



# TD2500D

## Ratings Range — 60 Hertz Operation

Standby: 2500 kW  
3125 kVA

Throughout its 80 year history, **Taylor Machine Works**, which manufactures heavy machinery for industries worldwide, has maintained a reputation of having unparalleled products with service to match. **Taylor Power Systems** is no different!

In the early 1980's Taylor Machine Works created Taylor Power Systems to distribute industrial engines and manufacture generator sets offering diesel powered 9 kW to 3250 kW and gaseous powered 30 kW to 425 kW. Taylor Power Systems provides quality standby and prime generator sets in stationary or mobile configurations for a wide variety of applications for example the Healthcare and Telecommunications Industries, Public Utilities, Federal, State and Local Government agencies, Educational and Financial Institutions as well as Agricultural.

Taylor Power Systems is your 21st Century Power Source!

- Single source responsibility for the generator set and accessories.
- Prototype and production tested to insure one step load acceptance per NFPA 110.
- Two year limited warranty on generator sets and accessories. Extended warranties also available.
- Unit conforms to CSA, NEMA, EGSA, ANSI and other standards.
- Heavy duty 4 cycle industrial engine for reliability and fuel efficiency.
- Brushless rotating field generator with class H insulation.
- Heavy duty steel base
- Tier 2 EPA-Certified for Stationary Emergency Applications.

## Genset Ratings

Genset Model Number	Alternator	Voltage L-L	Phase	Hertz	130° Rise Standby Rating	
					kW / kVA	Amps
TD2500D	1020FDL1003	480V	3	60	2500/3125	3759
	1020FDM1210	4160V	3	60	2500/3125	434
	1030FDH1414	12470V	3	60	2500/3125	145
	1030FDH1414	13200V	3	60	2500/3125	137
	1030FDH1414	13800V	3	60	2500/3125	131

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).

# Application and Engineering Data

## Engine

Manufacturer	MTU
Model	20V 4000 G43 6 ECT
Type	4-Cycle
Arrangement	20-V
Displacement: L (in <sup>3</sup> )	95.4 (5,822)
Bore: cm (in)	17 (6.69)
Stroke: cm (in)	21 (8.27)
Compression Ratio	16.5:1
Rated RPM	1,800
Engine Governor	Electronic Isochronous (ADEC)
Maximum Power: kWm (bhp)	2,740 (3,673)
Speed Regulation	±0.25%
Air Cleaner	Dry

## Liquid Capacity (Lubrication)

Total Oil System: L (gal)	390 (103)
Engine Jacket Water Capacity: L (gal)	205 (54.2)
After Cooler Water Capacity: L (gal)	55 (14.5)
System Coolant Capacity: L (gal)	814 (215)

## Electrical

Electric Volts DC	24
Cold Cranking Amps Under -17.8° C (0° F)	3,000

## Fuel System

Fuel Supply Connection Size	1" NPT
Fuel Return Connection Size	1" NPT
Maximum Fuel Lift: m (ft)	1 (3)
Recommended Fuel	Diesel #2
Total Fuel Flow: L/hr (gal/hr)	1,620 (428)

## Fuel Consumption

At 100% of Power Rating: L/hr (gal/hr)	636 (168)
At 75% of Power Rating: L/hr (gal/hr)	507 (134)
At 50% of Power Rating: L/hr (gal/hr)	363 (96)

## Cooling Radiator System

Ambient Capacity of Radiator: °C (°F)	54 (129)
Maximum Restriction of Cooling Air, Intake, and Discharge Side of Rad: kPa (in H <sub>2</sub> O)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	1,567 (414)
After Cooler Pump Capacity: L/min (gpm)	567 (150)
Heat Rejection to Coolant: kW (BTUM)	940 (53,456)
Heat Rejection to After Cooler: kW (BTUM)	630 (35,827)
Heat Radiated to Ambient: kW (BTUM)	209 (11,895)

## Air Requirements

Aspirating: m <sup>3</sup> /min (SCFM)	225 (7,946)
Air Flow Required for Radiator Cooled Unit: m <sup>3</sup> /min (SCFM)	3,340 (117,959)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat for a Max of 25° F Rise: m <sup>3</sup> /min (SCFM)	764 (26,827)

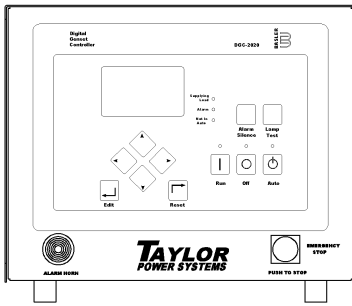
\*Air density = 1.184 kg/m<sup>3</sup> (0.0739 lbm/ft<sup>3</sup>)

