

EPA Certified / Stationary Emergency

OUTPUT POWER OPTIONS					STANDBY RATING		sKVA
Make	Voltage	Alternator	Phase	Hertz	kW/kVA	Amps	30% Voltage Dip
Marathon	600	433PSL6248	3	60	300/375	361	1380
	277/480	432CSL6212	3	60	300/375	452	943
	120/208	432CSL6212	3	60	280/350	973	708
	120/240	432CSL6212	3	60	280/350	843	708
	120/240	432CSL6212	1	60	201/201	838	250
Marathon	277/480	433CSL6216	3	60	310/388	467	1424
	120/208	433CSL6216	3	60	310/388	1077	1069
	120/240	433CSL6216	3	60	310/388	933	1069
	120/240	433CSL6216	1	60	241/241	1004	430
Stamford	600	S4L1S-E4-17	3	60	300/375	361	1135
	277/480	S4L1D-E41-311	3	60	300/375	452	1150
	120/208	S4L1D-E41-311	3	60	300/375	1042	855
	120/240	S4L1D-E41-311	3	60	300/375	903	855



Engine Data

Manufacturer	Perkins
Model	1706D-E93TAG2
Aspiration	TCAC
EPA Tier	3
Charge Air Cooling System	Air-to-Air
Arrangement	Vertical Inline, 4-Cycle
Firing Order	1-5-3-6-2-4
Displacement: L (in. ³)	9.3 (567.52)
Bore: mm (in.)	115.00 (4.53)
Stroke: mm (in.)	149.00 (5.87)
Compression Ratio	16.5:1
BMEP: psi (kPa)	369.12 (2545.00)
Net Horsepower	457.5
Rated RPM	1800
Governor	Isochronous
Speed Regulation	±0.25%

Engine Liquid Capacity

Oil System: qt. (L)	31.70 (30.00)
Cooling System Capacity: gal (L)	9.46 (35.80)

Engine Electrical

Electric Volts: DC	24
Cold Cranking Amps	1100
Battery(s) Required	2

Fuel System

Fuel Injection Type	Electronic
Fuel Pump Rate: gal/hr (L/hr)	126.80 (480.00)
Pump Pressure: in. H ₂ O (kPa)	3210.61 (800.00)
Max Suction Head: in. H ₂ O (kPa)	8.03 (2.00)
Max Static Pressure Head: ft (m)	8.20 (2.50)
Max Fuel Inlet Temp.: °F (°C)	176.00 (80.00)
Recommended Fuel	Low Sulfur Diesel

Air Requirements

Air Filter(s) Type	Dry
Combustion Air Flow: CFM (m ³ /min)	951.03 (26.93)
Cooling Fan Air Flow: CFM (m ³ /min)	17021.69 (482.00)
Maximum Air Intake Restriction	
Clean: in. H ₂ O (kPa)	14.85 (3.70)
Dirty: in. H ₂ O (kPa)	24.88 (6.20)

Exhaust System

Gas Temperature: °F (°C)	959.5 (515.3)
Gas Flow: CFM (m ³ /min)	2433.2 (68.9)
Max Exhaust Back Pressure: in. H ₂ O (kPa)	40.13 (10.00)

Sound Level

Open Unit Without Exhaust: dBA 3.2 ft (1M)	115.8
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Filters and Quantity

Air Cleaner Quantity	1
Oil Filter(s) Quantity	1
Fuel Filter(s) Quantity	2

Fuel Consumption

At 100% of Power Rating: gal/hr (L/hr)	20.05 (75.88)
At 75% of Power Rating: gal/hr (L/hr)	15.17 (57.44)
At 50% of Power Rating: gal/hr (L/hr)	10.16 (38.47)
At 25% of Power Rating: gal/hr (L/hr)	5.48 (20.74)

Cooling System

Rejection to Charge Cooler: kW (BTUM)	105.7 (6010.5)
Rejection to Coolant & Oil: kW (BTUM)	135.7 (7717.7)
Coolant Flow: gal/min (L/min)	87.2 (330.0)

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 25°C (77°F)

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor.

125° RATINGS: 125° 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.

105° RATINGS: 105° 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.

Alternator Data

Manufacturer	Marathon	
Type	PMG	
Insulation NEMA Rise/Temp	NEMA N/125°C	
Hertz	60	
Phase	3	
RPM	1800	
Leads	12	
Amortisseur Windings	Full	
CFM Cooling Required	1020	
Voltage Regulator	DVR2000E+	PM500
Sensing	Three Phase	Three Phase
Voltage Regulation	0.25%	0.25%

Features

- NEMA MG1-32, BS5000, and IEC 34-1 compliant; CE & CSA Certified and UL Listed
- Self-ventilated and drip proof construction
- Two-thirds pitch stator and skewed rotor
- Wet wound, epoxied field windings
- Designed to withstand overspeeds of up to 125%
- Hybrid analog/digital voltage regulator
- Under frequency protection
- Under frequency indication light
- Less than one cycle response time
- Over excitation protection
- Over excitation indication light
- Easy access front-panel adjustments
- Over voltage protection shutdown
- Analog input for paralleling

Alternator Data

Manufacturer	Stamford	
Type	PMG	
Insulation NEMA Rise/Temp	NEMA H/125°C	
Hertz	60	
Phase	3	
RPM	1800	
Leads	12	
Amortisseur Windings	Full	
CFM Cooling Required	2100	
Voltage Regulator	MX341	MX321
Sensing	Single Phase	Three Phase
Voltage Regulation	1.0%	0.50%

