

Exclusively from your Caterpillar® dealer



STANDBY 90-150 kW PRIME 82.4-114 kW

60 Hz

Model	Standby kW (kVA)	Prime kW (kVA)
D90P1**	90 (112.5)	82.4 (103)
D100P1**	100 (125)	90 (112.5)
D100P4*	100 (125)	90 (112.5)
D125P1**	125 (156.3)	114 (142.5)
D125P2***	125 (156.3)	114 (142.5)
D150P1**	150 (188)	N/A

* Tier II EPA Approved, Emissions Certified

** 50 Hz option is available. Consult factory for more details.

*** Meets regulations under the transition provisions in paragraph 102 of the EPA regulations with the following statement:

THIS ENGINE IS CERTIFIED TO THE CURRENT MODEL YEAR REQUIREMENTS UNDER THE PROVISION OF 40CFR89.102

FEATURES

GENERATOR SET

- Complete system designed and built at ISO 9001 certified facilities
- Factory tested to design specifications at full load conditions

ENGINE

- Governor, electronic (D125P1, D125P2, D150P1)
- Governor, mechanical (D90P1, D100P1, D100P4)
- Electrical system, 12 VDC
- Cartridge type filters
- Battery(ies), rack and cables
- Coolant and lube drains piped to edge of base

GENERATOR

- Insulation system, class H
- Drip proof generator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, EN61000-6, IEC60034-1, NEMA MG-1.33

CONTROL SYSTEM

- 2001 Autostart control panel
- Vibration isolated NEMA 1 enclosure with lockable hinged door
- DC and AC wiring harnesses

MOUNTING ARRANGEMENT

- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Complete OSHA guarding
- Flexible fuel lines to base with NPT connections
- Stub-up pipe ready for connection to silencer pipework

COOLING SYSTEM

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 122° F (50° C)

CIRCUIT BREAKER

- UL/CSA listed
- 3-pole with solid neutral
- NEMA 1 steel enclosure, vibration isolated
- Electrical stub-up area directly below circuit breaker

AUTOMATIC VOLTAGE REGULATOR

- Voltage within ± 0.5% at steady state from no load to full load
- Provides fast recovery from transient load changes

EQUIPMENT FINISH

- All electroplated hardware
- Anticorrosive paint protection
- High gloss polyurethane paint for durability and scuff resistance

QUALITY STANDARDS

- BS4999, BS5000, BS5514, EN61000-6, IEC60034, NEMA MG-1.33, NFPA 110 (with optional equipment)

DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

WARRANTY

- All equipment carries full manufacturer's warranty.

STANDBY 90 - 150 kW
PRIME 82.4 - 114 kW
60 Hz

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OPTIONAL EQUIPMENT*

ENCLOSURE

- B Series weather protective enclosure (includes internal silencer system)
 - Single point lift
 - Panel viewing window
 - External emergency stop pushbutton
- Sound attenuated enclosure (includes internal silencer system)
- Super sound attenuated enclosure (includes internal silencer system) (D90P1, D100P1)

SILENCER SYSTEM — OPEN UNIT

- Level 1 silencer 10 dBA
- Level 2 silencer 25 dBA
- Level 3 silencer 35 dBA
- Mounting kit
- Through-wall installation kits

ENGINE

- Electronic governor (fully adjustable)
- Battery heater
- Lube oil drain pump
- High lube oil temperature shutdown
- Lube oil sump heater

CIRCUIT BREAKER

- Auxiliary voltfree contacts
- Shunt trip (100+ amp breakers)

GENERATOR

- Anti-condensation heater
- Permanent magnet generator
- AREP excitation system
- Generator upgrade 1 size - except D150P1

CONTROL SYSTEM

- No control system
- 4001 Series Autostart control panel
- 4001E Series Autostart control panel

MOUNTING ACCESSORIES

- Seismic Zone 4 vibration isolators

FUEL SYSTEM

- Metal fuel tank
- UL listed closed top-diked skid-mounted fuel tank base (12/24-hour capacity) with fuel alarm (low level/leak detected)
- Critical high fuel alarm
- Critical low fuel level shutdown

REMOTE ANNUNCIATORS

- 8- and 16-channel remote annunciator panel (supplied loose)
- Remote annunciator upgrade normal/run control switch
- Remote annunciator upgrade lockdown emergency stop button

COOLING SYSTEM

- Coolant heater
- Low coolant temperature alarm
- Low coolant level shutdown
- Radiator transition flange

MISCELLANEOUS ACCESSORIES

- Toolkit
- Additional operator's manual pack
- Special enclosure color
- UL listing
- CSA certification
- French or Spanish language labels

