

PRODUCT SPECIFICATIONS FOR C18 (60 HZ) TIER 4

GENERATOR SET SPECIFICATIONS

Minimum Rating	455 ekW
Maximum Rating	500 ekW
Emissions/Fuel Strategy	U.S. EPA Tier 4 Final
Voltage	480 Volts
Frequency	60 Hz
Speed	1800 rpm
Duty Cycle	Standby, Prime

ENGINE SPECIFICATIONS

Engine Model	C18 ATAAC, I-6, 4-Stroke Water-Cooled Diesel
Bore	1455.7 in
Stroke	7.2 in
Displacement	1106.4 in ³
Compression Ratio	14.5:1
Aspiration	Air to Air Aftercooled
Fuel System	Electronic unit injection
Governor Type	Adem™ A4

C18 (60 HZ) TIER 4 STANDARD EQUIPMENT

AIR INLET

Air Cleaner

EXHAUST SYSTEM

Exhaust manifold; dry

COOLING

COOLING

Package mounted radiator

FUEL SYSTEM

Fuel cooler

Engine fuel transfer pump

Primary fuel filter w/integral water separator & secondary filter

Fuel priming pump

Flexible fuel lines

EXHAUST

Exhaust flange outlet

FUEL

Primary fuel filter with integral water separator

Fuel priming pump

Secondary fuel filter

GENERATOR

Matched to the performance and output characteristics of Cat engines

IP23 Protection

Load adjustment module provides engine relief upon load impact and improves load acceptance and recovery time

POWER TERMINATION

Bus Bar

LUBE SYSTEM

Oil filter and dipstick

Lubricating oil

Oil drain lines with valve; piped to edge of base

Fumes disposal; piped to front of radiator

Oil cooler

CONTROL PANEL

EMCP 4 Genset Controller

MOUNTING

Rubber vibration isolators

PROTECTION SYSTEM

Safety shutoffs for: Higher water temperature - Overspeed - Low oil pressure

COOLING SYSTEM

Thermostats and housing, full open temperature 92 deg C (198 deg F)

Coolant Level Sensor

Coolant level sight gauge.

Fan and belt guards

Jacket water pump, gear driven, centrifugal

Coolant drain line with valve; terminated on edge of base

Caterpillar Extended Life Coolant

STARTING/CHARGING

24V, 45 amp charging alternator.

24-volt electric starting motor

24 volt starting motor

Batteries

GENERAL

Paint - Caterpillar Yellow except rails and radiators gloss black

Paint, Caterpillar yellow

Operation and maintenance manual pack and OMM Storage Compartment

Parts book

Vibration damper

CONTROL SYSTEM

Local annunciator

Programmable Input / Output: 2 programmable digital inputs - 2 programmable relay outputs (Form A) - 2 programmable relay outputs (Form C)

Suitable for use as service equipment label

Separation plate

Control panel mounting location

Control panel mounting location

Breaker box mounting location

Optional external analog input

Remote annunciators

EMCP 4.2

Communications: Customer data link (RS485 Modbus RTU) - Serial annunciator module data link for local and remote annunciator IVR - Integrated Voltage Regulation (Digital) - EM10 Excitation Module

Controls include: Run / auto / stop control - Speed adjust - Voltage adjust - Engine cycle crank - Emergency stop pushbutton

Digital indication for: rpm - DC volts - operating hours - Oil pressure (psi, kPa or bar) - Coolant temperature (C or F) - Volts (L-L & L-N), frequency (Hz) - Amps (per phase & average) - Power factor (per phase & average) - kW (per phase & average) - kVA (per phase & average) - kVAr (per phase and average) - kW-hr (total) - kVAr-hr (total)

Programmable protective relaying functions: Generator phase sequence - Over / Under voltage (27/59) - Under frequency (81 o/u) - Overcurrent (50/51)

Warning / Shutdowns 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

Control panel options: Dust proof control panel - volt free contact - Device server - Ground fault relay

GOVERNING SYSTEM

Cat Electronic Governor (ADEM A4)

GENERATOR AND ATTACHMENTS

Segregated low voltage (AC/DC) wiring panel

Brushless, self-excited 2/3 pitch, random wound.

Insulation Class H and temperature rise

AREP generator

CIP - generators

IP23 Protection

Power center, IP22 bottom cable entry

AIR INLET SYSTEM

Single element air filter

Air cleaner - Heavy duty

Air cleaner - Single element

EXTENDED SERVICE COVERAGE

Silver, Gold and Platinum coverage

CIRCUIT BREAKERS

3 Pole 100% rated

C18 (60 HZ) TIER 4 OPTIONAL EQUIPMENT

CONTROL SYSTEM

Ground fault relay

Dust proof control panel

Breaker box mounting location

Volt free contact

Device server

Separation plate

Remote annunciators

EMCP 4.4

Local annunciator

Remote E-stop button

Optional external analog input

Control panel mounting

EXHAUST

Industrial, Residential, Critical Mufflers

GENERATOR

Anti-condensation heater

Excitation: []Permanent Magnet Excited (PM) []Internally Excited (IE)

Oversize and premium generators

POWER TERMINATION

Circuit breakers, UL listed

GENERATORS AND ATTACHMENTS

AREP Generator

CIP generators

Space heater

Generator mounting and duct plate

AIR INLET SYSTEM

Single element air filter

Dual element air cleaner

CERTIFICATIONS

Certificate of compliance

IBC certification wind load

CIRCUIT BREAKERS

Motorized single circuit breaker

Neutral bars

Power cables

Dual breakers first circuit breaker (CB2) LS/I package mounted

Current transformers

Package mounted single circuit breakers

Dual breakers first circuit breaker (CB1) LS/I package mounted

Auxiliary contacts

COOLING SYSTEM

Aftertreatment guard

Standard radiator

ENCLOSURES

Sound attenuated enclosures

EXHAUST SYSTEM

Flange kits

Exhaust flexible fittings

FUEL SYSTEM

660 gallon base tank

GENERATOR ATTACHMENTS

Permanent magnet generator

MOUNTING SYSTEM

Standard base Wide

5 gallon spill containment

Optional CB shroud

Overfill prevention valve

Locking fuel fill

STARTING / CHARGING SYSTEM

Battery disconnect switch

Jacket water heater

Shore power control group

10 Amp dual battery charger

TESTS

PGS test report @ 0.8 power factor

4 Hour factory test (un-witnessed)

PGS test report @ 1.0 power factor

Generator test report