

GeneratorJoe





Centurion "PM" Series Model: 175 CPM & CPM3

Ratings

Single and/or Three Phase Available

		60 Hz	50 Hz
Standby:	kW	175.0	145.8
	kVA	219.0	182.5
Prime:	kW	157.0	131.2
	k\/Δ	196 N	164 2

Shown with optional equipment

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.

~470				Standby F	Rating	Prime R	ating
Generator	Voltage	PH	Hz	kW/kVA	Amps	kW/kVA	Amps
UCI274H311	277/480	3	60	175/219	264	157/196	236
	139/240	3	60	175/219	527	157/196	472
	254/440	3	60	175/219	288	157/196	257
	127/220	3	60	175/219	575	157/196	515
	240/416	3	60	175/219	304	157/196	272
	120/208	3	60	175/219	609	157/196	545
	120/240	3	60	175/219	527	157/196	472
	219/380	3	60	175/219	333	157/196	298
	120/240	1	60	142/142	592	128/128	533
UCI274H06	120/240	1	60	156/156	650	144/144	600



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 in 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.)Temperature: Derate 1.0% per 10°C (18°F) temperature above 40°C (104°F).

Perkins Diesel Engine

Model 1106D-E66TAG4

Basic technical data

Number of cylinders Cylinder arrangement

Cycle

Induction system Compression ratio

Bore Stroke Cubic capacity Direction of rotation

402.8 cu in. (6.6 L) Clockwise Firing order 1,5,3,6,2,4

Cooling system

Cooling pack

Overall face area of matrix Width of matrix 27.4 in. (697 mm) Height of matrix 31.1 in. (789 mm)

Radiator Face area

Number of rows and material Matrix density and material Width of matrix

Height of matrix Pressure cap setting Charge cooler Face area

Number of rows and material Matrix density and material

Width of matrix Height of matrix

Fan diameter Drive ratio Number of blades

Material Type Coolant

Total system capacity With radiator Without radiator Coolant pump drive Coolant pump drive ratio Maximum top tank temperature Temperature rise across engine (rating dependent)

Thermostat operation range Recommended coolant:

852.4 in² (0.55 m²)

Vertical in-line

4.13 in. (105 mm)

5.0 in. (127 mm)

Turbocharged and air charge cooled

Four stroke

16.3:1

315.5 in² (0.35 m²) 5, Aluminum

10.0, Aluminum fins per inch

17.3 in. (439 mm) 31.1 in. (789 mm) 14.5 psi (100 kPa)

201.5 in² (0.20 m²) 2, Aluminum

10.0, Aluminum fins per inch

10.2 in. (258 mm) 31.1 in. (789 mm)

24 in. (610 mm)

1.2:1 Nylon

n/a n/a 1.8 gal (9.5 L) Gear 2.1 233° F (112° C)

43.9-43.9° F (6.6-7.9°C) 185-203° F (85-95 °C)

50% ethylene glycol with a corrosion Inhibitor (BS 658: 1992 or MOD AL39) and 50% clean fresh water.

~10c		Prime	Standby
Designation	Units	60 H	z
Gross engine power	hp (kWb)	249 (186)	274 (204)
Electropak net engine power	hp (kWm)	233 (174)	258 (192)
Brake mean effective pressure	psi (kPa)	272 (1877)	300 (2065)
Engine coolant flow (against 5 psi (35 kPa) restriction)	gal/min (L/min)	57 (216)	57 (216)
Combustion air flow (at rated speed)	cfm (m³/min)	446 (12.6)	466 (13.2)
Exhaust gas flow (max.)	cfm (m³/min)	1162 (32.9)	1218 (34.5)
Exhaust gas temperature in manifold Max.	°F (°C)	1231 (666)	1251 (677)
Overall thermal efficiency (net)	%	n/a	n/a



Exhaust system

Maximum back pressure 1.8 psi (12.2 kPa) Exhaust outlet size 3.5 in. (90 mm)

Fuel system

Type of injection Direct Fuel injection pump CR200

Unit injector / multi-hole Fuel atomizer

Fuel lift pump

Max flow through customer filter 0.4 gal/min. (1.5 L/min.) Maximum suction head 30 kPa Maximum static pressure head 600 kPa

Control by ECM Governor type Speed control to ISO 8528, G3

Fuel Consumption Gal/Hr (L/Hr.)

Power Rating				
Speed	110%	100%	75%	50%
60Hz	n/a	13.4 (50.7)	10.5 (39.7)	8.0 (30.2)

Lubrication system

Lubricating oil capacity total system 4.4 gal (16.5 L) 4.1 gal (15.5 L) Maximum sump capacity Minimum sump capacity 3.3 gal (12.5 L)

Maximum engine operating angles

Front up, front down, right side or left side

Lubricating oil pressure

Relief valve opens 62 psi (430 kPa) 65 psi (450 kPa) At maximum no-load speed Oil temperature (continuous operation) 257° F (125° C)

Oil temperature (maximum intermittent

Oil consumption at full load as a % of

fuel consumption 0.1%

Electrical system

12 volt negative earth Type Alternator type Denso A127i Alternator voltage 12V Alternator output 100A Starter motor type Denso P95 Starter motor voltage 12V Starter motor power 4.0 hp (3.0 kW) Number of teeth on flywheel 126

Number of teeth on starter pinion 10 Minimum cranking speed 60 rev/min

Induction system

Maximum air intake restriction .73 psi (5 kPa) Clean filter dirty filter 1.2 psi (8 kPa) Air filter type paper element





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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, set point adjustment, and timing functions. Front panel 3 position controls and indicators enable quick and simple operation. The panel is also equipped with a 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 ADC 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
- Flex Fuel Lines

Optional Accessories

- Sound Attenuated Enclosure
- Output Power Cable
- □ Line Circuit Breaker
- Y-YY-ZZ Mult-voltage selector switch
- □ 20 Amp 120v VAC GFI receptacle
- 20 Amp 120 VAC GFI & 30 Amp 120/240
 VAC twist lock receptacle
- □ 30A 120 VAC 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 Charger
- Battery Heaters

Detailed Description of Trailer

These trailers are equipped with dual 5000 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



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





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A small business owned by service a connected disabled veteran.

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