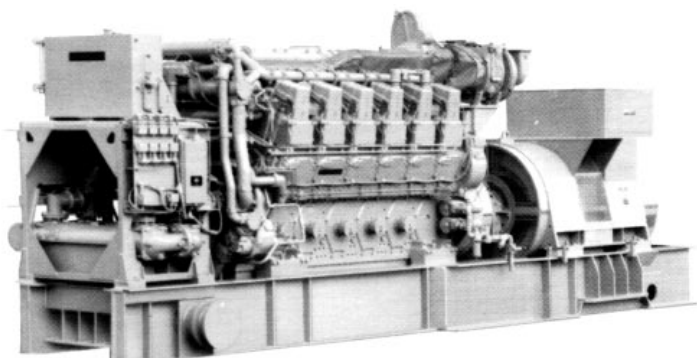




Generator Sets 3600 Family

1845-7670 hp
1375-5720 kW



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)

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.

PERFORMANCE DATA

All Industry Voltages are Available

Generator Set Engine Model	Displacement Liters (cu. in.)	kW at 720 rpm/60Hz			kW at 750 rpm/50 Hz			kW at 900 rpm/60 Hz			kW at 1000 rpm/50Hz		
		Cont.	Prime	Stdby	Cont.	Prime	Stdby	Cont.	Prime	Stdby	Cont.	Prime	Stdby
3606 6 In-line	110.8 6,764	1375	1525	1680	1420	1570	1730	1650	1820	2000	1760	1940	2150
3608 8 In-line	147.8 9,018	1830	2020	2220	1890	2080	2290	2200	2420	2660	2350	2600	2860
3612 12 Vee	221.7 13,527	2750	3050	3360	2840	3140	3460	3300	3640	4000	3520	3880	4300
3616 16 Vee	295.6 18,036	3660	4040	4440	3780	4160	4580	4400	4840	5320	4700	5200	5720

RATING CONDITIONS

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 of 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.

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: $\pm 1/2\%$ no load to full load
 Paralleling capability
 Power isolation transformers and/or permanent magnet excitation
 Static regulator, 1 or 3 phase sensing

DIMENSIONAL DATA

No radiator is included in table below.

Gen Set	WT		L		H		W	
	kg	lb	mm	in	mm	in	mm	in
3606	34,070	74,970	7950	313	3330	131	2425	96
3608	41,390	91,050	9240	364	3330	131	2425	96
3612	51,230	112,690	8970	353	3710	146	2515	99
3616	64,470	141,840	10,260	404	3790	149	2515	99

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