

Ratings Range



Shown with optional equipment

60Hz
 Standby: kW 204-250
 kVA 255-318
 Prime: kW 192-225
 kVA 240-281

Features

- Single source responsibility for the generator set and accessories.
- Prototype and production tested to insure one step load acceptance per NFPA 110.
- Two year limited warranty on generator sets and accessories.
- Unit conforms to CSA, NEMA, EGSA, ANSI and other standards.
- Heavy duty 4 cycle industrial engine for reliability and fuel efficiency.
- Brushless rotating field generator with class H insulation.
- Trailer with integral fuel tank and storage
- Integral vibration isolators.
- EPA Tier 3 Certified Engine.

| Generator | Voltage | PH | Hz | Standby Rating | | Prime Rating | |
|------------|---------|----|----|----------------|------|--------------|------|
| | | | | kW/kVA | Amps | kW/kVA | Amps |
| HCI434D311 | 277/480 | 3 | 60 | 250/318 | 376 | 225/281 | 338 |
| | 139/240 | 3 | 60 | 250/318 | 753 | 225/281 | 676 |
| | 254/440 | 3 | 60 | 250/318 | 411 | 225/281 | 369 |
| | 127/220 | 3 | 60 | 250/318 | 822 | 225/281 | 738 |
| | 240/416 | 3 | 60 | 250/318 | 435 | 225/281 | 390 |
| | 120/208 | 3 | 60 | 250/318 | 870 | 225/281 | 781 |
| | 120/240 | 3 | 60 | 250/318 | 754 | 225/281 | 677 |
| | 219/380 | 3 | 60 | 250/318 | 463 | 225/281 | 418 |
| | 120/240 | 1 | 60 | 168/168 | 700 | 153/153 | 638 |

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor.
STANDBY RATINGS: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.
PRIME POWER RATINGS: Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1, BS5514, AS2789, and DIN 6271. For limited running time and base load ratings consult the factory. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.
GENERAL GUIDELINES FOR DERATION: Altitude: Derate 0.5% per 100m (328 ft.) elevation above 1000m (3279 ft.)

Iveco Diesel Engine

Model CURSOR87 TE1D

Basic technical data

| | |
|----------------------|--------------------|
| Number of cylinders | 6 |
| Cylinder arrangement | Vertical in-line |
| Cycle | Four stroke |
| Induction system | turbocharged |
| Compression ratio | 16.5:1 |
| Bore | 4.6 in. (117 mm) |
| Stroke | 5.31 in. (135 mm) |
| Cubic capacity | 531 cu in. (8.7 L) |
| Firing order | 1,4,2,6,3,5 |

Cooling system

| | |
|---------------------|-----------------------|
| Type | Liquid |
| Recommended Coolant | water x 50%paraflu 11 |

| | |
|-------------------|-----------------|
| Coolant Capacity | |
| Engine only | 4 gal (15 L) |
| Radiator and hose | 12.7 gal (48 L) |

| | |
|-----------------------------|---------------------------|
| Coolant pump flow | 76 gal/min. (287.5 l/min) |
| Pressure cap setting | 10 psi (70 kPa) |
| Shutdown switch setting | 217.4°F (103°C) |
| Max. additional restriction | .03 psi (196 Pa) |

Fan

| | |
|------------------|-----------------------|
| Fan diameter | 27.5 in (700 mm) |
| Number of blades | 8 |
| Fan drive ratio | 1.03:1 |
| Speed | 1854 rpm |
| Fan air flow | 15362 cfm (7.25 m³/s) |

| Designation | Units | Standby |
|-------------------------------|----------|-------------|
| | | 60 Hz |
| Continuous Power (gross) | hp (kWm) | 283 (211) |
| Stand-by Power (gross) | Hp (kWm) | 389 (290) |
| Fan Consumption | Hp (kWm) | 18.5 (13.8) |
| Continuous Power (net) | Hp (kWm) | 270 (201) |
| Stand-b Power (net) | Hp (kWm) | 337 (251) |
| Mean piston speed | m/s | 8.1 |
| Brake mean effective pressure | bar | 22.2 |

Fuel system

| | |
|----------------|--------------------|
| Injection type | direct common rail |
| Governor | Bosch EDC7 UC31 |

Exhaust system

| | |
|----------------------------|------------------|
| Maximum back pressure | 0.73 psi (5 kPa) |
| Gas flow at stand-by power | (1557 kg/h) |
| Energy to exhaust | 668 kcal/kwh |

Fuel Consumption gal/hr (L/hr.)

| Power Rating | | | | |
|--------------|----------------|------|-----|-----|
| Speed | Standby | 100% | 80% | 50% |
| 60Hz | 18.7 (70.8) | n/a | n/a | n/a |

Lubrication system

| | |
|---|-----------------------------|
| Lubricating oil capacity total system | 7.4 gal (28 L) |
| Maximum sump capacity | 6.1 gal (23 L) |
| Minimum sump capacity | 3.3 gal (12.5 L) |
| Lubricating oil pressure | |
| At rated speed | 43.5-72.5 psi (300-500 kPa) |
| Oil temperature (normal operation) | 32 ° F (0 °C) |
| Oil temperature (max) | 248 ° F (120 °C) |
| Oil consumption at full load as a % of fuel consumption | <0.2 |

Electrical system

| | |
|-----------------------------------|------------------------|
| Type | 24 volt negative earth |
| Alternator voltage | 28V |
| Alternator output | 90 A |
| Starter motor type | Denso |
| Starter motor power | 6.0 hp (4.5 kW) |
| Number of teeth on flywheel | 149 |
| Number of teeth on starter pinion | 10 |
| Battery recommended CCA | 184 Ah x2 |
| Battery discharge current | 1200 amp |

Induction system

| | |
|-------------------------------------|----------------------|
| Air consumption at 100% of load | 735 cfm (1248 m³/hr) |
| Air intake restriction Clean filter | .3 psi (2 kPa) |
| Air intake restriction dirty filter | .7 psi (5 kPa) |
| Air filter type | dry |

Generator Controller Options



Digital End Mount Control Panel

The DGC-2020 digital genset controller provides integrated engine-genset control, protection, and metering. Microprocessor based technology allows for exact measurement, setpoint adjustment, and timing functions. Front panel 3 position controls and indicators enable quick and simple operation. The panel is also equipped with an emergency stop push button and an Alarm Horn with silence button. A wide temperature-range liquid crystal display (LCD) with backlighting can be viewed under a wide range of ambient light and temperature conditions down to 104° F (40° C).

