

Features:

- Excitation system: self-excited (AREP and PMG are optional)
- ATS (automatic transfer switch) receptacle
- Lockable battery isolator switch
- Stainless galvanized zinc plates with strong corrosion resistance
- Vibration isolators between the engine/alternator and base frame
- Integrated wiring design
- Base fuel tank for at least 8 hours running
- Equipped with an industrial muffler
- Engine oil pump
- 50 C radiator
- Top lifting and steel base frame with forklift holes
- Drainage for fuel tank
- Complete protection functions and safety labels
- IP54 (soundproof sets), IP56 (control system)
- Water jacket preheater, oil heater and double air cleaner, etc. are available.



Output Ratings

| Generating Set Model | Prime | Standby |
|----------------------|--------------|--------------|
| X165C6/S | 188kVA/150kW | 206kVA/165kW |

Ratings at 0.8 power factor.

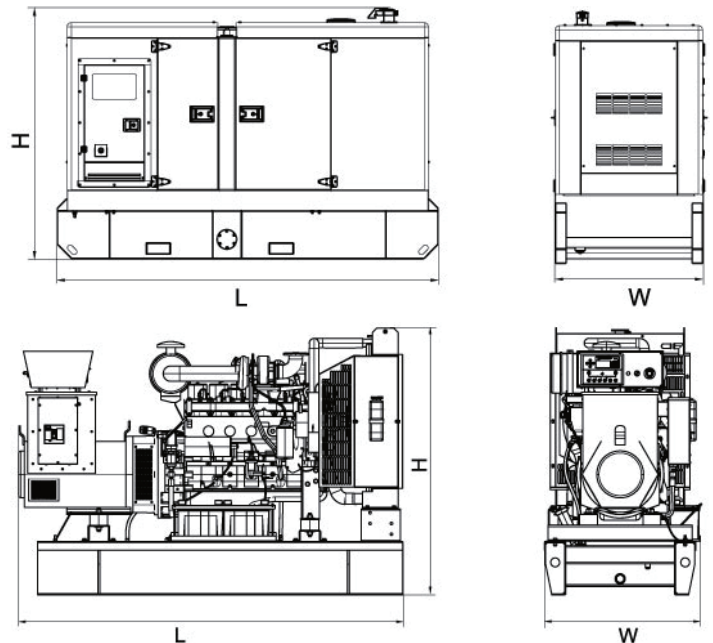
Ratings and Performance Data

| | | |
|---|--------------------|-----|
| Engine Make & Model: | 6CTA8.3-G2 | |
| Alternator Model: | UCI274F | |
| Alternator Brand: | STAMFORD | |
| Control System: | PLC-920 / PLC-7420 | |
| Noise Level@7m: | 64.1 | |
| Frequency & Phase: | 60Hz & 3PH | |
| Engine Speed: RPM | 1800 | |
| Structure Type: | X165C6 | A |
| | X165C6S | R |
| Fuel Tank Capacity: L | X165C6 | 290 |
| | X165C6S | 500 |
| Fuel Consumption: l/hr (100% Load) | Prime | 48 |
| | Standby | 53 |

Dimensions and Weights

| Generating Set Model | Length (L) mm (in) | Width (W) mm (in) | Height (H) mm (in) | Dry kg (lb) |
|----------------------|--------------------|-------------------|--------------------|-------------|
| X165C6 | 2305 | 935 | 1675 | 1663 |
| X165C6S | 3442 | 1300 | 1850 | 2568 |

Dry = With Lube Oil Wet = With Lube Oil and Coolant



Also available in the following voltages: 415/240V-380/220V-220/127V-200/115V;

ESP: Standby Power Standby duty, operation under variable load, without over load;

PRP: Prime Power-Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

The data is only for your reference but not for use of sales.

M: Mechanical speed governor, E/ECU: Electronic speed governor;

NA: Naturally aspirated, TC: Turbocharged, TCA: Turbocharged and air-air aftercooled, TCW: Water-cooled Turbocharged;

The weights are approximate and without fuel.

