# **TD100**





**EPA Certified / Stationary Emergency** 

| OUTPUT POWER OPTIONS |         |            | STANDBY<br>RATING |       | sKVA    |      |                 |
|----------------------|---------|------------|-------------------|-------|---------|------|-----------------|
| Make                 | Voltage | Alternator | Phase             | Hertz | kW/kVA  | Amps | 30% Voltage Dip |
| Stamford             | 600     | UCI274D17  | 3                 | 60    | 100/125 | 120  | 545             |
|                      | 277/480 | UCI274D311 | 3                 | 60    | 100/125 | 151  | 520             |
|                      | 120/208 | UCI274D311 | 3                 | 60    | 100/125 | 347  | 406             |
|                      | 120/240 | UCI274D311 | 3                 | 60    | 100/125 | 301  | 406             |
|                      | 120/240 | UCI274D311 | 1                 | 60    | 79/79   | 329  | 272             |
|                      | 120/240 | UCI274D06  | 1                 | 60    | 100/100 | 417  | 355             |
| Marathon             | 600     | 362PSL1636 | 3                 | 60    | 100/125 | 120  | 378             |
|                      | 277/480 | 362CSL1606 | 3                 | 60    | 100/125 | 151  | 378             |
|                      | 120/208 | 362CSL1606 | 3                 | 60    | 100/125 | 347  | 284             |
|                      | 120/240 | 362CSL1606 | 3                 | 60    | 100/125 | 301  | 284             |
|                      | 120/240 | 362CSL1606 | 1                 | 60    | 79/79   | 329  | 127             |
|                      | 120/240 | 363CSL1617 | 1                 | 60    | 100/100 | 417  | 310             |
| Marathon             | 277/480 | 363CSL1607 | 3                 | 60    | 100/125 | 151  | 473             |
|                      | 120/208 | 363CSL1607 | 3                 | 60    | 100/125 | 347  | 355             |
|                      | 120/240 | 363CSL1607 | 3                 | 60    | 100/125 | 301  | 355             |
|                      | 120/240 | 363CSL1607 | 1                 | 60    | 97/97   | 404  | 153             |

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# application and engineering data

# **Engine Data**

| Manufacturer              | Perkins                  |  |
|---------------------------|--------------------------|--|
| Model                     | 1104D-E44TAG2            |  |
| Aspiration                | Turbocharged             |  |
| EPA Tier                  | 3                        |  |
| Charge Air Cooling System | Air-to-Air               |  |
| Arrangement               | Vertical Inline, 4-Cycle |  |
| Firing Order              | 1-3-4-2                  |  |
| Displacement: L (in.³)    | 4.40 (268.50)            |  |
| Bore: mm (in.)            | 105.00 (4.13)            |  |
| Stroke: mm (in.)          | 127.00 (5.00)            |  |
| Compression Ratio         | 16.2:1                   |  |
| BMEP: psi (kPa)           | 256.86 (1771.00)         |  |
| Net Horsepower            | 148.74                   |  |
| Rated RPM                 | 1800                     |  |
| Governor                  | Isochronous              |  |
| Speed Regulation          | ±0.25%                   |  |

# **Engine Liquid Capacity**

| Oil System: qt. (L)       | 8.45 (8.00)  |
|---------------------------|--------------|
| Cooling Capacity: gal (L) | 4.49 (17.00) |

# **Engine Electrical**

| Electric Volts: DC  | 12  |  |
|---------------------|-----|--|
| Cold Cranking Amps  | 925 |  |
| Battery(s) Required | 1   |  |

### **Fuel System**

| Fuel Injection Type                   | Direct            |  |
|---------------------------------------|-------------------|--|
| Fuel Pump Rate: gal/hr (L/hr)         | 0.57 (2.20)       |  |
| Max Suction Head: in. H₂O (kPa)       | 68.23 (17.00)     |  |
| Max Pressure Head: in. H₂O (kPa)      | 40.13 (10.00)     |  |
| Max Supply Restriction: in. H₂O (kPa) | 160.53 (40.00)    |  |
| Max Return Restriction: in. H₂O (kPa) | 200.66 (50.00)    |  |
| Recommended Fuel                      | Low Sulfur Diesel |  |

## Air Requirements

| Air Filter(s) Type                             | Dry            |  |
|--|----------------|--|
| Combustion Air Flow: CFM (m <sup>3</sup> /min) | 300.18 (8.50)  |  |
| Maximum Air Intake Restriction                 |                |  |
| Clean: in. H₂O (kPa)                           | 20.07 (5.00)   |  |
| Dirty: in. H₂O (kPa)                           | 32.11 (8.00)   |  |
| Radiator Air Flow: CFM (m³/min)                | 7699.0 (218.0) |  |

# **Exhaust System**

| Gas Temperature: °F (°C)         | 942.8 (506.0) |
|----------------------------------|---------------|
| Gas Flow: CFM (m³/min)           | 706.3 (20.0)  |
| Max Back Pressure: in. H₂O (kPa) | 60.20 (15.00) |
| Exhaust Outlet Size: in. (mm)    | 2.52 (64.00)  |

