



Category: Power Generators

Caterpillar C175-20 - Diesel Power Generator (50 Hz, 3900-4000 kVA)

Caterpillar C175-20 Diesel Generator

Ratings & Electrical

- **Prime Power:** 3120 kVA / 2496 kW (with fan)
- **Standby Power:** 3900 kVA / 3120 kW (with fan)
- **Prime Power:** 3200 kVA / 2560 kW (without fan)
- **Standby Power:** 4000 kVA / 3200 kW (without fan)
- **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 C175-20 Diesel Engine
- **Configuration:** 4-stroke, 20-cylinder, V-type, turbocharged & aftercooled
- **Displacement:** 250 L
- **Bore × Stroke:** 175 mm × 220 mm
- **Compression Ratio:** 13.5 : 1
- **Lubricating Oil Capacity:** ~2200 L
- **Coolant Capacity:** ~1500 L

Fuel & Consumption

- **Fuel Type:** Diesel
- **Fuel Consumption @100% Load:** ~1400-1450 L/h
- **Fuel Consumption @75% Load:** ~1050-1100 L/h
- **Fuel Tank Capacity:** ~15000 L (typical enclosure)

Cooling, Exhaust & Air

- **Exhaust Gas Temperature:** ~750-800 °C
- **Exhaust Gas Flow:** ~350-380 m³/min
- **Max Exhaust Back Pressure:** 10 kPa
- **Cooling System:** Radiator-cooled (with fan) / optional air-cooled (without fan), tropical rating

Physical Dimensions & Weight

- **Dimensions (L × W × H):** ~9000 mm × 3200 mm × 4000 mm
- **Weight (approx.):** ~38000-40000 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