Engine model: 6CTA8.3-G2

1500 rpm (50 Hz) Ratings

| Gross Engine Output | | | Net Engine Output | | | Typical Generator Set Output | | | | | |
|---------------------|---------|---------|-------------------|---------|---------|------------------------------|-----|------------|-----|-----------|-----|
| Standby | Prime | Base | Standby | Prime | Base | Standby(ESP) | | Prime(PRP) | | Base(COP) | |
| kWm/BHP | | | kWm/BHP | | | kWe | kVA | kWe | kVA | kWe | kVA |
| 180/241 | 163/219 | 133/178 | 175/234 | 158/211 | 128/171 | 160 | 200 | 146 | 182 | 119 | 149 |

1800 rpm (60 Hz) Ratings

| Gross Engine Output | | | Net Engine Output | | | Typical Generator Set Output | | | | | |
|---------------------|---------|---------|-------------------|---------|---------|------------------------------|-----|------------|-----|-----------|-----|
| Standby | Prime | Base | Standby | Prime | Base | Standby(ESP) | | Prime(PRP) | | Base(COP) | |
| kWm/BHP | | | kWm/BHP | | | kWe | kVA | kWe | kVA | kWe | kVA |
| 207/277 | 188/252 | 159/213 | 199/266 | 180/241 | 151/202 | 175 | 219 | 160 | 200 | 139 | 173 |

General Engine Data

| | |
|-----------------------------|---|
| Type | 4 cycle, in-line, Turbo Charged |
| Bore mm | 114 mm (4.49 in.) |
| Stroke mm | 135 mm (5.32 in.) |
| Displacement Litre | 8.3 litre (505.0 in. ³) |
| Cylinder Block | Cast iron, 6 cylinder |
| Battery Charging Alternator | 60 amps |
| Starting Voltage | 24 volt, negative ground |
| Fuel System | Direct injection |
| Fuel Filter | Spin-on fuel filters with water separator |
| Lube Oil Filter Type(s) | Spin-on full flow filter |
| Lube Oil Capacity (l) | 23.8 |
| Flywheel Dimensions | 2/11.5 |

Coolpac Performance Data

| | |
|---|--|
| Cooling System Design | Jacket Water After Cooled |
| Coolant Ratio | 50% ethylene glycol; 50% water |
| Coolant Capacity (l) | 26.0 |
| Limiting Ambient Temp.** | 55.0 |
| Fan Power | 1.3 |
| Cooling system air flow (m ³ /s)** | 3.7 |
| Air Cleaner Type | Dry replaceable element with restriction indicator |

** @ 13 mm H₂O

Weights & Dimension

| Length | Width | Height | Weight (dry) |
|--------|-------|--------|--------------|
| mm | mm | mm | kg |
| 1417 | 831 | 1255 | 769 |

Fuel Consumption 1500 (50 Hz)

| % | kWm | BHP | L/ph | US gal/ph |
|-------------------------|-----|-----|------|-----------|
| Standby Power | | | | |
| 100 | 180 | 241 | 45 | 11.9 |
| Prime Power | | | | |
| 100 | 163 | 219 | 40 | 10.7 |
| 75 | 122 | 164 | 30 | 7.9 |
| 50 | 82 | 110 | 20 | 5.3 |
| 25 | 41 | 55 | 11 | 2.9 |
| Continuous Power | | | | |
| 100 | 133 | 178 | 32 | 8.5 |

Ratings Definitions

Emergency Standby Power (ESP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Limited-Time Running Power (LTP):
Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.

Prime Power (PRP):
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Base Load (Continuous) Power (COP):
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

Fuel Consumption 1800 (60 Hz)

| % | kWm | BHP | L/ph | US gal/ph |
|-------------------------|-----|-----|------|-----------|
| Standby Power | | | | |
| 100 | 207 | 277 | 53 | 14.1 |
| Prime Power | | | | |
| 100 | 188 | 252 | 48 | 12.6 |
| 75 | 141 | 189 | 35 | 9.2 |
| 50 | 94 | 126 | 24 | 6.4 |
| 25 | 47 | 63 | 14 | 3.6 |
| Continuous Power | | | | |
| 100 | 159 | 213 | 40 | 10.5 |

