



GeneratorJoe®



Made in the USA!



Captain Series Model: CA20 & CA20-3

Ratings Diesel

Single and/or Three Phase Available

Standby:	kW	60Hz 23.7	50 Hz 19.7
	kVA	30.1	25.0
Prime:	kW	20.0	16.6
	kVA	25.4	21.1

FEATURES:

- ◇ US EPA Tier 4 Final emissions certified & California CARB certified emissions
- ◇ Engine mounted diesel oxidation catalyst (DOC)
- ◇ Available in Single or 3-phase models
- ◇ Available in 50 Hz, 60 Hz, or 400 Hz
- ◇ 1800 RPM operation for long life
- ◇ Brushless generator with automatic voltage regulator
- ◇ Main line commercial grade circuit breaker
- ◇ Powder coated lightweight aluminum enclosure with sound attenuation
- ◇ Heavy duty aluminum radiator with pusher fan and guards
- ◇ Heavy duty dry type air cleaner
- ◇ Spin on 2-micron fuel filter
- ◇ Fuel / Water Separator standard
- ◇ 12VDC starting motor and a 50A 12VDC alternator
- ◇ Safety shutdowns for high water temp, low oil pressure, & low coolant
- ◇ Factory Load Tested Prior to Shipment
- ◇ Service reminders for air and fuel filters
- ◇ Advanced PTG series electronic controller with information display
- ◇ Convenient single side service
- ◇ 12 VDC fuel pump with bulkheads for easy connection
- ◇ 4 point mounting system with vibration isolators
- ◇ Air Intake from bottom
- ◇ Customized to your specifications

Generator				Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
Newage	277/480	3	60	23.7 / 30.1	49.4	20 / 25.4	41.7
	139/240	3	60	23.7 / 30.1	98.8	20 / 25.4	83.3
	254/440	3	60	23.7 / 30.1	53.9	20 / 25.4	45.5
	127/220	3	60	23.7 / 30.1	107.8	20 / 25.4	90.9
	240/416	3	60	23.7 / 30.1	57.0	20 / 25.4	48.1
	120/208	3	60	23.7 / 30.1	114.0	20 / 25.4	96.2
	120/240	3	60	23.7 / 30.1	98.8	20 / 25.4	83.3
	219/380	3	60	23.7 / 30.1	62.4	20 / 25.4	52.6
	120/240	1	60	23.7 / 23.7	98.8	20 / 20	83.3

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

Engine Application Data

ENGINE SPECIFICATIONS

ENGINE BRAND	Isuzu
ENGINE MODEL	4LE
ENGINE TYPE	Vertical, Liquid-Cooled, 4 Cylinder Diesel
NUMBER OF CYLINDERS	4
BORE & STROKE	<i>mm (in)</i> 87 x 92.4 (3.43 x 3.64)
TOTAL DISPLACEMENT	<i>L (in³)</i> 2.197 (134.1)
COMBUSTION TYPE	Naturally Aspirated
ASPIRATION	Turbo Charged with Charge Air Cooler
LUBRICANT	API Service Class CJ-4 SAE or JASO DH-2
STARTING MOTOR	12V, 2.0 kW
CHARGING ALTERNATOR	12V, 50A
EXHAUST AFTERTREATMENT	Diesel Oxidizing Catalyst (DOC)
OIL CHANGE INTERVAL	250 Hours

GENERATOR SPECIFICATIONS

OUTPUT VOLTAGE	120/240 VAC 1 phase or 120/240, 120/208 or 277/480 VAC 3 phase
POWER OUTPUT	20,000 Watts Prime
AMPERAGE	See Chart on Page 1
FUEL CONSUMPTION	2.0 GPH @ Full Load 1.0 GPH @ Half Load
WEIGHT	1095 lbs.



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Control Panel



STATE OF THE ART CONTROL

GeneratorJoe's advanced new PTG410 controller provides the ultimate control and protection. The controller provides manual and remote starting capability, as well as, available auto start on low battery.

