you can depend on TAYLOR POWER SYSTEMS

TG40

Ratings Range — 60 Hertz Operation

Standby: kW 41-45
kVA 51-56

Throughout it's 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 2000 kW and gaseous powered 30 kW to 400 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 with integral vibration isolators.
- EPA Certified Engine.

Genset Ratings

Genset Model Number	Alternator	Voltage L-N / L-L	Phase	Hertz	Natural Gas 130º Rise Standby Rating		LP Gas 130º Rise Standby Rating	
					kW / kVA	Amps	kW / kVA	Amps
TG40	361CSL1600	277/480	3	60	42/53	63	45/56	68
		139/240	3	60	42/53	126	45/56	135
		127/220	3	60	41/51	134	42/52	137
		240/416	3	60	41/51	71	42/52	72
		120/208	3	60	41/51	142	42/52	145
		120/240	3	60	41/51	123	42/52	125
		220/380	3	60	41/51	78	42/52	79
		120/240	1	60	39/39	163	39/39	163
	361CSL1611	120/240	1	60	41/41	171	45/45	188

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

Manufacturer	General Motors
Model	Vortec 4.3 L
Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	4
Induction system	Natural Aspiration
Compression ratio	9.05:1
Bore	4 in (101.6 mm)
Stroke	3.48 in (88.4 mm)
Cubic capacity	262 cu in (4.3 L)
Piston speed	1044 ft/min (318 m/min)
Main bearings: qty and type	4, Babbitt
Governor type	Electronic
Rated rpm	1800
Max power at rated rpm	75 hp (56 kW)
Engine power at Standby rating	
Natural Gas	68 hp (50.7 kW)
LP Gas	75 hp (56 kW)
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	± 0.5%
Frequency	Fixed
Air cleaner type	Dry

Exhaust System

Exhaust manifold type	Dry
Exhaust flow at rated kW	327 cfm (9.3 m³/min)
Exhaust temperature at rated kW	1200 ºF (649 ºC)
Maximum allowable back pressure	3.0 in (10.2 kPa)
Exhaust outlet size at engine hookup	3 in (76 mm) O.D.

Cooling System

Ambient temperature	122 ºF (50 ºC)
Engine jacket water capacity	1.8 gal (6.8 L)
Radiator system capacity, including engine	5.2 gal (19.7 L)
Engine jacket water flow	28 gpm (106 Lpm)
Heat rejected to cooling water at rated kW	2320 Btu/min (40.8 kW)
Max restriction of cooling air, intake and discharge side of radiator	0.5 H2O (0.125 kPa)

Lubrication System

Type	Full Pressure
Oil pan capacity	4.5 qt (4.3 L)
Oil pan capacity with filter	6.0 qt (5.7 L)
Oil filter: qty and type	1, Cartridge

Electrical System

Ignition system	Electronic
Battery charging alternator:	
Ground	negative
Volts	12
Ampere rating	70
Starter motor rated voltage	12
Battery, recommended cold cranking amps (CCA):	
Qty rating for –18 ºC (0 ºF)	1,630
Battery voltage	12

Operation Requirements

Radiator-cooled cooling air, m³/min (scfm) ‡	5000 scfm (142 m³/min)
Combustion air	98 cfm (2.78 m³/min)
Heat rejected to ambient air:	
Engine	1090 Btu/min (19.2 kW)
Alternator	420 Btu/min (7.4 kW)

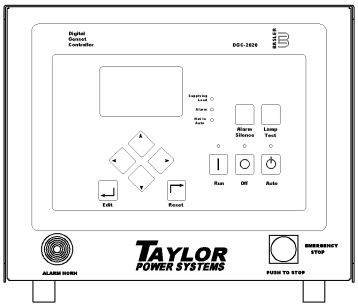
Fuel System

Fuel Type	LP Gas, Natural Gas or Dual Fuel

Fuel Consumption

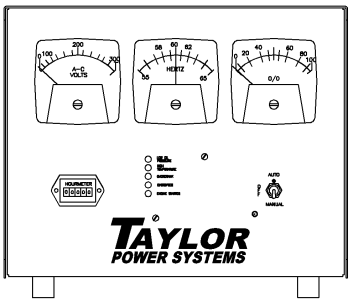
Natural Gas	
100% Load	584 cfh (16.5 m³/hr)
75% Load	486 cfh (13.8 m³/hr)
50% Load	360 cfh (10.2 m³/hr)
25% Load	272 cfh (7.7 m³/hr)
LP Gas	
100% Load	246 cfh (7 m³/hr)
75% Load	202 cfh (5.7 m³/hr)
50% Load	147 cfh (4.2 m³/hr)
25% Load	104 cfh (2.9 m³/hr)

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 Adc 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

Manufacturer	Marathon
Type	Ext. Voltage Regulated, Brushless
Gen Frame	MAGNAPLUS
Insulation	NEMA
Material	Class H
Temperature Rise	130 ºC, Standby
Hertz	60
Phase	3
RPM	1800
Exciter	Rotating
# Leads	12 Reconnectable or 4 Single Phase
PF	0.8
Ambient	40ºC
Coupling Single Bearing	Flexible
Amortisseur Windings	Full
Cooling Air Volume	250 CFM
Peak Motor Starting	30% Voltage Dip, 95 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

TAYLOR POWER SYSTEMS

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

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

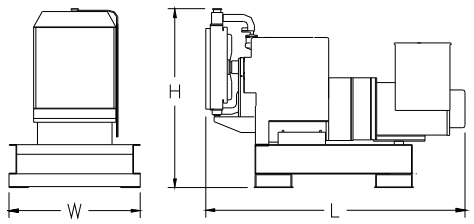
- □ Flexible Fuel Lines
- □ Coolant Drain Kit
- □ Water Jacket Heater
- □ Oil Pan Heater
- □ Generator Strip Heater
- □ Battery
- □ Battery Charger
- □ Pad Type Battery Heater
- □ Battery Heater Blanket with Thermostat
- □ Line Circuit Breaker
- □ Dual Fuel

WARRANTY

- □ 3 Year Warranty
- □ 5 Year Warranty

WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H, in.: 74 in x 46 in x 52 in
WEIGHT: 1659 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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