## Exhaust System

Gas Temperature (Stack): °C (°F)	455 (851)
Gas Volume at Stack Temperature: m <sup>3</sup> /min (CFM)	540 (19,070)
Maximum Allowable Back Pressure: kPa (in H <sub>2</sub> O)	8.5 (34.1)

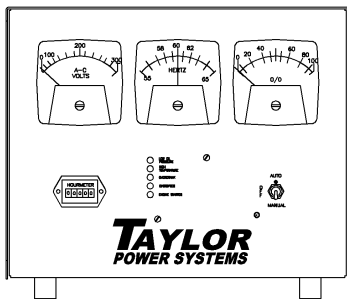


# Generator Controller Options



## Digital Control Panel

- 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
- Multilingual capability
- Remote RS-485 communications for Optional RDP-110 Remote Annunciator
- 4 programmable contact inputs and 10 contact outputs (2 A/c 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.



## Analog Controller

- Monitor AC voltage, AC frequency, percent of load and, run time/hour meter
- Overspeed, overcrank, low oil pressure, and high coolant temperature indicators
- Green LED indication of engine running
- Control switch for local and remote starting with 3 position run/off/remote switch
- Emergency by-pass key switch gauge
- Mechanical oil pressure gauge
- Coolant temperature gauge

# Alternator Specifications

<b>Manufacturer</b>	Marathon	<ul style="list-style-type: none"> <li>• NEMA MG1, IEEE, AND ANSI standards compliance for temperature and motor starting.</li> <li>• Sustained short-circuit current of the rated current for up to 10 seconds.</li> <li>• Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.</li> <li>• Self-ventilated and dripproof construction.</li> <li>• Superior voltage waveform from a two-thirds pitch stator and skewed rotor.</li> <li>• Linkboards</li> <li>• Optimized Electrical Design</li> <li>• Enhanced Ventilation</li> <li>• Fully Guarded</li> <li>• Heavy Duty Bearings</li> </ul>
<b>Type</b>	Ext. Voltage Regulated, Brushless	
<b>Gen Frame</b>	MAGNAMAX	
<b>Insulation</b>	NEMA	
<b>Material</b>	Class H	
<b>Temperature Rise</b>	130 °C, Standby	
<b>Hertz</b>	60	
<b>Phase</b>	3	
<b>RPM</b>	1800	
<b>Exciter</b>	Rotating	
<b># Leads</b>	6 Lead	
<b>PF</b>	0.8	
<b>Ambient</b>	40°C	
<b>Coupling Single Bearing</b>	Flexible	
<b>Amortisseur Windings</b>	Full	
<b>Cooling Air Volume</b>	7500 CFM	
<b>Peak Motor Starting</b>	30% Voltage Dip, 4625 skVA	
<b>Voltage Regulation no-load and full-load</b>	3 Phase Sensing 1/2%	



## STANDARD FEATURES

- Heavy Duty Steel Base
- Vibration Isolators
- Oil Drain Valve with Extension
- Battery Rack
- Battery Cables
- High Ambient Unit Mounted Radiator
- Battery Charging Alternator
- Factory Paint
- Factory Test Prior to Shipment
- 2 Year Warranty
- Owners Manual

## AVAILABLE ACCESSORIES

### OPEN UNIT

- Narrow Skid Base
- Radiator Duct Flange
- Ship Loose Flex Exhaust
- Ship Loose Critical Silencer

### ENCLOSED UNIT

- Wide Skid Base
- Standard Enclosure With Internal Silencer
- Sound Attenuated Enclosure With Silencer
- Load Center With Lights and GFI Receptacle
- Sub-Base Fuel Tank

### CONTROLLER

- DGC2020 Control Panel
- DGC2020 Control Panel with Modem
- DGC2020 with Generator Protection
- DGC2020 with Modem and Generator Protection
- Flush or Surface Mount Remote Annunciator
- Remote Mount Break Glass E-Stop Switch
- Analog Control Panel

## MISCELLANEOUS

- Flexible Fuel Lines
- Coolant Drain Kit
- Water Jacket Heater
- Oil Pan Heater
- Generator Strip Heater
- Battery
- Battery Charger
- Pad Type Battery Heater
- Battery Heater Blanket with Thermostat
- Line Circuit Breaker

## WARRANTY

- 3 Year Warranty
- 5 Year Warranty

## APPROVALS AND LISTINGS

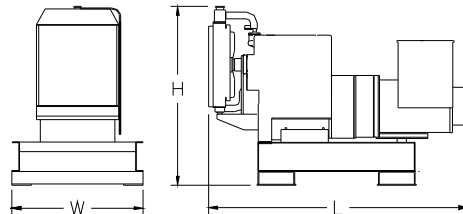
- UL Standard 2200

## WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H,: 301 in. x 115 in. x 131 in.

WEIGHT: 55,333 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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