Automatic shutdowns and warnings help prevent damage in the event problem is encountered. In the unlikely event a shutdown occurs, the PTG410's J1939 compatibility, ability to display J1939 Diagnostic Trouble Codes, and 150 Event Log will make troubleshooting easy.

The PTG410, additionally, provides metering and instrumentation for the engine and generator. Capable of displaying Oil Pressure, Engine

Temperature, Engine Hours, RPM, Battery Voltage, A/C Voltage and A/C Amperage; the PTG410 gives you the information you want with the press of a button. Furthermore, the PTG410 is UL Recognized and NFPA 110 compatible.

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

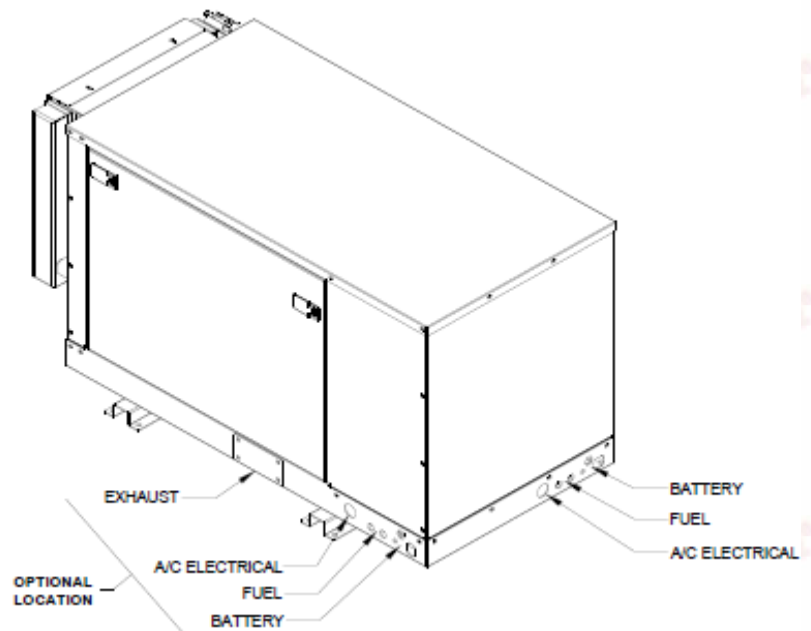
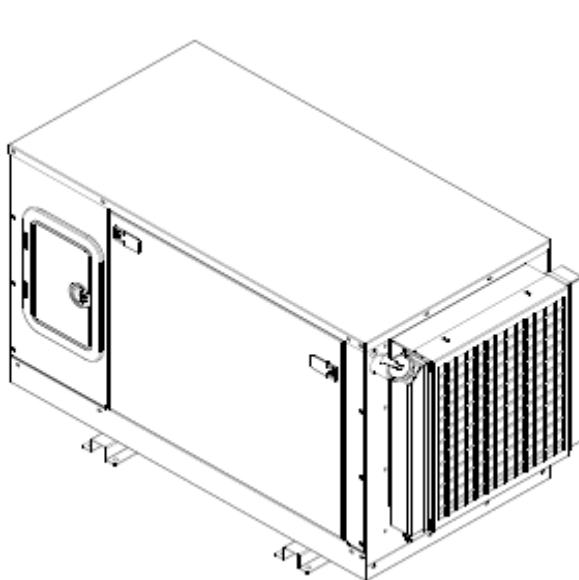
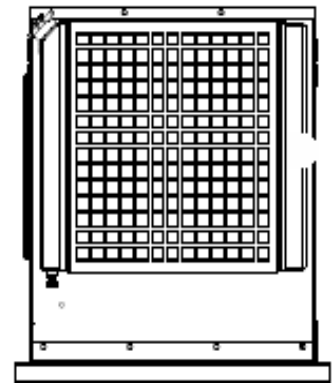
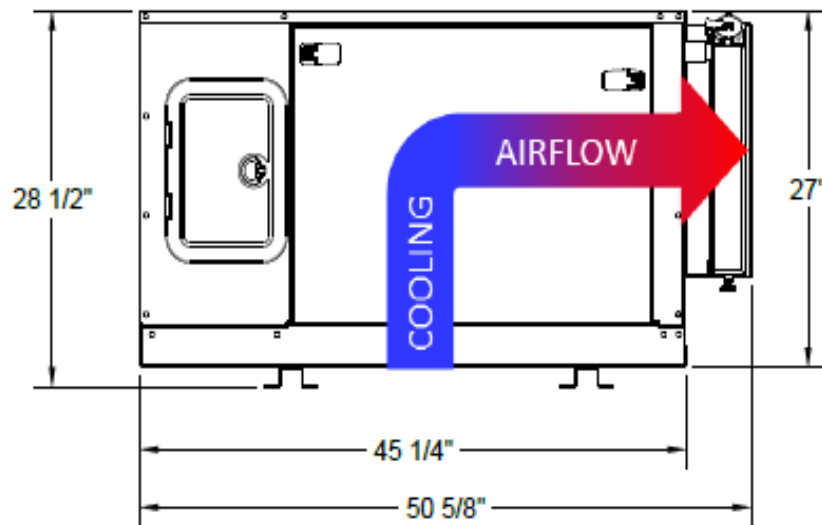
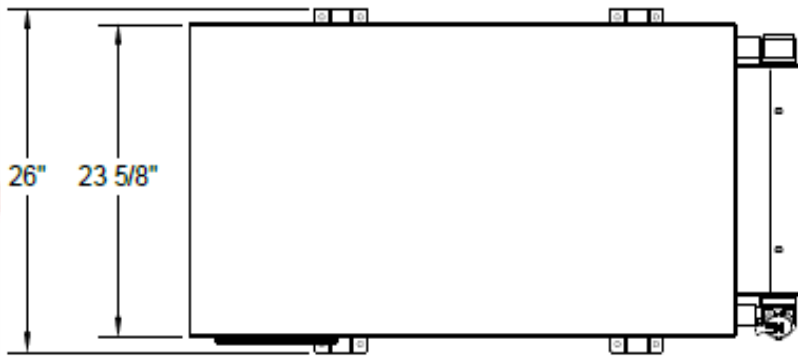
The insulation system is class H.

