

## GENERAL DESCRIPTION:

Caterpillar 3516 BSFC | 1600kW/2000kVA | prime rated at 480Y/277 volt | 60 hertz open diesel generator set.

## STANDARD CONSIST:

### AIR INLET SYSTEM

Air cleaner; single element canister type with service indicator CONTROL PANELS Control Panel\*

EMCP4.2 controls including:

Emergency stop pushbutton

EMCP4.2 controller including:

24-volt DC operation

Environmental sealed front face

Text alarm/event descriptions

Generator mounted - rear facing

### **Controls:**

Speed adjust

Auto/start/stop control

Engine cool-down timer

Engine cycle crank

Alarm acknowledge

Lamp test

True RMS AC metering, 3-phase, +/-2% accuracy

### **Digital indication for:**

RPM

DC volts

Operating hours

Oil pressure (psi, kPa or bar)

Coolant temperature

Volts (L-L & L-N), frequency (Hz)

Amps (per phase & average)

Power Factor (per phase & average)

kW (per phase, average & percent)

kVA (per phase, average & percent)

kVAr (per phase, average & percent)

kW-hr (total)

kVAr-hr (total)

Warning/shutdown with common LED indication of shutdowns for:

- Low oil pressure
- High coolant temperature
- Overspeed
- Emergency stop
- Failure to start (overcrank)
- Low coolant temperature
- Low coolant level

### **Programmable protective relaying functions:**

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under Frequency (81 o/u)
- Reverse Power (kW) (32)
- Reverse Reactive Power (kVAr) (32RV)
- Overcurrent (50/51)

**Communications:**

- Customer data link (Modbus RTU)
- Accessory module data link
- Serial annunciator module data link
- 6 programmable digital inputs
- 4 programmable relay outputs (Form A)
- 2 programmable relay outputs (Form C)
- 2 programmable digital outputs

**COOLING SYSTEM**

See TMI for heat rejection pump performance, air flow, and ambient capability information. JWAC.

Radiator fan and fan drive

Fan and belt guards

Coolant drain line with valve

Coolant level sensors\*\*

Caterpillar Extended Life Coolant\*\*\*

**EXHAUST SYSTEM**

Dry exhaust manifold

Flanged faced outlet(s) FUEL SYSTEM

Secondary fuel filters

Fuel cooler; not included with packages without radiator

Flexible fuel lines - shipped loose

Fuel priming pump

**GENERATORS AND GENERATOR ATTACHMENTS**

3 phase brushless, salient pole

Internal excitation

6 lead

Generator set packages include Caterpillar's Digital Voltage Regulator (CDVR) o CDVR includes reactive droop capability, 3-phase voltage sensing, KVAR/PF modes, RFI suppression, min/max exciter.

LV/MV:

Random wound

Internal Excitation

NEMA Class H insulation, Class H temperature rise at 40C ambient (125C prime/150C standby)

Reactive droop

Bus bar connections, top center mounted, top cable entry.

60 Hz models: NEMA standard hole pattern

Note: 1800 frames are form wound, permanent magnet, with winding temp detectors

**GOVERNING SYSTEM**

Woodward 2301A speed control governor – isochronous LITERATURE

English (other languages available) LUBE SYSTEM

Lubricating oil

Gear type lube oil pump

Integral lube oil cooler

Oil filter, filler and dipstick

Oil drain lines and valve

Fumes disposal lines (shipped loose)

**MOUNTING SYSTEM**

Rails - engine/generator/radiator mounting

Rubber anti-vibration mounts (shipped loose)

**STARTING/CHARGING SYSTEM**

24-volt electric starting motor

Battery and battery rack w/cables