

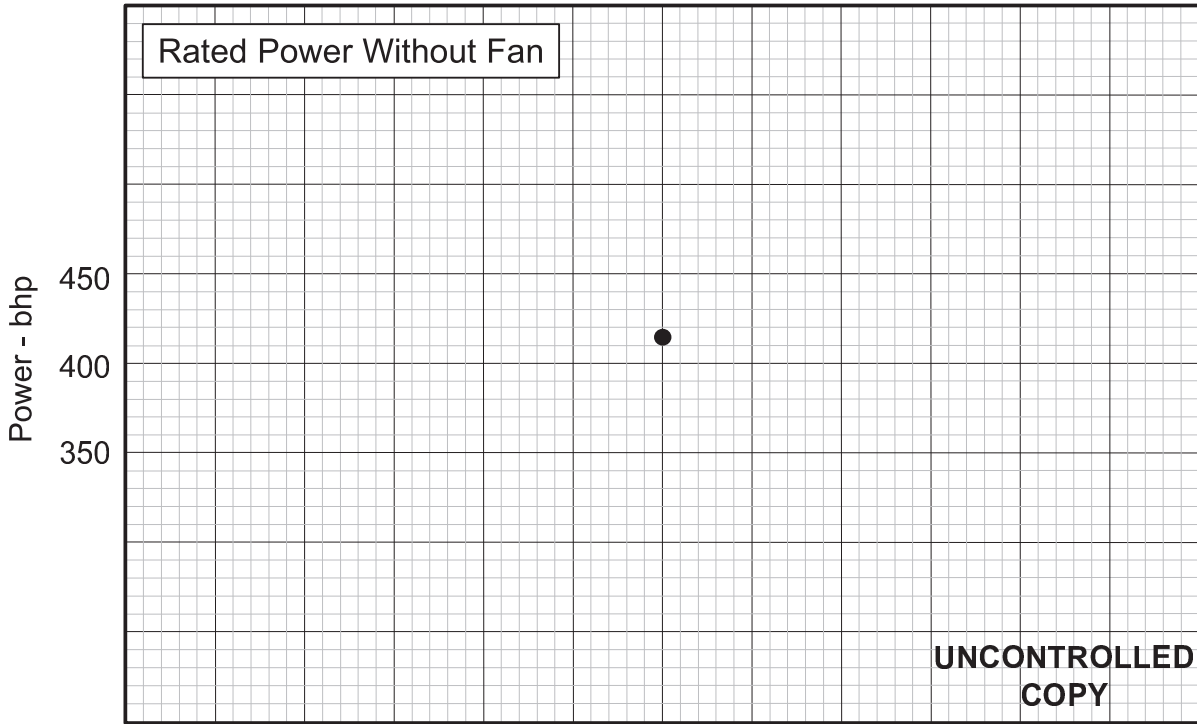
DETROIT DIESEL



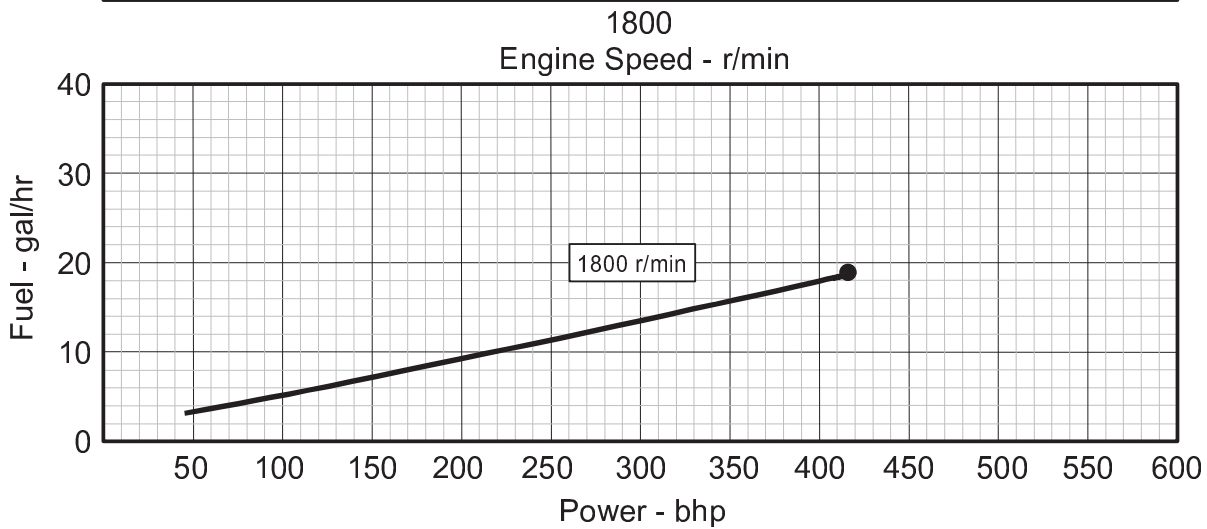
Generator Set Power

Model: Series 60®
Rating: 415 bhp (310 kW) @ 1800 r/min

Certification:
 1997-98 Nonroad
 Standby Power



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<p>Power output guaranteed within 5% at SAE J1995 conditions: 77°F (25°C) air inlet temperature; 29.31 in. Hg (99kPa) dry barometer; Fuel consumption data is based on diesel fuel No.2 with a fuel weight of 7.11 lb/U.S. gal (.85kg/liter) Performance is based on minimum intake and exhaust restrictions Values derived are from currently available data and subject to change without notice</p>	<p><i>Conversion Factors:</i> Power: kW = bhp x 0.746 Fuel: L/hr = gal/hr x 3.785</p>	<p>Turbo: TMF55 (1.34 A/R) Injector: 5235695</p>
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Certified by: *Paul Ammer*

Curve No. E4-6065-32-8
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Performance Curve

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GENERATOR SPECIFICATION SHEET

STANDBY POWER - 1800 r/min

General Data

Model	6063-TK35
Number of Cylinders	6
Bore and Stroke – in. x in. (mm x mm)	5.12 x 6.30 (130 x 160)
Displacement – in. ³ (L)	778 (12.7)
Compression Ratio	15.0:1
Piston Speed – ft/min (m/min)	1890 (576)
Intake Valves Per Cylinder	2
Exhaust Valves Per Cylinder	2
