

GeneratorJoe





Centurion "PM" Series Model: 140 CPM & CPM3

Ratings

Single and/or Three Phase Available

		60 Hz	50 Hz
Standby:	kW	140.0	116.7
	kVA	175.0	145.8
Prime:	kW	126.0	105.3
	k\/∆	157 5	131 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.

				Standby Rating		Prime Rating	
Generator	Voltage	PH	Hz	kW/kVA	Amps	kW/kVA	Amps
UCI274F311	277/48	3	60	140/175	210.5	126/157.5	189.4
	139/24 0	3	60	140/175	421	126/157.5	378.9
	254/44 0	3	60	140/175	229.6	126/157.5	206.7
	127/22 0	3	60	140/175	459.3	126/157.5	413.3
	240/41 6	3	60	140/175	242.9	126/ <mark>157.</mark> 5	218.6
	120/20 8	3	60	140/175	485.8	126/157.5	437.2
	120/24 0	3	60	140/175	421	126/157.5	378.9
	219/38	3	60	132/165	250.7	118/147.5	224.1
	120/24	1	60	108.8/108.8	329	97.5/97.5	406.3
UCI274F06	120/24 0	1	60	135/135	562.5	125/125	520.8



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-E66TAG2

Basic technical data

Number of cylinders

Cylinder arrangement

Cycle

Induction system

Compression ratio

Stroke Cubic capacity

Direction of rotation

6

Vertical in-line

Turbocharged, air to air charge cooled

16.3:1

4.13 in. (105 mm) 5.0 in. (127 mm) 402.8 cu in. (6.6 L)

Clockwise

Cooling system

Cooling pack

Overall face area of matrix
Width of matrix
Height of matrix

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) 27.4 in. (697 mm) 31.1 in. (789 mm)

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 7 Nylon

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.

106		Prime	Standby
Designation	Units	60	Hz
Gross engine power	hp (kWb)	194 (145)	217 (162)
Electropak net engine power	hp (kWm)	183 (137)	206 (154)
Brake mean effective pressure	psi (kPa)	212 (1461)	237 (1633)
Engine coolant flow (against 5 psi (35 kPa) restriction)	gal/min (L/min)	45 (170)	45 (170)
Combustion air flow (at rated speed)	cfm (m³/min)	434 (12.3)	445 (12.6)
Exhaust gas flow (max.)	cfm (m³/min)	1010 (28.6)	1049 (29.7)
Exhaust gas temperature in manifold Max.	°F (°C)	801 (427)	819 (437)
Overall thermal efficiency (net)	%	35.1	37.4



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 Direct
Common rail

Fuel atomizer Unit injector / multi-hole

Fuel lift pump

Max flow through customer filter 0.4 gal/min. (1.5 L/min.)

Max fuel supply restriction at lift pump Max fuel return restriction at low idle

Max fuel return restriction at low idle Max fuel return flow Maximum suction head

Maximum static pressure head 600 kPa
Governor type Control by ECM
Speed control to ISO 8528, G3

Fuel Consumption Gal/Hr (L/Hr.)

30 kPa

Power Rating					
Speed	110%	100%	75%	50%	
60Hz		11.5 (43.5)	8.8 (33.3)	6.6 (24.9)	

Lubrication system

Lubricating oil capacity total system

4.4 gal (16.5 L)

Maximum sump capacity

4.1 gal (15.5 L)

Minimum sump capacity

3.3 gal (12.5 L)

Maximum engine operating angles

Front up, front down, right side or left side 25°

Lubricating oil pressure

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

Oil temperature (maximum intermittent

operation)

Oil consumption at full load as a % of

fuel consumption 0.1%

Electrical system

Type 12 volt negative earth
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



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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 120 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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