

Ratings Range — 60 Hertz Operation

Standby:	kW	30
	kVA	38
Prime:	kW	31
	kVA	39

Throughout its 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

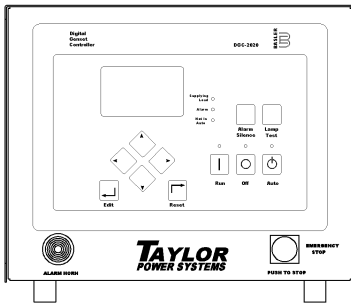
Genset Model Number	Alternator	Voltage L-N / L-L	Phase	Hertz	Natural Gas 130° Rise Standby Rating		LP Gas 130° Rise Standby Rating	
					kW / kVA	Amps	kW / kVA	Amps
TG30	283CSL1507	277/480	3	60	30/38	45	31/39	47
		139/240	3	60	30/38	90	31/39	93
		127/220	3	60	30/38	98	31/39	102
		240/416	3	60	30/38	53	31/39	54
		120/208	3	60	30/38	104	31/39	108
		120/240	3	60	30/38	90	31/39	93
		220/380	3	60	30/38	57	31/39	59
	120/240	1	60	25/25	104	25/25	104	
	283CSL1718	120/240	1	60	30/30	125	28/28	117

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

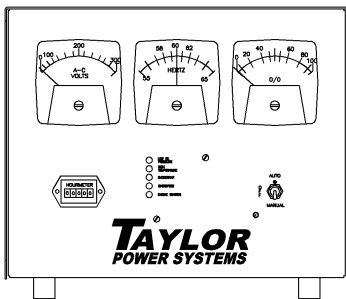
Basic Technical Data		Lubrication System	
Manufacturer	General Motors	Type	Full Pressure
Model	3.0 L	Oil pan capacity	4.0 qt (3.8 L)
Number of cylinders	4	Oil pan capacity with filter	4.3 qt (4.1 L)
Cylinder arrangement	In-Line	Oil filter: qty and type	1, Cartridge
Cycle	4	Electrical System	
Induction system	Natural Aspiration	Ignition system	Electronic
Compression ratio	8.2:1	Battery charging alternator:	
Bore	4 in (101.6 mm)	Ground	negative
Stroke	3.60 in (91.4 mm)	Volts	12
Cubic capacity	181 cu in (3 L)	Ampere rating	70
Piston speed	1080 ft/min (329 m/min)	Starter motor rated voltage	12
Main bearings: qty and type	2, Bolt	Battery, recommended cold cranking amps (CCA):	
Governor type	Electronic	Qty rating for -18 °C (0 °F)	1,630
Rated rpm	1800	Battery voltage	12
Max power at rated rpm	49 hp (36.5 kW)	Operation Requirements	
Engine power at Standby rating	49 hp (36.5 kW)	Radiator-cooled cooling air, m ³ /min (scfm) ‡	7100 scfm (200 m ³ /min)
Frequency regulation, no-load to full-load	Isochronous	Combustion air	74 cfm (2.1 m ³ /min)
Frequency regulation, steady state	± 0.5%	Heat rejected to ambient air:	
Frequency	Fixed	Engine	522 Btu/min (9.2 kW)
Air cleaner type	Dry	Alternator	259 Btu/min (4.5 kW)
Exhaust System		Fuel System	
Exhaust manifold type	Dry	Fuel Type	LP Gas, Natural Gas or Dual Fuel
Exhaust flow at rated kW	7.1 cfm (250 m ³ /min)	Fuel Consumption	
Exhaust temperature at rated kW	1270 °F (688 °C)	Natural Gas	
Maximum allowable back pressure	3.0 in (10.2 kPa)	100% Load	430 cfm (12.2 m ³ /hr)
Exhaust outlet size at engine hookup	2.5 in (64 mm) O.D.	75% Load	340 cfm (9.6 m ³ /hr)
Cooling System		50% Load	255 cfm (7.2 m ³ /hr)
Ambient temperature	122 °F (50 °C)	25% Load	179 cfm (5.1 m ³ /hr)
Engine jacket water capacity	1.8 gal (6.8 L)	LP Gas	
Radiator system capacity, including engine	3.9 gal (14.9 L)	100% Load	175 cfm (5 m ³ /hr)
Engine jacket water flow	11 gpm (42 Lpm)	75% Load	144 cfm (4.1 m ³ /hr)
Heat rejected to cooling water at rated kW	1940 Btu/min (34.1 kW)	50% Load	108 cfm (3.1 m ³ /hr)
Max restriction of cooling air, intake and discharge side of radiator	0.5 H ₂ O (0.125 kPa)	25% Load	74 cfm (2.1 m ³ /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 A/c 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	<ul style="list-style-type: none"> • NEMA MG1, IEEE, AND ANSI standards compliance for temperature and motor starting. • 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
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, 90 skVA	
Voltage Regulation no-load and full-load	1 Phase Sensing 1% 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

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

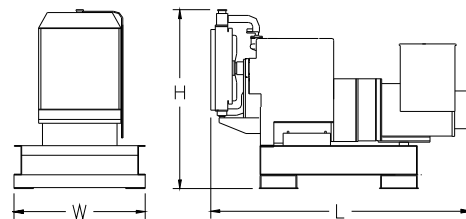
WARRANTY

- 3 Year Warranty
- 5 Year Warranty

WEIGHTS AND DIMENSIONS

OVERALL SIZE, L x W x H, in.: 70 in x 36 in x 48 in
WEIGHT: 1005 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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