



Model: TG350



Shown with optional features.

Rating Range — 3 Φ / 60 Hz Operation

Standby: kW 255-350
kVA 318-437

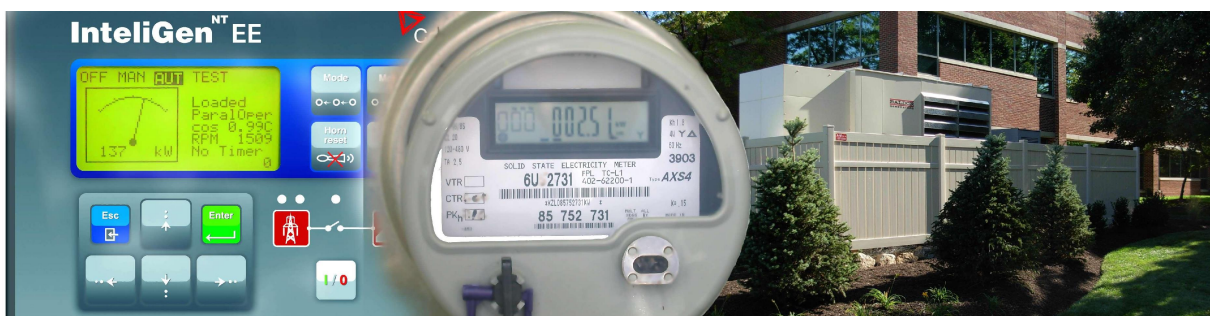
FEATURES

- 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 Certified Engine.

GEN SET 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
TG350	433CSL6216	277/480	3	60	350/437	525	255/318	382
		139/240	3	60	350/437	1051	255/318	765
		127/220	3	60	350/437	1147	255/318	834
		240/416	3	60	350/437	606	255/318	441
		120/208	3	60	350/437	1212	255/318	882
		120/240	3	60	350/437	1051	255/318	765
		220/380	3	60	350/437	664	255/318	483
		120/240	1	60	241/241	1004	220/220	916

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	Doosan	Type	Full Pressure
Model	D183TIC	Oil pan capacity	37 qt (35 L)
Number of cylinders	10	Oil pan capacity with filter	44.5 qt (42.1 L)
Cylinder arrangement		Oil filter: qty and type	2, Cartridge
Cycle	4		
Induction system	Turbocharged, Charge Air-Cooled		
Compression ratio	10.5:1	Electrical System	
Bore	5.04 in (128 mm)	Ignition system	N/A
Stroke	5.59 in (142 mm)	Battery charging alternator:	
Cubic capacity	1115 cu in (18.273 L)	Ground	negative
Piston speed	1677 ft/min (511 m/min)	Volts	24
Main bearings: qty and type	12, Precision Half-Shell	Ampere rating	45
Governor type	Electronic	Starter motor rated voltage	24
Rated rpm	1800	Battery, recommended cold cranking amps (CCA):	
Max power at rated rpm	530 hp (395 kW)	Qty rating for -18 °C (0 °F)	Two, 1000
Engine power at Standby rating	N/A	Battery voltage	12
Frequency regulation, no-load to full-load	Isochronous	Operation Requirements	
Frequency regulation, steady state	± 0.5%	Radiator-cooled cooling air, m³/min (scfm) ‡	19500 scfm (552 m ³ /min)
Frequency	Fixed	Combustion air	664 cfm (1328 m ³ /min)
Air cleaner type	Dry	Heat rejected to ambient air:	
		Engine	3121 Btu/min (55 kW)
		Alternator	1195 Btu/min (21 kW)
Exhaust System		Fuel System	
Exhaust manifold type	Wet	Fuel Type	LP Gas, Natural Gas or Dual Fuel
Exhaust flow at rated kW	2366 cfm (1411 kg/hr)		
Exhaust temperature at rated kW	1382 °F (750 °C)		
Maximum allowable back pressure	3.0 in (10.2 kPa)	Fuel Consumption	
Exhaust outlet size at engine hookup	N/A	<u>Natural Gas</u>	
		100% Load	3984 cfh (112.9 m ³ /hr)
		75% Load	3053 cfh (86.5 m ³ /hr)
		50% Load	2109 cfh (59.8 m ³ /hr)
		25% Load	1253 cfh (35.5 m ³ /hr)
Cooling System		<u>LP Gas</u>	
Ambient temperature	122 °F (50 °C)	100% Load	1289 cfh (36.5 m ³ /hr)
Engine jacket water capacity	11 gal (50 L)	75% Load	979 cfh (27.7 m ³ /hr)
Radiator system capacity, including engine	43 gal (163 L)	50% Load	701 cfh (19.9 m ³ /hr)
Engine jacket water flow	174 gpm (660 Lpm)	25% Load	446 cfh (12.6 m ³ /hr)
Heat rejected to cooling water at rated	20400 Btu/min (359 kW)		
Max restriction of cooling air, intake and discharge side of radiator	0.5 H ₂ O (0.125 kPa)		

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 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, 760 skVA	
Voltage Regulation no-load and full-load	1 Phase Sensing 1% Optional 3 Phase Sensing 1/2%	