Features SAE J1939 Engine ECU communications, Multilingual capability, Remote RS-485 communications for Optional RDP-110 Remote Annunciator, Extremely rugged, fully encapsulated design with 4 programmable contact inputs and 10 contact outputs (2 A/c rated).

It also features Modbus Communications with RS-485, Battery Backup for Real Time Clock, UL recognized, CSA certified, CE approved, HALT (Highly Accelerated Life Tests) tested, IP 54 Front Panel rating with integrated gasket, and NFPA 110 Level 1 Compatible.



Analog End Mount Controller

This Generator control panel has analog instruments to monitor AC voltage, AC frequency, and percent of load. The analog engine instruments monitor oil pressure, water temperature, battery voltage, fuel level, and run time/hour meter. Safety shutdowns provide red LED indication for overspeed, overcrank, low oil pressure, and high coolant temperature. Provide green LED indication of engine running. Control switch is provided for local and remote starting with 3 position run/off/remote switch.

There is also an engine mounted emergency by-pass key switch.

AC Alternator Specifications

STANDARDS

Stamford industrial generators meet the requirements of BS EN 60034 and the relevant section of other international standards such as B55000, VDE 0530, NEMA MG1-32, 1EC34, CSA C22.2-100, A51359.

Other standards and certifications can be considered on request.

VOLTAGE REGULATORS

MX341 AVR

This sophisticated AVR is incorporated into the Stamford Permanent Magnet Generator (PMG) control system.

The PMG provides power via the AVR to the main exciter, giving a source of constant excitation power independent of generator output. The main exciter output is then fed to the main rotor, through a full wave bridge, protected by a surge suppressor. The AVR has in-built protection against sustained over-excitation, caused by internal or external faults. This de-excites the machine after a minimum of 5 seconds.

An engine relief load acceptance feature can enable full load to be applied to the generator in a single step.

If three-phase sensing is required with the PMG system the MX321 AVR must be used.

We recommend three-phase sensing for applications with greatly unbalanced or highly non-linear loads.

(Optional) MX321 AVR

The most sophisticated of all our AVRs combines all the features of the MX341 with, additionally, three-phase rms sensing, for improved regulation and performance. Over voltage protection is built-in and short circuit current level adjustments is an optional facility.

WINDINGS & ELECTRICAL PERFORMANCE

All generator stators are wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A frilly connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

SHAFT

The generator rotor is dynamically balanced to better than B56861:Part 1 Grade 2.5 for minimum vibration in operation.

INSULATION/IMPREGNATION

The insulation system is class H.

All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

QUALITY ASSURANCE

Generators are manufactured using production procedures having a quality assurance level to BS EN ISO 9001.

Standard Features and Optional Accessories

Standard Features

- **Trailer with integral fuel tank**
- **Weather enclosure**
- **Control Panel**
- **Vibration isolators**
- **Oil drain valve with extension**
- **Battery**
- **Battery rack**
- **Battery cables**
- **Water jacket heater**
- **Owners manual**

Optional Accessories

- Sound Attenuated Enclosure
- Output Power Cable
- Line Circuit Breaker
- Y-YY-ZZ Mult-voltage selector switch
- 20 amp 120vac GFI receptacle
- 20 amp 120vac GFI & 30 amp 120/240 vac twist lock receptacle
- 30A 120vac RV receptacle
- 400A Cam-Loks
- 4/0 Diesel Locomotive cable
- Extenda-Lites
- Hydraulic Brake kit
- Pintle ring hitch
- Spare tire kit
- Lug wrench
- Hyd. Jack
- Single Point Lift
- Oil Pan Heater
- Battery
- Battery Charger
- Battery Heaters
- Block Heater

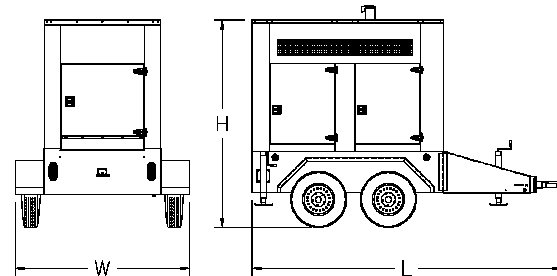
Detailed Description of Trailer

These trailers are equipped with dual 6000 pound axles, integral DOT rated 200 gallon fuel tank, electric brakes with safety disconnect and 7 wire connector, torsion axles, front tongue jack, two rear stabilizer jacks, ICC lighting, and license plate bracket. These trailers also come with a lockable storage trunk at front of trailer and a cable storage in the rear.

WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H, in.: 228 in. x 97 in. x 101 in.
WEIGHT (DRY): 10,340 lbs.

Note: Dim and weights reflect standard open unit with no options



Note: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

TAYLOR
POWER SYSTEMS

461 Hwy. 49S
Richland, Mississippi 39218
Phone (601)-932-5674
Toll Free 1-800-367-7639
Fax (601)-932-4028
Web Site www.taylorpower.com