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.

Generator Controller Options



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Standard Features and Optional Accessories

Standard Features

- EPA Certified Tier 4 Final Emissions
- Heavy duty steel base
- Brushless alternator
- 4 Point Mounting W/Vibration isolators
- Aluminum Enclosure
- Engine Mounted Diesel Oxidation Catalyst (DOC)
- Commercial Grade Circuit Breaker
- Single Side Service
- 12 VDC Fuel pump
- Heavy duty air cleaner
- Service reminders for filters
- Fuel/Water Separator
- Oil drain valve with extension
- Governor
- Safety sensors & shutdowns
- Owners manual
- 2 Year, 3000 Hour Warranty

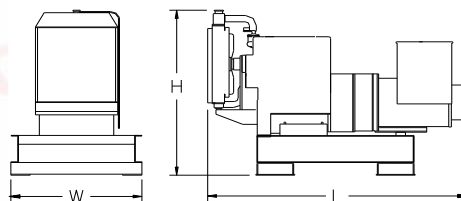
Optional Accessories

- Single or 3 phase, 60, 50 or 400 Hertz.
- Deluxe Generator Controls, Full Gauges, Auto Start
- Remote panel w/start, stop & hour meter
- Deluxe Remote Panel w/start, stop & hour Meter, Coolant Temp & Oil Pressure
- Remote Panel Wiring Harnesses
- Emergency Stop Mushroom Buttons & Wiring Harnesses
- Oil Pan Heater
- Coolant Heater
- Low Profile Reduced Height Package
- Remote Radiator Packages
- Remote Battery
- Battery Charger
- Battery Heaters
- Customized to Your Specifications

Gross Weights and Dimensions

OVERALL SIZE, L x W x H, in.: 50 in. x 27 in. x 33 in.
WEIGHT (WET): 1,040 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.



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A small business owned by service a connected disabled veteran.

Cage 1U5V7 - TIN/EIN #943026355 - Duns #054590203



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