



# GILLETTE GENERATORS

## LIQUID COOLED DIESEL ENGINE GENERATOR SET

60 HZ MODEL  
**T4D-3000**

Model	HZ	STANDBY	PRIME
		130°C RISE	105°C RISE
<b>T4D-3000-60 HERTZ</b>	60	300	300



All generator sets are USA prototype built and thoroughly tested. Production models are USA factory built and 100% load tested.



**UL1446, UL508, UL142, UL498**



**NFPA 110, 99, 70, 37**

All generator sets meet NFPA-110 Level 1, when equipped with the necessary accessories and installed per NFPA standards.



**NEC 700, 701, 702, 708**



**NEMA ICS10, MG1, ICS6, AB1**



**ANSI C62.41, 27, 59, 32, 480, 40Q, 81U, 360-05**

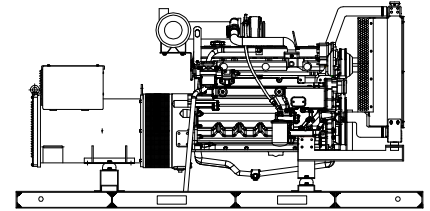


**ASCE 7-05 & 7-10**

All generator sets meet 180 MPH rating.

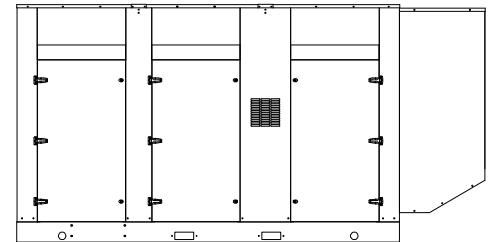


**EPA 40CFR Part 60, 89, 1039, 1048, 1054, 1065, 1068**



“OPEN” GEN-SET

There is no enclosure, so gen-set must be placed within a weather protected area, uninhabited by humans or animals, with proper ventilation. Silencer not supplied, as installation requirements are not known. However, this item is available as optional equipment.



“LEVEL 2” HOUSED GEN-SET

Full aluminum weather protection and superior sound attenuation for specific low noise applications. Critical grade muffler is standard.

### GENERATOR RATINGS

GENERATOR MODEL	VOLTAGE		PH	HZ	130°C RISE STANDBY RATING		105°C RISE PRIME RATING	
	L-N	L-L			KW/KVA	AMP	KW/KVA	AMP
<b>T4D-3000-3-2</b>	120	208	3	60	300/375	1042	300/375	1042
<b>T4D-3000-3-3</b>	120	240	3	60	300/375	903	300/375	903
<b>T4D-3000-3-4</b>	277	480	3	60	300/375	451	300/375	451
<b>T4D-3000-3-5</b>	127	220	3	60	300/375	985	300/375	985
<b>T4D-3000-3-16</b>	346	600	3	60	300/375	361	300/375	361

RATINGS: All three phase gen-sets are 12 lead windings, rated at .8 power factor. 130° C “STANDBY RATINGS” are strictly for gen-sets that are used for back-up emergency power to a failed normal utility power source. This standby rating allows varying loads, with no overload capability, for the entire duration of utility power outage. 105° C “PRIME RATINGS” are strictly for gen-sets that provide the prime source of electric power, where normal utility power is unavailable or unreliable. A 10% overload is allowed for a total of 1 hour, within every 12 hours of operation, on every PRIME RATED systems. All gen-set power ratings are based on temperature rise measured by resistance method as defined by MIL-STD 705C and IEEE STD 115, METHOD 6.4.4. All generators have class H (180°C) insulation system on both rotor and stator windings. All factory tests and KW/KVA charts shown above are based 130°C (standby), and 105°C (prime) R/R winding temperature, within a maximum 40°C ambient condition. Generators operated at standby power ratings must not exceed the temperature rise limitation for class H insulation system, as specified in NEMA MG1-22.40. Specifications & ratings are subject to change without prior notice.



# APPLICATION & ENGINEERING DATA FOR MODEL T4D-3000-60 HZ

## COOLING SYSTEM

Type of System .....	Air to Air, Charged Air Cooler
Coolant Pump .....	Pre-lubricated, self-sealing
Cooling Fan Type .....	Pusher
Fan Diameter inches (cm).....	35.1 (89)
Fan drive ratio.....	0.99:1
Ambient Capacity of Radiator °F (°C).....	131 (55)
Engine Jacket Coolant Capacity gal. (L).....	5.28 (20)
Radiator Coolant Capacity gal. (L).....	11.7 (44)
Water Pump Capacity gpm (L/min).....	87.0 (329)
Heat Reject Coolant: Btu/min.....	10,123
Air to Air Heat Reject, BTU/min. ....	5,346
Heat Radiated to Ambient, BTU/min .....	3,415
Low Radiator Coolant Level Shutdown.....	Standard
Note: Coolant temp. shut-down switch setting at 228°F (109°C) with 50/50 (water/antifreeze) mix.	

