

Natural or Propane Gas Engine (For Standby Generators ≤ 150 kVA)

Include liquid cooled, spark ignition engine.

Furnish engine and cooling system capable of driving generator at specified load for minimum of 120 minutes, taking into account fuel type and altitude duration and at maximum ambient temperature of 122 °F (50 °C).

Isochronous Governor: Speed regulation plus or minus 0.25 cycle from no load to full load with two-second recovery to steady state.

Integral 10-amp system battery charging system, unit mounted to maintain emergency system batteries at required charge levels.

Listed Fuel Systems

Include CSA Certified Listed Natural Gas regulator for 7-14" water column gas pressure entering, complete with the following cUL Listed installation accessories:

- Flexible engine connection fuel line
- Electric fuel solenoid valve
- Fuel line strainer

Dual Fuel Systems

~~Include the following:~~

~~cUL Listed Natural gas regulator for 7-14" water column gas pressure entering complete with the following cUL Listed installation accessories:~~

- ~~• Flexible engine connection fuel line~~
- ~~• Electric fuel solenoid valve~~
- ~~• Fuel line strainer~~

~~cUL Listed LP vapour regulator complete with the following cUL listed installation accessories:~~

- ~~• Flexible engine connection fuel line~~
- ~~• Electric fuel solenoid valve~~
- ~~• Fuel line strainer~~

Accessories

Include replaceable type oil filters, dry type air cleaners, automatic choke, lubricating oils, greases, and coolant.

Alternator

The alternator (generator) shall be 120/208 or 347/600 Volt, 3 phase, 4 wire, 60 Hz AC, drip

proof, rotating field type with an integral exciter of the brushless or static type and a static voltage regulator utilizing silicon rectifiers on solid state amplifiers.

Voltage regulation shall be within plus or minus 2% of rated voltage for all loads from no load to full load. Output voltage shall be manually adjustable over a range of plus or minus 5% of rated voltage.

Rotors shall be salient pole type with amortisseur windings. The generator shall include for 300% short circuit capability for 10 seconds.

Engine-Generator Mounting

The engine and generator shall be aligned and mounted on a common fabricated steel base of sufficient rigidity to maintain adequate alignment. Approved adjustable steel spring vibration isolators shall be supplied with such set by the set manufacturer.

Control Panel

Environmentally sealed, solid state, microprocessor-based module for engine control, monitoring, protection, and metering.

The controller shall meet the CSA (Z462). The controller shall be listed under ULC and UL-508. Set-mounted controller capable of facing right, left, or rear shall be vibration isolated on the generator enclosure. Remote-mounted controller shall also be supplied.

The microprocessor control board shall be moisture proof and capable of operation from -40° C to 85° C. Relays will only be acceptable in high-current circuits.

The unit must be able to interface easily to provide remote monitoring and control capabilities over the Metrolinx Windows based Network. Monitoring shall include, but not be limited to, the following:

- Dual range voltmeter +/- 2% accuracy
- Maximum demand ammeter +/- 2% accuracy
- Voltmeter-ammeter 3 phase selector switch
- Battery charging voltmeter and AMP
- Coolant temperature reading
- Oil pressure reading
- Running time