

### **Generator Set Specification**

Furnish and install one (1) new Cummins generator set, model C150N6, rated 150 KW, 120/208 volt, 3 phase, 4 wire, 60 hertz, 1800 RPM, for operation on natural gas fuel with LP gas automatic changeover, as distributed by Cummins Sales and Service, 890 Zerega Avenue, Bronx, NY, phone 718-502-1274. Local service organization shall be factory owned and operated. Generator package to include the factory standard accessories plus the following:

- EPA emission certified.
- Minimum 543 cubic inch, 8.9 liter gas engine
- Fuel consumption shall not exceed 1,915 CFH at full load on natural gas
- Fuel consumption shall not exceed 783 CFH at full load on LP gas
- Engines to operate on fuel pressure between 6 to 13 inches of water column
- 12 Volt starting system, with lead acid battery, rack and cables
- 100 amp battery charging alternator
- 6 Amp minimum, 12VDC, 120 VAC, battery chargers, mounted within the enclosure
- Critical exhaust silencer, mounted within the enclosure
- Engine jacket water heaters, 1,500 watt, 240 VAC
- High ambient engine mounted radiator and fan, rated at 45 degree C ambient within the level 2 factory housing
- Vibration isolators, internal pad type
- Unit mounted Onan UL 508 listed PowerCommand Control Panel featuring a microprocessor based digital control system with the following:
  - NEMA 3R controller enclosure
  - Over current and short circuit protection
  - Single or 3-phase fault regulation
  - Overload warning
  - Reverse power and reverse VAR shutdowns
  - Excitation fault
  - Digital display panel
  - Cyclic cranking control, adjustable
  - Idle mode control
  - Self diagnostics with LED's for self test
  - Run-off-auto switch
  - Emergency stop switch
  - Voltmeter/ammeter phase selector switch
  - Panel lights with 10 minute auto switch
  - Digital AC voltage line to line and line to neutral
  - Digital AC current by phase
  - Digital AC kilowatts (total and individual phase)

- Digital AC kVA (total and individual phase)
- Digital AC kilowatt hours and digital AC power factor
- Digital engine oil pressure and oil temperature
- Digital engine coolant temperature
- Digital engine RPM (tachometer)
- Digital DC battery voltage
- Digital engine starts counter
- Digital engine running hours
- Start attempt display
- KW hours (total since reset)
- Load profile display
- Low oil pressure shutdown and pre-alarm
- High engine temperature shutdown and pre-alarm
- Low coolant level shutdown
- Overspeed shutdown
- Fail to crank and fail to start (overcrank) shutdowns
- Oil pressure sender and water temperature failure warnings
- Alternator overcurrent, low engine temperature warnings
- Engine overload warning with load shed
- High, low and weak battery voltage warnings
- Dead battery shutdown
- Four (4) customer selected shutdowns or warnings
- Over and under AC voltage and frequency shutdowns
- Remote Annunciator panel
- Mainline circuit breaker, rated 600 amps, mounted in a NEMA I enclosure, complete with neutral connection block
- Isochronous electronic governor
- PMG exciter
- The generator shall have a minimum of 920 starting KVA available at 90% recovery voltage in compliance with NEMA MG1
- Alternator with 80 Degree rise maximum (alternator rated 170KW minimum at 208 volts and 80 degree rise
- Weather protective sound attenuated aluminum housing, rated at a maximum of 71.3 dBA at 7 meters.
- Generator enclosure overall dimensions shall not exceed 40"W x 160"L x 72"H (to exhaust outlet).
- Provide a flexible fuel line, and a fuel strainer for each fuel source
- Two year comprehensive type limited warranty, covering parts and labor for the full two years, includes generator set, enclosure and automatic transfer switch

- Lube oil and antifreeze
- Factory testing at 0.8 power factor
- Startup with a two (2) hour resistive loadbank test

### **Automatic Transfer Switch Specification**

Furnish and install one (1) new automatic transfer switch, Cummins/Onan model OTPC, as distributed by Cummins Sales and Service, Bronx, NY (phone 718-502-1274), rated 800 amps, 3 pole, 208 volts, 3 phase, 60 Hz, NEMA I enclosure, including the following:

- Over and under voltage and frequency sensing of both sources
- Withstand and closing rating of 65KAIC
- Three phase adjustable undervoltage sensors with dropout time delay
- Three phase normal and emergency voltage sensing
- Digital display panel
- Level II microprocessor controller
- Adjustable time delays stop, transfer, retransfer and stop
- Programmable plant exerciser with load selector switch
- Time delay neutral (programmed transition), with adjustable timer
- Switch position and source available lights
- Two (2) mainshaft auxiliary contacts
- Adjustable voltage imbalance sensing with adjustable time delay
- Two year parts and labor warranty
- Field start up by manufacturer's trained service technician