GeneratorJoe

Made in the USA!

Shown with optional equipment

Centurion "PM" Series
Model: 400 CPM & CPM3

Ratings

Single and/or Three Phase Available

		60 Hz	50 Hz
Standby:	kW	400.0	333.3
	kVA	500.0	416.7
Prime:	kW	360.0	295.0
	kVA	450.0	375.0

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.
- Cooling system designed for ambients up to 50°C (122°F)
- EPA Tier 3 Certified Engine.

Generator	Voltage	PH	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
HCI544C311	277/480	3	60	400/500	601	360/450	541
	139/240	3	60	400/500	1203	360/450	1083
	254/440	3	60	400/500	656	360/450	590
	127/220	3	60	400/500	1312	360/450	1181
	240/416	3	60	400/500	694	360/450	625
	120/208	3	60	400/500	1388	360/450	1249
	120/240	3	60	400/500	1203	360/450	1083
	219/380	3	60	384/480	729	350/438	665
	120/240	1	60	210/210	875	190/190	792

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 2206D-E13TAG3

Basic technical data

Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Induction system	Turbocharged, air to air charge cooled
Compression ratio	16.3:1
Bore	5.12 in. (130 mm)
Stroke	6.2 in. (157 mm)
Cubic capacity	762.8 cu in. (12.5 L)
Direction of rotation	Anti-clockwise when viewed from flywheel
Firing order	1,5,3,6,2,4

Cooling system

Radiator

Face area	1,922 in² (1.24 m²)
Number of rows and material	1, Aluminum
Matrix density and material	12.0, Aluminum fins per inch
Width of matrix	41.3 in. (1,048 mm)
Height of matrix	43.3 in. (1,100 mm)
Pressure cap setting	10.2 psi (70 kPa)

Charge cooler

Face area	1,559 in² (1.006 m²)
Number of rows and material	1, Aluminum
Matrix density and material	12.0, Aluminum fins per inch
Width of matrix	36.0 in. (915 mm)
Height of matrix	43.3 in. (1,100 mm)

Fan

diameter	36.5 in. (927 mm)
Drive ratio	0.92:1
Number of blades	9
Material	Composite
Type	Pusher

Coolant

Total system capacity	13.6 gal (51.4 L)
Coolant pump drive	Gear
Maximum top tank temperature	219° F (104° C)
Temperature rise across engine (rating dependent)	50° F (10 °C)
Thermostat operation range	189-208° F (87-98 °C)
Recommended coolant:	50% ethylene glycol with a corrosion Inhibitor (BS 658 : 1992 or MOD AL39) and 50% clean fresh water.

Designation	Units	Prime	Standby
		60 Hz	
Gross engine power	hp (kWb)	545 (406.5)	619 (461.7)
Brake mean effective pressure	psi (kPa)	315 (2171)	352 (2430)
Engine coolant flow (against 4.4 psi (30 kPa) restriction)	gal/sec (L/sec)	1.75 (6.7)	1.75 (6.7)
Combustion air flow (at rated speed)	cfm (m³/min)	950 (26.9)	1052 (29.8)
Exhaust gas flow (max.)	cfm (m³/min)	2656 (75.2)	3044 (86.2)
Exhaust gas temperature at turbo-charger outlet	°F (°C)	1256 (680)	1256 (680)
Overall thermal efficiency (net)	%	39.6	39.3

Exhaust system

Maximum back pressure	1.5 psi (10.0 kPa)
Exhaust outlet size	4.8 in. (123 mm)

Fuel system

Type of injection	MEUI
Fuel injection pump	MEUI
Governor type	electronic
Injector Pressure	30,023 psi (207 MPa)

Fuel lift pump

Lift pump type	gear driven
Lift pump delivery @ 1800 rpm	158.5 gal/hr (600 l/hr)
Lift pump delivery pressure	90 psi (621 kPa)
Maximum suction head	4.4 psi (30 kPa)
Maximum static pressure head	87 psi (600 kPa)
Max. fuel inlet temperature	131°F (55° C)

Fuel Consumption Gal/Hr (L/Hr.)

Power Rating				
Speed	Standby	Prime	75%	50%
60Hz	28.1 (106.4)	25.8 (97.5)	21 (79.4)	n/a

Lubrication system

Lubricating oil capacity total system	10.6 gal (40 L)
Maximum sump capacity	10.1 gal (38 L)
Minimum sump capacity	8.6 gal (32.5 L)
Maximum engine operating angles	
Front up, front down, right side or left side	7°

Lubricating oil pressure

Oil flow at 1800 rev/min	45.4 gal/min (172 l/min)
At maximum no-load speed	52 psi (358 kPa)
Oil temperature (continuous operation)	235° F (113° C)
Oil consumption at full load as a % of fuel consumption	0.1%

Electrical system

Type	24 volt negative earth
Alternator type	22SI
Alternator voltage	24V
Alternator output	70A
Starter motor type	39MT
Starter motor voltage	24V
Starter motor power	10.5 hp (7.8 kW)
Number of teeth on flywheel	113
Number of teeth on starter pinion	11
Minimum cranking speed	106 rev/min

Induction system

Maximum air intake restriction	
Clean filter	0.36 psi (2.5 kPa)
dirty filter	0.93 psi (6.4 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**

Optional Accessories

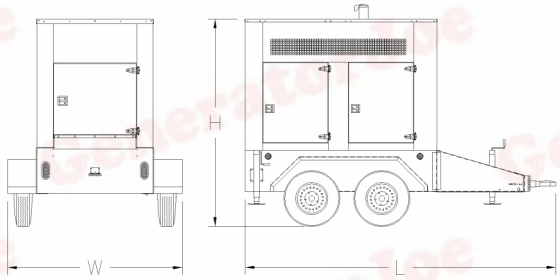
- ☐ Sound Attenuated Enclosure
- ☐ Output Power Cable
- ☐ Line Circuit Breaker
- ☐ Y-YY-ZZ Mult-voltage selector switch
- ☐ 20 Amp 120 VAC GFI receptacle
- ☐ 20 Amp 120 VAC GFI & 30 Amp 120/240 VAC twist lock receptacle
- ☐ 30A 120 VAC RV receptacle
- ☐ 400A Cam-Loks
- ☐ 4/0 Diesel Locomotive cable
-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

Detailed Description of Trailer

These trailers are equipped with triple 7000 pound axles, integral DOT rated 500 gallon fuel tank, electric brakes with safety disconnect and 7 wire connector, spring 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.: 256 in. x 97 in. x 140 in.
Weight (Dry): 13,455 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.

5 YEAR | 5,000 HOUR - GENSET WARRANTY
BEST IN THE INDUSTRY
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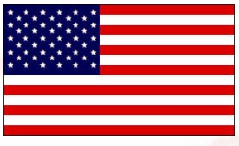

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GSA CONTRACTOR

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