EXTENDED SERVICE CONTRACTS

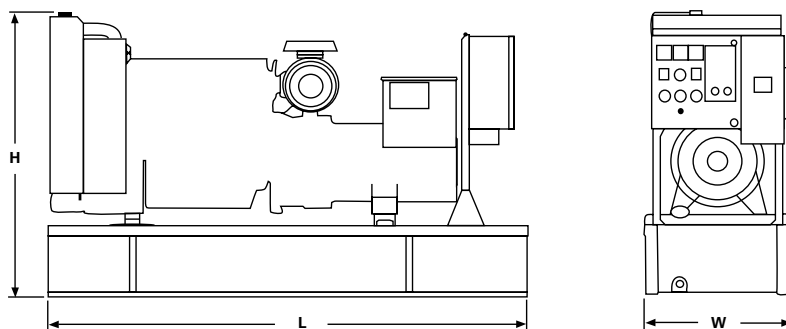
- Extended Service Coverage available

TESTING

- Factory witness test (restricted to 6 hours — full load, 1.0 pf)

*Some options may not be available on all models. Not all options are listed.

GENERATOR SET DIMENSIONS AND WEIGHTS



Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs (kg)**
D90P1	97.7 (2481)	29.4 (746)	56.4 (1433)	2778 (1260)
D100P1	97.7 (2481)	29.4 (746)	56.4 (1433)	2778 (1260)
D100P4	92.4 (2347)	43.3 (1100)	52.0 (1321)	3157 (1432)
D125P1	105 (2675)	35.4 (900)	57.5 (1460)	3263 (1480)
D125P2	105 (2675)	35.4 (900)	57.5 (1460)	3131 (1420)
D150P1	105 (2675)	35.4 (900)	57.5 (1460)	3384 (1535)

NOTE: General configuration not to be used for installation. See specific dimensional drawings for detail.

**Includes oil and coolant
 ∞ Estimated weight

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PRIME 82.4 - 114 kW
60 Hz

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SPECIFICATIONS



GENERATOR

Voltage Regulation ±0.5% at steady state from no load to full load
 Frequency .. ±0.8% (models with mechanical governor) ±0.25% (models with electronic governor) for constant load, no load to full load
 Waveform Distortion THD < 4%, at no load
 Radio Interference Compliance with EN61000-6
 Telephone Interference TIF <50, THF <2%
 Overspeed Limit..... 2250 rpm
 Insulation Class H
 Temperature Rise Within Class H limits
 Available Voltages 277/480, 266/460, 120/240, 127/220, 120/208, 347/600
 Deration..... Consult factory for available outputs
 Ratings At 86° F (30° C), 500 ft. (152.4 m), 60% humidity, 0.8 pf



ENGINE

D90P1, D100P1, D125P1, D125P2 D150P1 — 1006

Manufacturer Perkins
 Type..... 4-Cycle
 Cylinder Configuration In-line 6
 Displacement — cu in (L) 365 (5.99)
 Bore — in (mm) 3.94 (100.0)
 Stroke — in (mm) 5.00 (127.0)
 Compression Ratio
 D90P1, D100P1 16.0:1
 D125P1, D125P2, D150P1 17.0:1
 Governor
 Type Mechanical/Electronic
 Class A1/G2
 Piston Speed — ft/sec (m/sec)..... 25.0 (7.62)
 Engine speed — rpm..... 1800
 Air Cleaner Type Dry, replaceable paper element type with restriction indicator
 Regenerative Power — kW 16.2

D100P4 — 1104

Manufacturer Perkins
 Type..... 4-Cycle
 Cylinder Configuration In-line 4
 Displacement — cu in (L) 268.5 (4.4)
 Bore — in (mm) 4.13 (105)
 Stroke — in (mm) 5.00 (127)
 Compression Ratio 19.3:1
 Governor
 Type Electronic
 Class A1
 Piston Speed — ft/sec (m/sec)..... 25.0 (7.62)
 Engine speed — rpm..... 1800
 Air Cleaner Type Dry, replaceable paper element type with restriction indicator
 Regenerative Power — kW 16.2

RATING DEFINITIONS

Standby — Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator is peak rated (as defined in ISO8528-3).