Combustion System	DIRECT INJECTION
Engine Type	INLINE 4 CYCLE
Aspiration	TURBOCHARGED

Configuration

Injection Device	EUI
Turbocharger	TMF55 (1.34 A/R)
Charge Air Cooling	AIR TO AIR
Engine Crankcase Vent System	OPEN

Physical Data

Size:	
Length – in. (mm)	57.2 (1453)
Width – in. (mm)	35 (889)
Height – in. (mm)	54.2 (1377)
Weight, Dry – lb (kg)	2630 (1193)
Weight, Wet – lb (kg)	2752 (1248)
Center of Gravity Distance:	
From R.F.O.B. (x axis) – in. (mm)	22.3 (566)
Above Crankshaft (y axis) – in. (mm)	8.6 (218)
Right of Crankshaft (z axis) – in. (mm)	-1.4 (-35.6)
Installation Drawing	23515495 REF.

Mechanical Data

Thrust Bearing Load Limit – lb (N)	900 (4000)
Maximum Static Bending Moment at Rear	
Face of Block – lb-ft (N-m)	1000 (1356)
Additional Mechanical Data	E4-606-32-1

Fuel System

Fuel Injector – Part Number	5235695
Injection Timing Height – mm	78.8
Fuel Consumption – lb/hr (kg/hr)	131.9 (59.3)
Fuel Consumption – gal/hr (L/hr)	18.6 (70.4)
Fuel Spill – lb/hr (kg/hr)	485 (220)
Fuel Spill – gal/hr (L/hr)	68.2 (258)
Total Fuel Flow – lb/hr (kg/hr)	617 (280)
Total Fuel Flow – gal/hr (L/hr)	86.8 (328)
Maximum Fuel Inlet Temperature – °F (°C)	140 (60)
Maximum Fuel Pump Suction:	
Clean System – in. Hg (kPa)	6 (20.3)
Dirty System – in. Hg (kPa)	12 (41)
Fuel Filter Size, Primary – Microns	25
Fuel Filter Size, Secondary – Microns	8
Fuel Spill Restrictive Fitting – in. (mm)	0.08 (2.03)

