# TD1600

TAYLOR POWER SYSTEMS


**EPA Certified / Stationary Emergency**

| OUTPUT POWER OPTIONS | | | | | STANDBY RATING | | sKVA |
|---|---|---|---|---|---|---|---|
| Make | Voltage | Alternator | Phase | Hertz | kW/kVA | Amps | 30% Voltage Dip |
| Stamford | 600 | S7L1D-D4-07 | 3 | 60 | 1600/2000 | 1927 | 3900 |
| | 277/480 | S7L1D-D4-312 | 3 | 60 | 1600/2000 | 2408 | 4100 |
| Marathon | 600 | 743RSS4290 | 3 | 60 | 1600/2000 | 1927 | 4900 |
| | 277/480 | 743RSL4052 | 3 | 60 | 1600/2000 | 2408 | 5700 |
| | 120/208 | 743RSL4052 | 3 | 60 | 1600/2000 | 2779 | 4675 |
| | 120/240 | 743RSL4052 | 3 | 60 | 1480/1850 | 2814 | 4675 |
| Marathon | 277/480 | 744RSL4054 | 3 | 60 | 1600/2000 | 2408 | 6600 |
| | 120/208 | 744RSL4054 | 3 | 60 | 1600/2000 | 2779 | 5800 |
| | 120/240 | 744RSL4054 | 3 | 60 | 1590/1988 | 3023 | 5800 |

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## Engine Data

| | |
|---|---|
| Manufacturer | Mitsubishi |
| Model | S16R-Y2PTAW-1 |
| Aspiration | Turbocharged |
| EPA Tier | 2 |
| Charge Air Cooling System | Inter-Cooler |
| Arrangement | V-16, 4-Cycle |
| Displacement: L (in.³) | 65.37 (3989.00) |
| Bore: mm (in.) | 170.00 (6.69) |
| Stroke: mm (in.) | 180.00 (7.09) |
| Compression Ratio | 14.5:1 |
| BMEP: psi (kPa) | 259.0 (1785.7) |
| Horsepower | 2279 |
| Rated RPM | 1800 |
| Governor | Isochronous |
| Speed Regulation | ±0.25% |

## Engine Liquid Capacity

| | |
|---|---|
| Oil System: qt. (L) | 243 (230) |
| Cooling Capacity: gal (L) | 44.9 (170.0) |

## Engine Electrical

| | |
|---|---|
| Electric Volts: DC | 24 |
| Cold Cranking Amps | 1100 |
| Battery(s) Required | 4 |

## Fuel System

| | |
|---|---|
| Fuel Injection Type | Mitsubishi PS8 |
| Max Suction Head: in. $H_2O$ (kPa) | 40.83 (20.16) |
| Recommended Fuel | Low Sulfur Diesel |

## Air Requirements

| | |
|---|---|
| Air Filter(s) Type | Dry |
| Combustion Air Flow: CFM (m³/min) | 5,932 (168) |
| Maximum Air Intake Restriction | |
| Clean: in. $H_2O$ (kPa) | 15.70 (3.91) |
| Dirty: in. $H_2O$ (kPa) | 25.00 (6.23) |
| Radiator Air Flow: CFM (m³/min) | 75,008 (2124) |

## Exhaust System

| | |
|---|---|
| Gas Flow: CFM (m³/min) | 15,642 (443) |
| Max Back Pressure: in. $H_2O$ (kPa) | 23.60 (5.88) |

## Sound Level

| | |
|---|---|
| Open Unit Without Exhaust: dBA 3.2 ft (1M) | 112 |

## Filters and Quantity

| | |
|---|---|
| Air Cleaner Quantity | 4 |
| Oil Filter(s) Quantity | 2 |
| Fuel Filter(s) Quantity | 2 |

## Fuel Consumption

| | |
|---|---|
| At 100% of Power Rating: gal/hr (L/hr) | 128.7 (487.0) |
| At 75% of Power Rating: gal/hr (L/hr) | 94.1 (356.0) |
| At 50% of Power Rating: gal/hr (L/hr) | 63.7 (241.0) |
| At 25% of Power Rating: gal/hr (L/hr) | 35.1 (133.0) |

## Cooling System

| | |
|---|---|
| Heat Rejection to Air Cooler: kW (BTUM) | 636 (36,167) |
| Heat Rejection to Coolant: kW (BTUM) | 636 (36,167) |
| Heat Rejection to Ambient: kW (BTUM) | 147 (8,346) |
| Coolant Flow: gal/min (L/min) | 489 (1850) |

