



# MODEL: TD1000



Shown with optional equipment.

## Ratings for 60 Hertz Operation

Standby:	kW	1000
	kVA	1250
Prime:	kW	900
	kVA	1125

## 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
TD1000	741RSL4045	240/480	3	60	1000/1250	1504	900/1125	1353
		230/460	3	60	1000/1250	1568	900/1125	1412
		220/440	3	60	1000/1250	1640	900/1125	1476
		208/416	3	60	1000/1250	1735	900/1125	1561
		190/380	3	60	840/1050	1595	756/945	1435

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-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

<b>Manufacturer</b>	Mitsubishi
<b>Model</b>	S12H-Y2PTAW-1
<b>Number of cylinders</b>	12
<b>Cylinder arrangement</b>	
<b>Cycle</b>	Four stroke
<b>Induction system</b>	Turbocharged intercooler
<b>Compression ratio</b>	14.5:1
<b>Bore</b>	5.91 in (150 mm)
<b>Stroke</b>	6.89 in (175 mm)
<b>Cubic capacity</b>	2265 cu in (37.1 L)
<b>Direction of rotation</b>	
<b>Firing order</b>	
<b>Governor type</b>	Isochronous
<b>Gross engine power</b>	
<b>Electropak net engine power</b>	

<b>Brake mean effective pressure</b>	
<b>Engine coolant flow (against 5 psi (35 kPa) restriction)</b>	383 gpm (1449.7 Lpm)
<b>Cooling fan air flow (29 psi (200 kPa) external restriction)</b>	50174 scfm (1421 cmm)
<b>Combustion air flow (at rated speed)</b>	3602 cfm (102 cmm)
<b>Exhaust gas flow (max)</b>	9534 cfm (270 cmm)
<b>Exhaust gas mass flow (max)</b>	
<b>Exhaust gas temperature in manifold (max)</b>	1015° F (532° C)
<b>Boost pressure ratio</b>	
<b>Overall thermal efficiency (net)</b>	

## Cooling System

<b>Coolant</b>	
<b>Total System Capacity</b>	
<b>With radiator</b>	424.0 qt (401.2 L)
<b>Without radiator</b>	105.7 qt (100.0 L)
<b>Coolant Pump Drive</b>	Centrifugal
<b>Coolant pump drive ratio</b>	
<b>Maximum top tank temperature</b>	
<b>Temperature rise across engine (rating dependent)</b>	
<b>Thermostat operation range</b>	
<b>Recommended coolant:</b>	

## Exhaust System

<b>Maximum back pressure</b>	23.6 H <sub>2</sub> O (5.9 kPa)
<b>Exhaust outlet size</b>	10.0 in (254 mm)

## Lubrication System

<b>Lubricating oil capacity total system</b>	
<b>Maximum sump capacity</b>	47.6 gal (180.0 L)
<b>Minimum sump capacity</b>	
<b>Maximum engine operating angles (front up, front down, right side or left side)</b>	

## Lubricating Oil Pressure

<b>Oil Temperature (continuous operation)</b>	
<b>Oil Temperature (maximum intermittent operation)</b>	

## Electrical System

<b>Type</b>	
<b>Alternator type</b>	
<b>Alternator Voltage</b>	24 V
<b>Alternator Output</b>	30 A
<b>Starter motor type</b>	
<b>Starter motor voltage</b>	24 V
<b>Starter motor power</b>	
<b>Minimum cranking speed</b>	

## Induction System

<b>Maximum air intake restriction</b>	
<b>Clean filter</b>	
<b>Dirty filter</b>	
<b>Air filter type</b>	

## Duct allowance with 50% glycol

1800 rev/min
127 °F (53 °C)
17.4 psi (120 kPa)
6,427 cfm (182 m <sup>3</sup> /min)

## Fuel System

<b>Type of injection</b>	
<b>Fuel injection pump</b>	Engine driven
<b>Fuel atomizer</b>	

## Fuel Lift Pump

<b>Max flow through customer filter</b>	462.4 gph (1750.2 Lph)
<b>Maximum suction head</b>	3 ft (1 m)

## Fuel Consumption

<b>110% Load</b>	
<b>100% Load</b>	77.9 gph (268.4 Lph)
<b>75% Load</b>	61.6 gph (233.2 Lph)
<b>50% Load</b>	42.3 gph (160.1 Lph)

## Generator Controller Options



- Dashboard Style LCD Panel
- 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
- IntelliMonitor 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

<b>Manufacturer</b>	Marathon
<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>	12 Reconnectable or 4 Single Phase
<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>	250 CFM
<b>Peak Motor Starting</b>	30% Voltage Dip, 2600 kVA
<b>Voltage Regulation no-load and full-load</b>	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 field.
- Self-ventilated and drip-proof 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

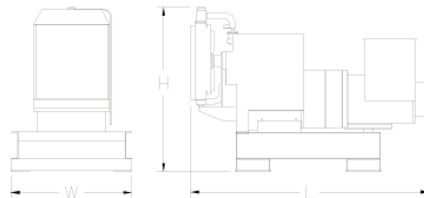
## APPROVALS AND LISTINGS

- UL Standard 2200

## WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H,: 195 in. x 86 in. x 102.5 in.  
WEIGHT: 17807 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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