Features

- BS EN 60034, BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, and AS1359 complaint
- IP23 enclosure
- Dynamically balanced to exceed BS6861:Part 1 Grade 2.5 vibration standard
- Quality assurance to BS EN ISO 9001
- Self-ventilated and
- Drip proof construction
- Two-thirds pitch stator and skewed rotor
- Heavy duty bearings
- Fully guarded
- Overexcitation protection
- Under frequency protection
- Analog input
- Overvoltage protection
- Paralleling compatible



DGC2020 Digital Controller

- Integrated engine-genset control, protection, and metering
- Microprocessor allows for exact measurement, setpoint adjustment, and timing functions
- Front panel 3 position controls and indicators enable quick and simple operation
- Emergency stop push button and an Alarm Horn with silence button
- A wide temperature-range liquid crystal display (LCD) with backlighting
- SAE J1939 Engine ECU communications
- Remote RS-485 communications for Optional RDP-110 Remote Annunciator
- 4 programmable contact inputs and 10 contact outputs (2 ADC rated)
- 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.
- Manual Override Keyswitch



Analog Controller with Emergency Bypass Key Switch

- Automatic CANBUS Engine Control
- Oil Pressure, Water Temperature, Battery Voltage and RPM Gauges
- Automatic Gauge Zeroing on Shutdown
- AC Voltage, Frequency, Percent of Load, and Run-Time Metering
- 3-Position Auto-Off-Manual Control Switch
- LED Status Lights: Low Oil Pressure, High Temperature, Overcrank, Overspeed, & Engine Start



Standard Features:

Warranty

2 Year Standard
5 Year Comprehensive

- Heavy Duty Steel Base
- Vibration Isolators
- Oil Drain Valve with Extension
- Battery Rack & Cables
- High Ambient Unit Mounted Radiator
- Battery Charging Alternator
- Factory Powder Coating
- Factory Test
- Owner's Manual

Controller Options

DGC-2020HD Controller
Fiber Optic Ethernet (DGC-2020HD)
RS-232 Port & Generator Protection (DGC-2020)
Flush or Surface Mount Remote Annunciator
Remote Mount Break Glass E-Stop Switch

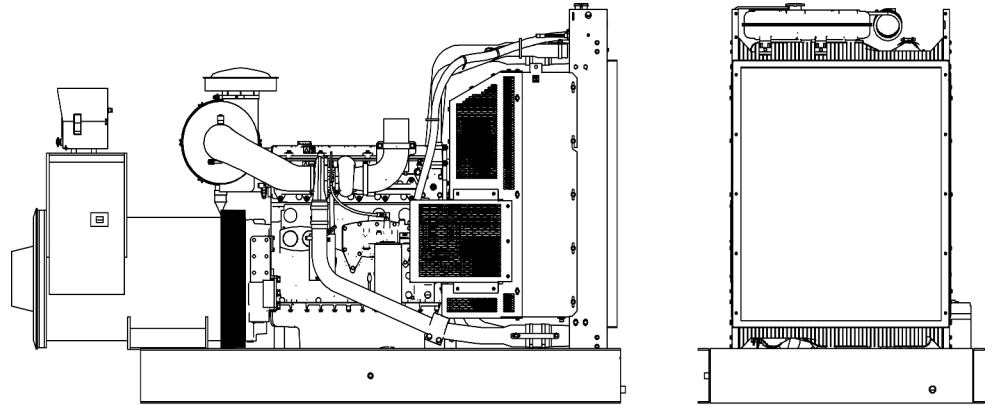
Miscellaneous Options:

- Battery Charger
- Coolant Drain Kit
- Block Heater
- Line Circuit Breaker
- Pad Type Battery Heater
- Battery Heater Blanket w/Thermostat
- Oil Pan Heater
- Generator Strip Heater

Open Unit

Options:

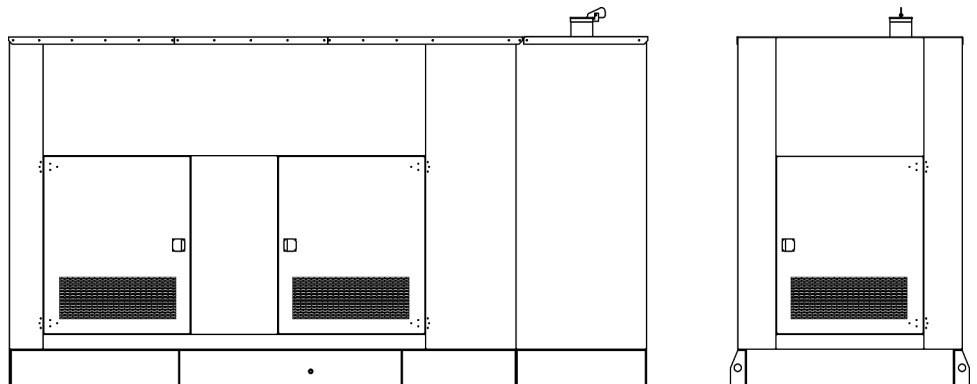
- Radiator Duct Flange
- Flex Exhaust
- Critical Silencer
- Sub-Base Fuel Tank



Standard Enclosed Unit

Options:

- Sound Attenuated Enclosure
- Load Center, Lights & GFI Receptacle
- Sub-Base Fuel Tank



Note: The above drawings are provided for reference only and should not be used for planning installation.

Contact your local distributor for more information.