



MODEL: TD400



Shown with optional equipment.

Ratings Range — 60 Hertz Operation

Standby:	kW	400
	kVA	500
Prime:	kW	360

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.
- Cooling system designed for ambient temperatures up to 50°C (122°F)
- EPA Tier 3 Certified for Stationary Emergency Standby use only.

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
TD400	433CSL6220	277/480	3	60	400/500	601	360/450	541
		139/240	3	60	400/500	1203	360/450	1083
		254/440	3	60	400/500	656	360/450	590
		127/220	3	60	400/500	1312	360/450	1181
		240/416	3	60	400/500	694	360/450	625
		120/208	3	60	400/500	1388	360/450	1249
		120/240	3	60	400/500	1203	360/450	1083
		219/380	3	60	367/459	697	330/412	626
		120/240	1	60	241/241	1004	220/220	917

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

Basic Technical Data		Lubrication System	
Manufacturer	Perkins	Lubricating oil capacity total system	10.6 gal (40 L)
Model	2206D-E13TAG3	Maximum sump capacity	10.1 gal (38 L)
Number of cylinders	6	Minimum sump capacity	8.6 gal (32.5 L)
Cylinder arrangement	Vertical in-line	Maximum engine operating angles (front up, front down, right side or left side)	7°
Cycle	Four stroke	Lubricating Oil Pressure	
Induction system	Turbocharged, air to air charge cooled	Oil Temperature (continuous operation)	235 °F (113 °C)
Compression ratio	16.3:1	Oil Temperature (maximum intermittent operation)	
Bore	5.12 in. (130 mm)	Electrical System	
Stroke	6.2 in. (157 mm)	Type	24 volt negative earth
Cubic capacity	762.8 cu in. (12.5 L)	Alternator type	22SI
Direction of rotation	Counter clockwise (from flywheel)	Alternator Voltage	24V
Firing order	1,5,3,6,2,4	Alternator Output	70A
Governor type	Electronic, Isochronous 0.25%	Starter motor type	39MT
Gross engine power	619 hp (461.7 kWb)	Starter motor voltage	24V
Electropak net engine power		Starter motor power	10.5 hp (7.8 kW)
Brake mean effective pressure	352 psi (2430 kPa)	Minimum cranking speed	106 rev/min
Engine coolant flow (against 5 psi (35 kPa) restriction)	1.75 gal/sec (6.7 L/sec)	Induction System	
Cooling fan air flow (29 psi (200 kPa) external restriction)	N/A	Maximum air intake restriction	
Combustion air flow (at rated speed)	1052 cfm (29.8 m ³ /min)	Clean filter	0.36 psi (2.5 kPa)
Exhaust gas flow (max)	3044 cfm (86.2 m ³ /min)	Dirty filter	0.93 psi (6.4 kPa)
Exhaust gas mass flow (max)		Air filter type	Paper element
Exhaust gas temperature in manifold (max)	1256 °F (680 °C)	Duct allowance with 50% glycol	
Boost pressure ratio		Fuel System	
Overall thermal efficiency (net)	39.3%	Type of injection	MEUI
Cooling System		Fuel injection pump	MEUI
Coolant		Fuel atomizer	
Total System Capacity	13.6 gal (51.4 L)	Fuel Lift Pump	
With radiator	N/A	Max flow through customer filter	158 gal/hr (600 L/hr)
Without radiator	N/A	Maximum suction head	30 kPa
Coolant Pump Drive	Gear	Fuel Consumption	
Coolant pump drive ratio	N/A	Standby Load	27.7 gal/hr (105 L/hr)
Maximum top tank temperature	219° F (104° C)	110% Load	26.9 gal/hr (102 L/hr)
Temperature rise across engine (rating dependent)	50° F (10 °C)	100% Load	24.8 gal/hr (94 L/hr)
Thermostat operation range	189-208° F (87-98 °C)	75% Load	19.3 gal/hr (73 L/hr)
Recommended coolant:	50% ethylene glycol with a corrosion inhibitor (BS 658 : 1992 or MOD AL39) and 50% clean fresh water.	50% Load	13.7 gal/hr (52 L/hr)
Exhaust System			
Maximum back pressure	1.5 psi (10.0 kPa)		
Exhaust outlet size	4.8 in (123 mm)		

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
- 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

Manufacturer	Marathon	<ul style="list-style-type: none"> • 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
Type	Ext. Voltage Regulated, Brushless	
Gen Frame	MAGNAPLUS	
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	0.8	
Ambient	40°C	
Coupling Single Bearing	Flexible	
Amortisseur Windings	Full	
Cooling Air Volume	250 CFM	
Peak Motor Starting	30% Voltage Dip, 1100 kVA	
Voltage Regulation	1 Phase Sensing 1%	
no-load and full-load	Optional 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

- 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

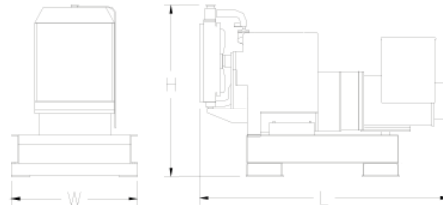
APPROVALS AND LISTINGS

- UL Standard 2200

WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H, in.: 140 in. x 66 in. x 79 in.
WEIGHT: 7663 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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