolant | BTU/min (kW) | 1749 (30.7) | 1927 (33.8) | 1466 (25.7) | 1758 (30.9) | |
| | Pusher Fan Air Flow | Cfm (m3) | 4750 (134) | | 3870 (109) | | |
| Cooling | Coolant Flow | gal/min (L/min) | 21 (80) | | 15.8 | 15.8 (60) | |
| System | Coolant Capacity | qt (L) | 7.7 (8.5) | | | | |
| | Thermostat Start to Open | °F (°C) | 170 (76.5) | | | | |
| | Thermostat Fully Open | °F (°C) | 194 (90) | | | | |
| | Blower Fan Diameter | in. (mm) | 18 (457.2) | | | | |
| | Max. Transfer Pump Suction | ft (m) | | 3 (0 | 0.9) | | |
| | Fuel Type | | Diesel #2 | | | | |
| Fuel | Fuel Consumption @ 25% Power | gal/hr (L/hr) | 0.62 (2.35) | 0.68 (2.58) | 0.52 (1.96) | 0.62 (2.34) | |
| System | Fuel Consumption @ 50% Power | gal/hr (L/hr) | 1.24 (4.7) | 1.36 (5.15) | 1.04 (3.92) | 1.24 (4.67) | |
| | Fuel Consumption @ 75% Power | gal/hr (L/hr) | 1.86 (7.04) | 2.04 (7.72) | 1.56 (5.88) | 1.86 (7.01) | |
| | Fuel Consumption @ 100% Power | gal/hr (L/hr) | 2.48 (9.39) | 2.72 (10.29) | 2.07 (7.83) | 2.47 (9.34) | |
| | Combustion Air Flow | ft ³ /min (m ³ /min) | 3814 (108) | | 4750 (134) | | |
| Air | Air Intake Restriction | In.H₂O (kPa) | 18.1 | | (4.5) | | |
| Requirement | Exhaust Temperature | °F (°C) | 842 (450) | | 797 (425) | | |
| | Maximun Allowable Back Pressure | In.H₂O (kPa) | 60.6 (15.1) | | | | |
| | Specific Oil consumption | | 0.95g/kW-hr | | | | |
| Lubrication | Oil Pan Capacity | qt (L) | 13 (14.3) | | | | |
| System | Total Engine Oil Cap. w/filter | qt (L) | 14 (15.4) | | | | |
| | Oil Filter Type | | | Cartridge | | | |
| | Battery Charging Alternator | Volts, Ground | 14V, negative | | | | |
| Engine | Baterry Charging Alternator | Rated amps | 45 | | | | |
| Electricals | Recommended Battery Cold Crank | CCA amps | 600 | | | | |
| | Starter Motor | Volts, Ground | 12V, negative | | | | |
| Operation | Temperature and Altidtude Losses | | Consult Factory | | | | |

OPTIONAL EQUIPMENT

Cooling System

- □ Remote Radiator
- Jacket Water Heater

Fuel System

- ☐ Fuel/Water Separator
- Auxiliary Fuel Pump
- □ Sub-Base UL Tank 142 Double Wall

Start System

- Battery Nicad
- Battery Warmer Plate
- Battery Charger
 - Automatic Float Equalizing

☐ Trickle Switchgear

- ☐ Main Line Circuit Breaker
 - Shunt trip
 - Auxiliary switch
- Automatic Transfer Switch
- □ Paralleling

Generator

- □ Permanent Magnet Excitation
- Space Heaters

Control Panel

- NFPA 110 Ready
- □ Remote Annunciation Panel

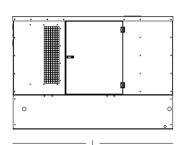
Audible Alarm

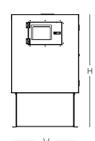
General

- □ Spring vibration isolators
 - Interior lights AC or DC
- □ Trailer
- Export Packaging
- Special Testing
- Warranties
 - Year

For Other Options Consult

DIMENSIONS AND WEIGHT





| | Units | Sound Att. Unit |
|--------|----------|-----------------|
| Length | In. (mm) | 87 (2210) |
| Width | In. (mm) | 37 (940) |
| Height | In. (mm) | 64 (1626) |
| Weight | Lbs (kg) | 1747 (794) |

General configuration for reference only, <u>do not</u> use these dimensions for installation purposes. Contact your local dealer for certified drawings.

All Specifications and Materials are subject to change without prior notice.

ARMSTRONG POWER SYSTEMS

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