Anexo 8: Especificaciones fabricante

PERFORMANCE DATA

3600 Family

1845-7670 hp
1375-5720 kW

Generator Sets

CATERPILLAR® ENGINE SPECIFICATIONS

Bore — mm (in) 280 (11.0)
Stroke — mm (in) 300 (11.8)
Displacement — L (cu in) 18.5 (1127)
Aspiration . . . . . Turbocharged-Aftercooled
Compression ratio 13:1
Rotation . . . . . ccw or cw
Low Idle Speed — rpm 300-400
Rated Speed — rpm 720-1000
Avg. Piston Speed—m/s (ft/s) 7.2-10.0 (23.6-32.8)
BMEP — bar (psi)
Continuous 20.0-21.7 (290-314)
Prime. 22.0-23.9 (319-347)
Standby 24.2-26.3 (351-382)
BSFC (with pumps) — g/kW-h (lb/hp-h)
Continuous . . . . . 187-199 (.307-.327)
Prime. . . . . 186-199 (.306-.327)
Standby . . . . . 186-199 (.306-.327)

RATING CONDITIONS

All Industry Voltages are Available

Ratings – Generator Set ratings are in electrical kilowatts, operating on distillate fuel.
Continuous – Power and speed capabilities of the engine which can be used without interruption of load — capable of 10% overload.
Prime – For electrical service with variable loads — capable of 10% overload.
Standby – for electrical service during interruption of normal power.
Power – ±5% power tolerance applicable for overload/fuel stop power.
Fuel consumption – is based on ISO3046/1 with +5% tolerance for distillate fuel having an LHV of 42 780 kJ/kg (18,390 BTU/lb) and density or 838.9 g/liter (7.001 lbs/U.S. gal.). Including all associated pumps.
Heavy Fuel continuous ratings are 9% less than distillate fuel. Prime and standby ratings are not available. Fuel viscosity and contaminant capability is CIMAC Class K55 (700 cSt at 50°C) at 720-1000 rpm.
Description – Caterpillar® 3600 Generator Sets are designed to provide reliable and durable service with a wide variety of blended and bunker fuels up to 700 cSt at 50°C.

Generator Set **Displacement** kW at 720 rpm/60Hz kW at 750 rpm/50 Hz kW at 900 rpm/60 Hz kW at 1000 rpm/50Hz
Engine Model Liters
(cu. in.) Cont. Prime Stdby Cont. Prime Stdby Cont. Prime Stdby Cont. Prime Stdby
3606 110.8 1375 1525 1680 1420 1570 1730 1650 1820 2000 1760 1940 2150
6 In-line **6,764**
3608 147.8 1830 2020 2220 1890 2080 2290 2200 2420 2660 2350 2600 2860
8 In-line **9,018**
3612 221.7 2750 3050 3360 2840 3140 3460 3300 3640 4000 3520 3880 4300
12 Vee **13,527**

3616 295.6 3660 4040 4440 3780 4160 4580 4400 4840 5320 4700 5200 5720
16 Vee **18,036**

DIMENSIONAL DATA

STANDARD EQUIPMENT

Engine

Accessory module with coolant expansion tank
Base mounting
Base, with lifting provisions and vibration isolators
Breather, crankcase
Circuit cooling system, combined or separate
Cooler, lubricating oil
Duplex filters, right/left hand
fuel, full flow
lubricating oil, full flow
Engine running relay signal
Governor, Electronic 2301A
Instrument panel, includes:
differential pressure gauges – oil filter, fuel filter, and inlet air restriction
digital tachometer
pressure gauges – oil, fuel
temperature gauges – engine coolant, lubricating oil, exhaust stack, and air manifold
Manifold, exhaust, dry shielded
Oil filters, centrifugal
Pumps, gear driven
aftercooler & oil cooler
fuel transfer
jacket water
lubricating oil
Shutoff, electrical 24 VDC, for:
crankcase pressure
high oil temperature
high water temperature
low oil pressure (high & low idle)
overspeed
Single or separate circuit cooling system
Starting, air

Generator

Electrical

3 phase, six leads, WYE
Class “F” insulation
Maximum voltage harmonic – not to exceed 5% total with no single voltage harmonic above 3%
NEMA MG1-22, IEC 34-1
Overload capability 110% for two hours on prime . and continuous ratings
Short circuit capability: 300% overcurrent for 10 seconds
Voltage waveform – less than 5% deviation

Mechanical

Bearing, two sleeve, self-lubricating
Enclosure – open drip-proof – guarded (IP23)
Mechanical balance, NEMA
Overspeed: 125% per IEC 34-1 and NEMA MG-1

Package

Performance test to ISO8528

Standard Accessories

Bearing temperature detectors

Space heaters, single phase
Stator temperature detectors
Terminal box for connections
Voltage Regulation: ±1/2% no load to full load
Paralleling capability
Power isolation transformers and/or permanent magnet excitation
Static regulator, 1 or 3 phase sensing

3600 FAMILY GENERATOR SETS

Supersedes LEHX5051

Gen Set
3606
3608
3612
3616

All data is for reference only. Data is subject to change without notice. Check TMI or contact factory for confirmation.

No radiator is included in table below.

WT L H W
kg lb mm in mm in mm in
34,070 74,970 7950 313 3330 131 2425 96
41,390 91,050 9240 364 3330 131 2425 96
51,230 112,690 8970 353 3710 146 2515 99
64,470 141,840 10,260 404 3790 149 2515 99