**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 and controller data

## Alternator Data

| | | |
|---|---|---|
| Manufacturer | Stamford | |
| Type | PMG | |
| Insulation Class | NEMA H | |
| Temperature Rise | 125°C Standby | |
| Hertz | 60 | |
| RPM | 1800 | |
| Amortisseur Windings | Full | |
| CFM Cooling Required | 7300 | |
| 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

## Alternator Data

| | | |
|---|---|---|
| Manufacturer | Marathon | |
| Type | PMG | |
| Insulation Class | NEMA N | |
| Temperature Rise | 125°C Standby | |
| Hertz | 60 | |
| RPM | 1800 | |
| Amortisseur Windings | Full | |
| CFM Cooling Required | 3430 | |
| Voltage Regulator | DVR2400 | PM500 |
| Sensing | Three Phase | Three Phase |
| Voltage Regulation | 0.25% | 0.25% |

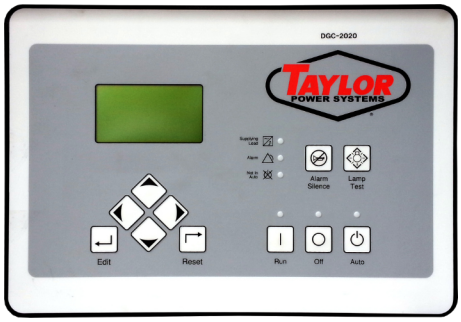
## Features

- 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

## 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


### 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

# standard features and options

## Warranty

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

## Standard Features:

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

## Controller 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 |

## Miscellaneous Options:

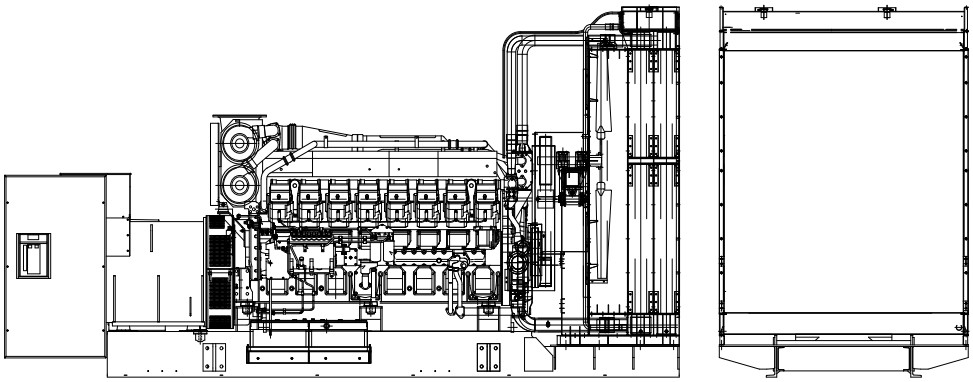
| | |
|---|---|
| Generator Strip Heater | Pad Type Battery Heater |
| Spring Isolators | Battery Heater Blanket |
| Line Circuit Breaker | Oil Pan Heater |

## Open Unit

**Options**:
- Radiator Duct Flange
- Critical Silencer
- Sub-Base Fuel Tank

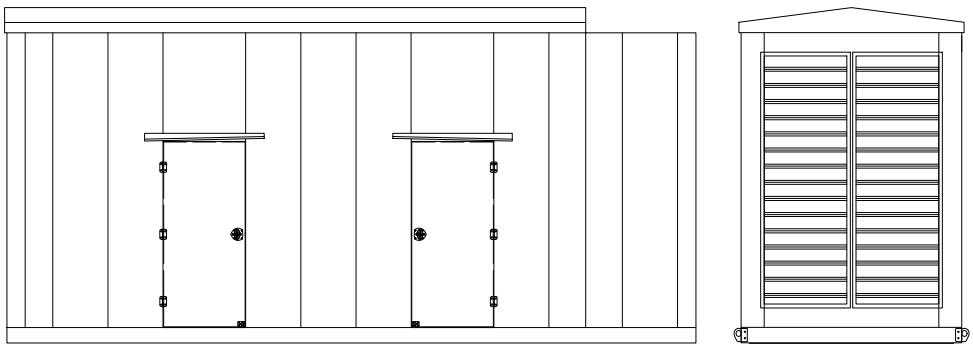
Overall Size: 204"L x 88"W x 105"H
Approximate Weight: 26,800 lbs.

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



## 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.***