## COOLING AIR REQUIREMENTS

Combustion Air cfm (m <sup>3</sup> /min) .....	1,646 (46.6)
Max Air Intake Restrictions:	
Clean Air Cleaner, KPA (psi).....	5 (1.5)
Radiator Cooling Air, SCFM (m <sup>3</sup> /min).....	29,894 (846)

## EXHAUST SYSTEM

Exhaust Outlet Size.....	8"
Max. Back Pressure in KPA (in. H2O).....	10 (40)
Exhaust Flow, at rated KW, CFM (m <sup>3</sup> /min).....	4,347 (123)
Exhaust Temp, (Stack) °F (°C) .....	932 (500)

## SOUND LEVELS MEASURED IN dB(A)

	<u>Open</u> <u>Set</u>	<u>Level 2</u> <u>Encl.</u>
Level 2, SCR/Residential Silencer .....	98.....	83

Note: Open sets (no enclosure) have installed selective catalytic reduction/residential silencer system. Level 2 enclosure has installed selective catalytic reduction/residential silencer. Sound tests are averaged from several test points and taken at 23 ft. (7 m) from source of noise at normal operation.

## DERATE GENERATOR FOR ALTITUDE

3% per 1000 ft. (305m) above 3000 ft. (914m) from sea level

## DERATE GENERATOR FOR TEMPERATURE

2% per 10°F (5.6°C) above 104°F (40°C)

## DIMENSIONS AND WEIGHTS

	<u>Open</u> <u>Set</u>	<u>Level 2</u> <u>Enclosure</u>
Length in (cm).....	132 (335) .....	186 (472)
Width in (cm).....	52 (132) .....	72 (183)
Height in (cm).....	65 (165) .....	94 (239)
Net Weight lbs (kg).....	6327 (2870) ...	8097 (3673)
Ship Weight lbs (kg).....	6602 (2995) ...	8462 (3839)

# BASLER DGC-2020 DIGITAL MICROPROCESSOR CONTROLLER

### Basler DGC-2020



The “2020” controller is a highly advanced integrated gen-set control system for single gen-set applications. This controller includes a backlit LCD display which continuously displays the status of the engine and generator at all times.

Basler “DGC-2020” includes: Generator metering (including three phase) • Engine – Generator protections including IEEE-[27] under voltage, [32] power, [40] loss of excitation, [59] over voltage, [81] over and under frequency, Exercise timer • SAE J1939 engine ECU communications • Expansion capabilities for both inputs and outputs with expansion • Remote communications through RS-485 to Basler’s RDP110 remote Display panel • (16) programmable contact inputs • (15) programmable contact outputs- (3) for up to 30AmpDC and (12) for up to 2 Amp DC • Illuminated Text Display • Front panel menu scroll buttons • Front panel operation mode buttons for STOP, RUN and AUTO • Alarm Silence and Lamp Test buttons

This controller includes expansion features including, RS485 (using MODBUS), direct USB connection with PC, expansion optioned using BESTCOMSPPlus for remote annunciation and remote relay interfacing for a distance of up to 3300FT. The controller software is freely downloadable from the internet and allows monitoring with direct USB cable, LAN, or by internet via the built in web interface.



Further expansion is available by adding the optional RDP-110 remote display panel module. This featured device will allow Four programmable LEDs (2) alarms and (2) pre-alarms • (17) alarms and pre-alarms displayed from Basler controller • audible alarm horn • lamp test and alarm silence buttons • RD100 local power supply inputs of either 12vdc or 24vdc • connects through Basler controller through RS-485 communications protocol • conduit box included for (2) mounting configurations- either surface mount or semi-flush mounting.

# STANDARD FEATURES FOR MODEL T4D-3000-60 HZ

## STANDARD FEATURES

### CONTROL PANEL:

- Basler DGC-2020 digital microprocessor with logic allows programming in the field. Controller has:
- STOP-MANUAL-AUTO modes and automatic engine shutdowns, signaled by full text LCD indicators:
  - Low oil pressure
  - High engine temp
  - Low Radiator Level
  - Three auxiliary alarms
  - Battery fail alarm
  - Engine fail to start
  - Engine over speed
  - Engine under speed
  - Over & under voltage

Also included is tamper-proof engine hour meter

### ENGINE:

- Fuel filter
- Full flow Oil filter
- Air filter
- Fuel pump
- Oil pump
- Solenoid type starter motor
- Hi-temp radiator
- Jacket water pump
- Thermostat
- Pusher fan and guard
- Exhaust manifold
- Electronic Governor
- 24 VDC battery charging alternator
- Flexible fuel and exhaust connectors
- Vibration isolators
- Open coolant recovery system with 50/50 water to anti-freeze mixture
- flexible oil & radiator hose
- Shut-down sensors for low oil pressure, high coolant temp., low coolant level, high ambient temp.

### AC GENERATOR SYSTEM:

- AC generator
- Shunt excited
- Brushless design
- Circuit Breaker installed and wired to gen-set
- Direct connection to engine with flex disc
- Class H, 180°C insulation
- Self ventilated
- Drip proof construction
- UL Certified

### VOLTAGE REGULATOR:

- 1% Voltage regulation
- EMI filter
- Under-speed protection
- Over-excitation protection
- total encapsulation

### DC ELECTRICAL SYSTEM:

- Battery trays
- Battery cables
- Battery hold down straps
- 3-stage battery charger with float, absorption, & bulk automatic charge stages

### WEATHER / SOUNDPROOF ALUMINUM HOUSING:

Corrosion Resistant Protection consisting of:

- (9) Heated and Agitated Wash Stages
- Zinc Phosphate Etching-Coating Stage
- Final Baked on Enamel Powder Coat
- 18/8 Stainless Steel Hardware

Design & specifications subject to change without prior notice. Dimensions shown are approximate. Contact Gillette for certified drawings. DO NOT USE DIMENSIONS FOR INSTALLATION PURPOSES.

