# **FA20**0



"Your Complete Generator Solution"



### **EPA Certified / Stationary Emergency**

	οι	JTPUT	POWER		sKVA
Voltage	Phase	Hertz	kW/kVA	Amps	30% Voltage Dip
120/240	1	60	200/200	833	370
Information on optional alternators available upon request.					

Overall Size: 98"L x 36"W x 79"H

Weight: 3,500 lbs.

# Standard Features:

Heavy Duty Steel Base Vibration Isolators **Battery Rack & Cables** High Ambient Unit Mounted Radiator 120V/1500W Water Jacket Heater 15 ft. Fuel Line Set Spark Arrestor Muffler

**Battery Charging Alternator** 5 Amp Battery Charger PMG Pilot Exciter Factory Test Prior to Shipment **Owner's Manual** 

# **Miscellaneous Options:**

Automatic Transfer Switch Fuel Tanks 150-1000 Gallons

## Warranty

2 Year Standard Limited



# 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, and Engine Start Impact-Resistant Polycarbonate Bezel and Epoxy Encapsulated

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 single-phase units are rated at 1.0 power factor.

STATIONARY EMERGENCY STANDBY: Applies 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.



#### **Engine Data**

Manufacturer	Perkins
Model	1106D-E70TAG5
Aspiration	Turbocharged
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)	7.0 (427.78)
Bore: mm (in.)	105.00 (4.13)
Stroke: mm (in.)	135.00 (5.32)
Compression Ratio	16.8:1
BMEP: psi (kPa)	324.03 (2234.10)
Net Horsepower	299.49
Rated RPM	1800
Governor	Isochronous
Speed Regulation	±0.76%

# **Engine Liquid Capacity**

Oil System: qt. (L)	18.49 (17.50)
Cooling System Capacity: gal (L)	5.55 (21.00)

#### **Engine Electrical**

Electric Volts: DC	12
Cold Cracking Amps	925
Battery(s) Required	1

#### **Exhaust System**

Gas Temperature: °F (°C)	1027.40 (553.00)
Gas Flow: CFM (m <sup>3</sup> /min)	1358.56 (38.47)
Max Exhaust Back Pressure: in. H <sub>2</sub> O (kPa)	40.13 (10.00)
Spark Arrestor Outlet Size: in. (mm)	5.0 (127.0)

#### **Alternator Data**

Manufacturer	Marathon
Туре	PMG
Insulation NEMA Rise/Temp	NEMA H/150°C
Hertz	60
Phase	1
RPM	1800
Leads	4
Amortisseur Windings	Full
CFM Cooling Required	1100
Voltage Regulator	PM500
Sensing	Single Phase
Voltage Regulation, No Load - Full Load	0.5%

#### **Air Requirements**

Air Filter(s) Type	Dry
Combustion Air Flow: CFM (m <sup>3</sup> /min)	653.32 (18.50)
Cooling Fan Air Flow: CFM (m³/min)	9963.0 (282.1)
Maximum Air Intake Restriction	
Clean: in. H <sub>2</sub> O (kPa)	16.05 (4.00)
Dirty: in. H <sub>2</sub> O (kPa)	32.11 (8.00)
Sound Level	
Open Unit Without Exhaust: dBA 3.2 ft (1M)	101.7
Filters and Quantity	
Air Cleaner Quantity	1
Oil Filter(s) Quantity	1
Fuel Filter(s) Quantity	2
Fuel Consumption	

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At 100% of Power Rating: gal/hr (L/hr)	14.37 (54.40)
At 75% of Power Rating: gal/hr (L/hr)	11.49 (43.50)
At 50% of Power Rating: gal/hr (L/hr)	7.79 (29.50)
At 25% of Power Rating: gal/hr (L/hr)	4.23 (16.00)

#### **Fuel System**

Fuel Injection Type	Electronic CRIN2
Fuel Pump Rate: gal/hr (L/hr)	104.6 (396.0)
Pump Pressure: in. H <sub>2</sub> O (kPa)	40.13 (10.00)
Recommended Fuel	Low Sulfur Diesel

#### **Cooling System**

Rejection to Charge Cooler: kW (BTUM)	47.4 (2695.6)
Rejection to Coolant: kW (BTUM)	91.9 (5226.3)
Coolant Flow: gal/min (L/min)	44.91 (170.00)

#### Alternator 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