

# **MODEL: TD2000**



Shown with optional equipment.

# Ratings Range — 60 Hertz Operation

Standby: kW 1590-2000

kVA 1988-2500

Prime: kW 1440-1820

kVA 1800-2275

# **FEATURES**

- 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 with integral vibration isolators.
- Tier 2 EPA-Certified for Stationary Emergency Applications.

# **GEN SET RATINGS**

Genset Model Number	Alternator	Voltage L-N / L-L	Phase	Hertz	130° Rise Standby Rating		105° Rise Prime Rating	
					kW/kVA	Amps	kW / kVA	Amps
TD2000	744RSL4054	220/380	3	60	1590/1988	3020	1440/1800	2735
		240/416	3	60	1840/2300	3192	1680/2100	2915
		277/480	3	60	2000/2500	3007	1820/2275	2736

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 in 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**

**Basic Technical Data Lubrication System** Manufacturer Mitsubishi Lubricating oil capacity total Model S16R-Y2PTAW2-1 system Number of cylinders 16 Maximum sump capacity 52.8 gal (200.0 L) Cylinder arrangement Minimum sump capacity Cycle Four stroke Induction system Turbocharged intercooler Maximum engine operating angles (front up, front down, Compression ratio 14.0:1 right side or left side) **Bore** 6.69 in (170 mm) Stroke 7.09 in (180 mm) Cubic capacity 3989 cu in (65.4 L) **Lubricating Oil Pressure** Direction of rotation Oil Temperature (continuous operation) Firing order Oil Temperature (maximum Governor type Isochronous intermittent operation) Gross engine power 2923 bhp (2181 kWm) Electropak net engine power **Electrical System** Brake mean effective Type pressure Alternator type Engine coolant flow (against 489 gpm (1850.9 Lpm) **Alternator Voltage** 24 V 5 psi (35 kPa) restriction) **Alternator Output** 30 A Starter motor type Cooling fan air flow (29 psi 102700 scfm (2909 cmm) Starter motor voltage 24 V (200 kPa) external Starter motor power restriction) Combustion air flow (at Minimum cranking speed 7274 cfm (206 cmm) rated speed) Exhaust gas flow (max) 19209 cfm (544 cmm) Exhaust gas mass flow **Induction System** (max) Maximum air intake restriction Exhaust gas temperature in 987° F (516° C) Clean filter manifold (max) Dirty filter Boost pressure ratio Air filter type Overall thermal efficiency (net) Duct allowance with 50% glycol **Cooling System** Coolant **Total System Capacity** With radiator 673.0 qt (636.8 L) Without radiator 179.6 qt (169.9 L) **Coolant Pump Drive** Centrifugal Fuel System Coolant pump drive ratio Maximum top tank temperature n

Temperature rise across

Thermostat operation range Recommended coolant:

(rating dependent)

engine

Type of injection	
Fuel injection pump	Engine driver
Fuel atomizer	

#### **Fuel Lift Pump**

**Fuel Consumption** 

Max flow through customer filter	330.3 gph (1250.2 Lph)
Maximum suction head	3 ft (1 m)

		110% Load		
Exhaust System		100% Load	159.4 gph (603.3 Lph)	
Maximum back pressure	23.6 H2O (5.9 kPa)	75% Load	117.0 gph (442.8 Lph)	
Exhaust outlet size	13.39 in (340 mm) <sup>2</sup>	50% Load	80.8 gph (305.8 Lph)	

# **Generator Controller Options**





- Dashboard Style LCD Panel
- NFPA 110
- SAE J1939 ECU Communications
- Load Share Synch Features
- Metering, Data Trending, Alarms
- Engine Status Indicators
- Fuel Consumption
- CanBus, ModBus
- Ethernet Communications
- Remote Contacts Form C, RS 232/485
- Internet Bridge Module
- Internet Connection & Web Browser
- Remote Access & Control
- InteliMonitor Network Management
- SNMP, PC SCADA
- Site Overview & Statistic Settling
- Automatic Downloads, Report Writer
- Receive Emails or IM Text
- CAT 5e, RS232/485, RJ 45
- Ethernet or Dial Up Connection
- Fleet Scalability

# **Alternator Specifications**

Manufacturer Marathon

Ext. Voltage Regulated, Brushless Type

**Gen Frame MAGNAMAX** Insulation NEMA Material Class H

**Temperature Rise** 130 °C, Standby

Hertz 60 **Phase** 3 **RPM** 1800 **Exciter** Rotating

# Leads 12 Reconnectable or 4 Single Phase •

PF 8.0 40°C **Ambient Coupling Single Bearing** Flexible **Amortisseur Windings** Full **Cooling Air Volume** 250 CFM

**Peak Motor Starting** 35% Voltage Dip, 7000 kVA

Voltage Regulation no-load and full-load

3 Phase Sensing 1/2%

- NEMA MG1, IEEE, AND ANSI standards compliance for temperature and motor starting.
- Sustained short-circuit current of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator
- Self-ventilated and dripproof construction.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Linkboards
- Optimized Electrical Design
- **Enhanced Ventilation**
- **Fully Guarded**
- **Heavy Duty Bearings**

# 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

InteliLite Model IL-NT-MRS19

**Ethernet Bridge** 

Remote Annunciator

## **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

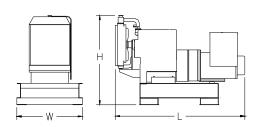
# **APPROVALS AND LISTINGS**

□ UL Standard 2200

# **WEIGHTS AND DIMENSIONS**

OVERALL SIZE, L x W x H,: 254 in. x 103 in. x 122 in. WEIGHT: 35000 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.

# **DISTRIBUTED BY:**

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