



Category: Power Generators

Caterpillar 3512B - Diesel Power Generator (50 Hz, 1600-1875 kVA)

Caterpillar 3512B Diesel Generator

Ratings & Electrical

- **Prime Power:** 1600 kVA / 1280 kW
- **Standby Power:** 1875 kVA / 1500 kW
- **Frequency:** 50 Hz
- **Speed:** 1500 rpm
- **Voltage:** 400/230 V (3-phase)
- **Power Factor:** 0.8 (lagging)
- **Alternator Insulation:** Class H
- **Voltage Regulation:** $\pm 1\%$

Engine / Mechanical

- **Engine Model:** CAT 3512B Diesel Engine
- **Configuration:** 4-stroke, 12-cylinder, V-type, turbocharged & aftercooled
- **Displacement:** 58.6 L
- **Bore × Stroke:** 170 mm × 190 mm
- **Compression Ratio:** 13.5 : 1
- **Lubricating Oil Capacity:** ~900 L
- **Coolant Capacity:** ~600 L

Fuel & Consumption

- **Fuel Type:** Diesel
- **Fuel Consumption @100% Load:** ~420–490 L/h
- **Fuel Consumption @75% Load:** ~315–370 L/h
- **Fuel Tank Capacity:** ~6000 L (typical enclosure)

Cooling, Exhaust & Air

- **Exhaust Gas Temperature:** ~600–650 °C
- **Exhaust Gas Flow:** ~180–200 m³/min
- **Max Exhaust Back Pressure:** 10 kPa
- **Cooling System:** Radiator-cooled, tropical rating

Physical Dimensions & Weight

- **Dimensions (L × W × H):** ~6700 mm × 2600 mm × 3100 mm
- **Weight (approx.):** ~18000–19000 kg (open set)

Alternator & Control

- **Alternator Frame:** Caterpillar or equivalent, Class H insulation
- **Control Panel:** Caterpillar electronic controller
- **Features:** Monitoring, protection & optional auto-start/stop