D90P1 — 1006TG1A

Max Power at Rated rpm — hp (kW)
 Standby 149.8 (111.7)
 Prime 136.2 (101.6)
 BMEP — psi (kPa)
 Standby..... 182 (1259)
 Prime 164 (1133)
 Aspiration..... Turbocharged

D100P1 — 1006TG2A

Max Power at Rated rpm — hp (kW)
 Standby..... 166 (124)
 Prime 151 (112)
 BMEP — psi (kPa)
 Standby..... 202 (1393)
 Prime 182 (1253)
 Aspiration..... Turbocharged

D100P4 — 1104C-TAG2

Max Power at Rated rpm — hp (kW)
 Standby 157.5 (117.5)
 Prime 143.2 (106.9)
 BMEP — psi (kPa)
 Standby 258 (1780)
 Prime 235 (1618)
 Aspiration Turbocharged

D125P1 — 1006TAG

Max Power at Rated rpm — hp (kW)
 Standby 212.1 (158.5)
 Prime 193.8 (144.2)
 BMEP — psi (kPa)
 Standby..... 266 (1836)
 Prime 234 (1610)
 Aspiration Turbocharged, AA Charge Cooled

D125P2 — 1006-6TA

Max Power at Rated rpm — hp (kW)
 Standby 212.1 (158.5)
 Prime 193.8 (144.2)
 BMEP — psi (kPa)
 Standby..... 266 (1836)
 Prime 233 (1610)
 Aspiration Turbocharged, AA Charge Cooled

D150P1 — 1006TAG1

Max Power at Rated rpm — hp (kW)
 Standby..... 244 (182)
 Prime N/A
 BMEP — psi (kPa)
 Standby 294 (2026)
 Prime N/A
 Aspiration Turbocharged, AA Charge Cooled



CONTROL PANEL

NEMA 1 steel enclosure with lockable hinged door
 Vibration isolated mounted Autostart control panel
 Single location customer connector point
 Electrical stub-up area directly below control panel

Prime — Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and the generator set can supply 10 percent overload power for 1 hour in 12 hours.

Consult your Olympian representative for more information.

STANDBY 100 kW
PRIME 90 kW
60 Hz

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D100P1 (3-Phase)

Materials and specifications are subject to change without notice.

Generator Set Technical Data — 1800 rpm/60 Hz		Standby	Prime
Power Rating	kW (kVA)	100 (125.0)	90 (112.5)
Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Cooler: Watercooled Oil Type Required: API CF-4 Total Oil Capacity Oil Pan	U.S. gal (L) U.S. gal (L)	4.3 (16.1) 3.5 (13.1)	4.3 (16.1) 3.5 (13.1)
Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load	G/hr (L/hr) G/hr (L/hr) G/hr (L/hr)	8.07 (30.53) 6.19 (23.42) 4.48 (16.95)	7.30 (27.63) 5.54 (20.99) 4.01 (15.19)
Engine Electrical System Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating	Amps	45	45
Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load	U.S. gal (L) Ft H ₂ O (m H ₂ O) U.S. gal/hr (L/hr) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW)	7.3 (27.7) 26.2 (8.0) 2664 (10 080) 158 (70) 13.9 (7.7) 4550 (80.0) 2361 (41.5) 9.8 (7.3)	7.3 (27.7) 26.2 (8.0) 2664 (10 080) 158 (70) 13.9 (7.7) 4095 (72.0) 1917 (33.7) 9.8 (7.3)
Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction	Cfm (m ³ /min) In H ₂ O (kPa) Cfm (m ³ /min) Cfm (m ³ /min) In H ₂ O (kPa) Cfm (m ³ /min)	275 (7.8) 20 (5.0) 9205 (263) 933 (26.4) 0.50 (0.125) 7065 (244)	261 (7.4) 20 (5.0) 9205 (263) 933 (26.4) 0.50 (0.125) 7065 (244)
Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust	In Hg (kPa) Cfm (m ³ /min) °F (°C)	1.8 (6.0) 794 (22.5) 1076 (580)	1.8 (6.0) 705 (20.0) 1004 (540)
Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m)	dB(A)	95	95

Generator Technical Data	277/480V	266/460V	127/220V	120/240V 120/208V	347/600V
Motor Starting Capability: (kVA) (30% Voltage Dip)					
Self Excited	206	191	177	160	N/A
PM Excited**	271	252	233	211	271
AREP Excited	271	252	233	211	271
Full Load Efficiencies:					
Standby	91.0	90.9	90.5	90.0	91.0
Prime	91.4	91.0	90.9	90.4	91.4
Reactances (per unit):					
X _d	3.58	3.90	4.26	4.77	3.58
X' _d	0.14	0.15	0.17	0.19	0.14
X'' _d	0.083	0.091	0.099	0.111	0.083
X _q	2.15	2.34	2.56	2.86	2.15
X'' _q	0.104	0.113	0.123	0.138	0.104
X ₂	0.094	0.102	0.112	0.125	0.094
X ₀	0.005	0.005	0.006	0.006	0.005
Time Constants:	t' _d 100 ms	t'' _d 10 ms	t' _{do} 2555 ms	t _a 15 ms	

* dB(A) levels are for guidance only