Lubrication System

Oil Pressure at Rated Speed – lb/in. ² (kPa)	50 (345)
Oil Pressure at Low Idle – lb/in. ² (kPa)	12 (83)
In Pan Oil Temperature – °F	235 (113)
Oil Flow – gal/min (L/min)	31 (117)
Oil Pan Capacity:	
High Limit – qt (L)	32 (30)
Low Limit – qt (L)	26 (25)
Total Engine Oil Capacity with Filters – qt (L)	38 (36)
Engine Angularity Limits, Front Up – Degrees	27
Engine Angularity Limits, Front Down – Degrees	27
Engine Angularity Limits, Side Tilt – Degrees	21

Electrical System

Recommended Battery Capacity (CCA @ 0°F):	
12 Volt System	1875
24 Volt System	950
Maximum Resistance of Starting Circuit:	
12 Volt System – ohms	0.0012
24 Volt System – ohms	0.002

Cooling System

Engine Heat Rejection – Btu/min (kW)	6147 (108.1)
Charge Air Cooler Heat Rejection – Btu/min (kW)	3540 (62.2)
Engine Radiated Heat – Btu/min (kW)	2533 (44.5)
Coolant Flow – gal/min (L/min)	96 (363)
Thermostat:	
Start to Open – °F (°C)	190 (88)
Fully Open – °F (°C)	205 (96)
Maximum Water Pump Inlet Restriction – in. Hg (kPa)	0 (0)
Engine Coolant Capacity – qt (L)	24 (23)
Minimum Pressure Cap – lb/in. ² (kPa)	9 (62)
Water Pump Discharge Pressure	
(Exclusive Pressure Cap) – lb/in. ² (kPa)	16 (10)
Maximum Top Tank Temperature – °F (°C)	210 (99)
Minimum Top Tank Temperature – °F (°C)	160 (71)
Minimum Coolant Fill Rate – gal/min (L/min)	3 (11.4)
Cooling Index (110 °F Ambient w/H ₂ O @ Sea Level):	
Maximum Air to Water Diff. – °F (°C)	100 (56)
Deaeration, Air Handling Capacity – ft ³ /min (m ³ /min)	0.6 (0.017)
Minimum Drawdown Requirement – qt (L)	4 (3.8)

Air System

Maximum Ambient to Turbo Compressor Inlet	
Temperature Rise – °F (°C)	30 (16.7)
Maximum Air Intake Restriction:	
Clean Air Cleaner – in. H ₂ O (kPa)	12 (3.0)
Dirty Air Cleaner – in. H ₂ O (kPa)	20 (5.0)
Engine Air Flow – ft ³ /min (m ³ /min)	915 (25.9)
Manifold Pressure – in. Hg (kPa)	44.6 (15.1)
Recommended Intake Pipe Outer Diameter – in. (mm)	5 (127)
Maximum Intake Manifold Temperature – °F (°C)	150 (66)
Maximum Crankcase Pressure – in. H ₂ O (kPa)	3.0 (0.75)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min)	2170 (61.5)
Exhaust Temperature – °F (°C)	785 (418)
Maximum Back Pressure – in. Hg (kPa)	3.0 (10.1)
Recommended Exhaust Pipe Diameter – in. (mm)	5 (127)

Performance Data

Rated Power – bhp (kW)	415 (339)
Rated Speed – r/min	1800
BMEP – lb/in. ² (kPa)	235 (1620)
Friction Power – fhp (kW)	58 (43)
Altitude Capability – ft (m)	12000 (3660)

Fuel Consumption

Fuel – gal/hr (L/hr) – 10% Power	3.1 (11.7)
25% Power	5.3 (20.1)
50% Power	9.6 (36.3)
75% Power	14.0 (53.0)
100% Power	18.6 (70.4)

Emission Data

Certification	1997-98 Nonroad
Noise – db(A) @ 1m	102.4*
Smoke – Bosch Number	Not Available

	Load	10%	25%	50%	75%	100%	5 Mode Cycle g/bhp·hr
NO _x – g/hr		548	1056	1038	1670	2329	6.21
HC – g/hr		32	17	15	15	16	0.09
CO – g/hr		279	104	67	69	85	0.51
PM – g/hr		6.9	4.8	10.9	12.1	11.0	.046

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* Estimated

All values are at rated speed and power and with standard hardware, unless otherwise noted.

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