Alternator model: UC1274F

| | | | | | | | | |
|--|--|---------|--------------------------|---|------------------------------------|---------|---------|---------|
| CONTROL SYSTEM | SEPARATELY EXCITED BY P.M.G. | | | | | | | |
| A.V.R. | MX321 | MX341 | | | | | | |
| VOLTAGE REGULATION | ± 0.5 % | ± 1.0 % | With 4% ENGINE GOVERNING | | | | | |
| SUSTAINED SHORT CIRCUIT | REFER TO SHORT CIRCUIT DECREMENT CURVES (page 7) | | | | | | | |
| CONTROL SYSTEM | SELF EXCITED | | | | | | | |
| A.V.R. | SX460 | AS440 | | | | | | |
| VOLTAGE REGULATION | ± 1.0 % | ± 1.0 % | With 4% ENGINE GOVERNING | | | | | |
| SUSTAINED SHORT CIRCUIT | SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT | | | | | | | |
| INSULATION SYSTEM | CLASS H | | | | | | | |
| PROTECTION | IP23 | | | | | | | |
| RATED POWER FACTOR | 0.8 | | | | | | | |
| STATOR WINDING | DOUBLE LAYER CONCENTRIC | | | | | | | |
| WINDING PITCH | TWO THIRDS | | | | | | | |
| WINDING LEADS | 12 | | | | | | | |
| STATOR WDG. RESISTANCE | 0.024 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED | | | | | | | |
| ROTOR WDG. RESISTANCE | 1.52 Ohms at 22°C | | | | | | | |
| EXCITER STATOR RESISTANCE | 20 Ohms at 22°C | | | | | | | |
| EXCITER ROTOR RESISTANCE | 0.091 Ohms PER PHASE AT 22°C | | | | | | | |
| R.F.I. SUPPRESSION | BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. refer to factory for others | | | | | | | |
| WAVEFORM DISTORTION | NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0% | | | | | | | |
| MAXIMUM OVERSPEED | 2250 Rev/Min | | | | | | | |
| BEARING DRIVE END | BALL. 6315-2RS (ISO) | | | | | | | |
| BEARING NON-DRIVE END | BALL. 6310-2RS (ISO) | | | | | | | |
| | 1 BEARING | | | | 2 BEARING | | | |
| WEIGHT COMP. GENERATOR | 530 kg | | | | 545 kg | | | |
| WEIGHT WOUND STATOR | 200 kg | | | | 200 kg | | | |
| WEIGHT WOUND ROTOR | 188.67 kg | | | | 177.71 kg | | | |
| WR ² INERTIA | 1.555 kgm ² | | | | 1.5044 kgm ² | | | |
| SHIPPING WEIGHTS in a crate | 563 kg | | | | 577 kg | | | |
| PACKING CRATE SIZE | 123 x 67 x 103(cm) | | | | 123 x 67 x 103(cm) | | | |
| | 50 Hz | | | | 60 Hz | | | |
| TELEPHONE INTERFERENCE | THF<2% | | | | TIF<50 | | | |
| COOLING AIR | 0.514 m ³ /sec 1090 cfm | | | | 0.617 m ³ /sec 1308 cfm | | | |
| VOLTAGE SERIES STAR | 380/220 | 400/231 | 415/240 | 440/254 | 416/240 | 440/254 | 460/266 | 480/277 |
| VOLTAGE PARALLEL STAR | 190/110 | 200/115 | 208/120 | 220/127 | 208/120 | 220/127 | 230/133 | 240/138 |
| VOLTAGE SERIES DELTA | 220/110 | 230/115 | 240/120 | 254/127 | 240/120 | 254/127 | 266/133 | 277/138 |
| KVA BASE RATING FOR REACTANCE VALUES | 160 | 160 | 160 | N/A | 181.3 | 190 | 190 | 206.3 |
| X _d DIR. AXIS SYNCHRONOUS | 2.24 | 2.02 | 1.88 | - | 2.53 | 2.37 | 2.17 | 2.16 |
| X' _d DIR. AXIS TRANSIENT | 0.19 | 0.17 | 0.16 | - | 0.21 | 0.20 | 0.18 | 0.18 |
| X'' _d DIR. AXIS SUBTRANSIENT | 0.13 | 0.12 | 0.11 | - | 0.14 | 0.13 | 0.12 | 0.12 |
| X _q QUAD. AXIS REACTANCE | 1.38 | 1.25 | 1.16 | - | 1.53 | 1.43 | 1.31 | 1.31 |
| X'' _q QUAD. AXIS SUBTRANSIENT | 0.17 | 0.15 | 0.14 | - | 0.20 | 0.19 | 0.17 | 0.17 |
| X _l LEAKAGE REACTANCE | 0.07 | 0.06 | 0.06 | - | 0.09 | 0.08 | 0.08 | 0.08 |
| X ₂ NEGATIVE SEQUENCE | 0.14 | 0.13 | 0.12 | - | 0.16 | 0.15 | 0.14 | 0.14 |
| X ₀ ZERO SEQUENCE | 0.08 | 0.08 | 0.07 | - | 0.10 | 0.09 | 0.09 | 0.09 |
| REACTANCES ARE SATURATED | | | | VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED | | | | |
| T' _d TRANSIENT TIME CONST. | 0.035 s | | | | | | | |
| T'' _d SUB-TRANSTIME CONST. | 0.011 s | | | | | | | |
| T' _{do} O.C. FIELD TIME CONST. | 0.9 s | | | | | | | |
| T _a ARMATURE TIME CONST. | 0.009 s | | | | | | | |
| SHORT CIRCUIT RATIO | 1/X _d | | | | | | | |