# Sound Level

| Open Unit Without Exhaust: dBA 3.2 ft (1m)              | 105.5 |
|---|-------|
| Sound Attenuated Enclosure<br>Full Load: dBA 23 ft (7m) | 74.8  |

# **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) | 7.34 (27.77) |
|--|--------------|
| At 75% of Power Rating: gal/hr (L/hr)  | 5.82 (22.04) |
| At 50% of Power Rating: gal/hr (L/hr)  | 4.25 (16.07) |
| At 25% of Power Rating: gal/hr (L/hr)  | N/A          |

# **Cooling System**

| Rejection to Charge Cooler: kW (BTUM) | 18.0 (1023.6) |
|---------------------------------------|---------------|
| Rejection to Coolant & Oil: kW (BTUM) | 61.0 (3469.0) |
| Coolant Flow: gal/min (L/min)         | 44.7 (169.0)  |

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.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 Stamford |               |             |
|-----------------------|---------------|-------------|
| Туре                  | PMG           |             |
| Insulation Class      | ss NEMA H     |             |
| Temperature Rise      | 125°C Standby |             |
| Hertz                 | 60            |             |
| RPM                   | 1800          |             |
| Amortisseur Windings  | Full          |             |
| CFM Cooling Required  | 1308          |             |
| Voltage Regulator     | MX341 MX321   |             |
| Sensing               | Single Phase  | Three Phase |
| Voltage Regulation    | 1.0%          | 0.50%       |

# **Alternator Data**

| Manufacturer         | Marathon      |             |
|----------------------|---------------|-------------|
| Туре                 | PMG           |             |
| Insulation Class     | NEMA N        |             |
| Temperature Rise     | 125°C Standby |             |
| Hertz                | 60            |             |
| RPM                  | 1800          |             |
| Amortisseur Windings | Full          |             |
| CFM Cooling Required | 700           |             |
| Voltage Regulator    | DVR2400       | PM500       |
| Sensing              | Three Phase   | Three Phase |
| Voltage Regulation   | 0.25%         | 0.25%       |

# **Control Panels**



DeepSea 7310 MKII Simultaneous Use of RS232 & RS485 Modbus RTU Support Fully Configurable Using USB, RS232 & RS485 IP65 Rating 6 Programmable Inputs & 8 Outputs UL & cUL Listed and CE Certified



Basler DGC2020 SAE J1939 Engine ECU Communications 4 Programmable Inputs & 10 Outputs Modbus Communications With RS485 UL Recognized, CSA & CE Certified IP 54 Front Panel Rating NFPA 110 Level 1 Compatible Manual Override Keyswitch DGC2020HD Variant Available

# <image>

Taylor Analog

Automatic CANBUS Engine Control Gauge Zeroing on Shutdown Auto-Off-Manual Control Switch Oil Pressure, Water Temperature, Battery Voltage and RPM Gauges AC Voltage, Frequency, Percent of Load, and Run-Time Metering LED Status Lights

#### 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

#### **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



# standard features and options

# **Standard Features:**

**Generator Strip Heater** 

Spring Isolators

Line Circuit Breaker

Warranty

| 2 Year | Standard      |
|--------|---------------|
| 5 Year | Comprehensive |

Heavy Duty Steel Base Vibration Isolators Oil Drain Valve with Extension Coolant Drain Kit High Ambient Unit Mounted Radiator Battery Charger Block Heater Factory Powder Coating Factory Load Test Owner's Manual

# **Controller Options**

# Miscellaneous Options:

DGC2020HD Controller

Fiber Optic Ethernet (DGC2020HD)

RS-232 Port & Generator Protection (DGC2020)

Flush or Surface Mount Remote Annunciator

Remote Mount Break Glass E-Stop Switch

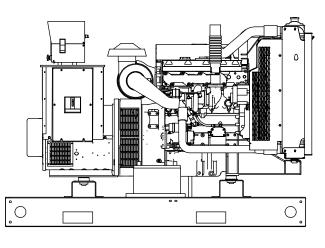
# Open Unit

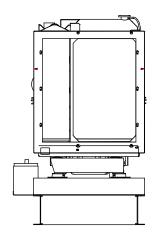
### **Options**:

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

Overall Size: 81"L x 36"W x 57"H Approximate Weight: 2,350 lbs.

Note: Dimensions and weights reflect standard open unit with no options and are subject to change.





Pad Type Battery Heater

**Battery Heater Blanket** 

**Oil Pan Heater** 

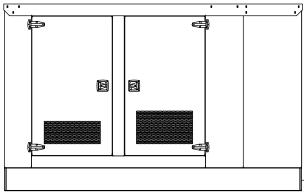
# Standard Enclosed Unit

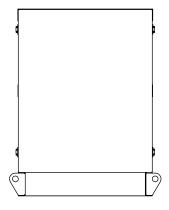
#### Options:

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

Overall Size: 102"L x 46"W x 64"H Approximate Weight: 3,200 lbs.

Note: Dimensions and weights reflect standard enclosed unit with no options and are subject to change.





*Note: The above drawings are provided for reference only and should not be used for planning installation. Contact your local distributor for more information.*