



MODEL: TD100



Shown with optional features.

Ratings for 3 Φ / 60 Hz Operation

Standby:	kW	100
	kVA	125
Prime:	kW	90
	kVA	113

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.
- EPA Tier 3 Certified Engine.

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
TD100	362CSL1606	277/480	3	60	100/125	150	90/113	136
		139/240	3	60	100/125	301	90/113	272
		254/440	3	60	100/125	164	90/113	148
		127/220	3	60	100/125	328	90/113	297
		240/416	3	60	100/125	173	90/113	157
		120/208	3	60	100/125	347	90/113	314
		120/240	3	60	100/125	301	90/113	272
		219/380	3	60	90/113	171	81/101	153
	120/240	1	60	79/79	329	72/72	300	
	363CSL1617	120/240	1	60	100/100	417	90/90	375

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	Lubrication System
Manufacturer	Perkins	Lubricating oil capacity total system
Model	1104D-E44TAG2	2.1 gal (8.0 L)
Number of cylinders	4	Maximum sump capacity
Cylinder arrangement	Vertical in-line	1.8 gal (7.0 L)
Cycle	Four stroke	Minimum sump capacity
Induction system	Turbocharged, air to air charge cooled	1.4 gal (5.5 L)
Compression ratio	16.2:1	Maximum engine operating angles (front up, front down, right side or left side)
Bore	4.13 in. (105 mm)	25°
Stroke	5.0 in. (127 mm)	
Cubic capacity	268.5 cu in. (4.4 L)	Lubricating Oil Pressure
Direction of rotation	Anti-clockwise when viewed from flywheel	Oil Temperature (continuous operation)
Firing order	1,3,4,2	257 °F (125 °C)
Governor type	ECM, Isochronous 0.25%	Oil Temperature (maximum intermittent operation)
Gross engine power	157 hp (117 kWb)	275 °F (135 °C)
Electropak net engine power	149 hp (111 kWm)	
Brake mean effective pressure	257 psi (1771 kPa)	Electrical System
Engine coolant flow (against 5 psi (35 kPa) restriction)	37 gal/min (169 L/min)	Type
Cooling fan air flow (29 psi (200 kPa) external restriction)	7,924 cfm (224.4 m ³ /min)	12 volt negative earth
Combustion air flow (at rated speed)	300 cfm (8.5 m ³ /min)	Alternator type
Exhaust gas flow (max)	706 cfm (20.0 m ³ /min)	Denso A115i
Exhaust gas mass flow (max)	22.7 lb/min (10.3 kg/min)	Alternator Voltage
Exhaust gas temperature in manifold (max)	942 °F (506 °C)	12V
Boost pressure ratio	2.8	Alternator Output
Overall thermal efficiency (net)	37%	65A
		Starter motor type
		Denso P95
		Starter motor voltage
		12V
		Starter motor power
		4.0 hp (3.0 kW)
		Minimum cranking speed
		80 rev/min
		Induction System
		Maximum air intake restriction
		Clean filter
		.73 psi (5 kPa)
		Dirty filter
		1.2 psi (8 kPa)
		Air filter type
		2 stage cyclonic/paper element
		Duct allowance with 50% glycol
		1800 rev/min
		1800 rev/min
		127 °F (53 °C)
		114 °F (46 °C)
		17.4 psi (120 kPa)
		29 psi (200 kPa)
		6,427 cfm (182 m ³ /min)
		5,438 cfm (154 m ³ /min)
		Fuel System
		Type of injection
		Direct
		Fuel injection pump
		Common rail
		Fuel atomizer
		Unit injector/ multi-hole
		Fuel Lift Pump
		Max flow through customer filter
		34.3 gal/hour (130 L/hr)
		Maximum suction head
		17 kPa (1.7 m)
		Fuel Consumption
		110% Load
		7.9 gal/hr (29.96 L/hr)
		100% Load
		7.3 gal/hr (27.77 L/hr)
		75% Load
		5.8 gal/hr (22.04 L/hr)
		50% Load
		4.2 gal/hr (16.07 L/hr)

Basic Technical Data

Lubrication System

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Induction system	Turbocharged, air to air charge cooled
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Governor type	ECM, Isochronous 0.25%
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Exhaust gas temperature in manifold (max)	942 °F (506 °C)
Boost pressure ratio	2.8
Overall thermal efficiency (net)	37%

Lubricating oil capacity total system	2.1 gal (8.0 L)
Maximum sump capacity	1.8 gal (7.0 L)
Minimum sump capacity	1.4 gal (5.5 L)
Maximum engine operating angles (front up, front down, right side or left side)	25°

Lubricating Oil Pressure	
Oil Temperature (continuous operation)	257 °F (125 °C)
Oil Temperature (maximum intermittent operation)	275 °F (135 °C)

Electrical System	
Type	12 volt negative earth
Alternator type	Denso A115i
Alternator Voltage	12V
Alternator Output	65A
Starter motor type	Denso P95
Starter motor voltage	12V
Starter motor power	4.0 hp (3.0 kW)
Minimum cranking speed	80 rev/min

Induction System

Maximum air intake restriction	
Clean filter	.73 psi (5 kPa)
Dirty filter	1.2 psi (8 kPa)
Air filter type	2 stage cyclonic/paper element

Duct allowance with 50% glycol

1800 rev/min	1800 rev/min
127 °F (53 °C)	114 °F (46 °C)
17.4 psi (120 kPa)	29 psi (200 kPa)
6,427 cfm (182 m ³ /min)	5,438 cfm (154 m ³ /min)

Fuel System

Type of injection	Direct
Fuel injection pump	Common rail
Fuel atomizer	Unit injector/ multi-hole

Fuel Lift Pump

Max flow through customer filter	34.3 gal/hour (130 L/hr)
Maximum suction head	17 kPa (1.7 m)

Exhaust System

Maximum back pressure	2.1 psi (12 kPa)
Exhaust outlet size	2.5 in (64 mm)

Fuel Consumption

110% Load	7.9 gal/hr (29.96 L/hr)
100% Load	7.3 gal/hr (27.77 L/hr)
75% Load	5.8 gal/hr (22.04 L/hr)
50% Load	4.2 gal/hr (16.07 L/hr)

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

Manufacturer	Marathon
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, 205 skVA
Voltage Regulation	1 Phase Sensing 1%
no-load and full-load	Optional 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 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

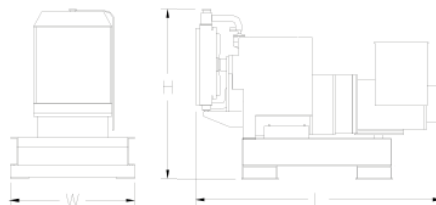
APPROVALS AND LISTINGS

- UL Standard 2200

WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H, in.: 70 in. x 36 in. x 60.2 in.
WEIGHT: 1251 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:

PENNCAT CORPORATION
404 ELM AVENUE
NORTH WALES, PA 19454
TEL: 610-272-0505
www.PENNCAT.com