

# CATERPILLAR GENERATOR SET – C7.1 - 150



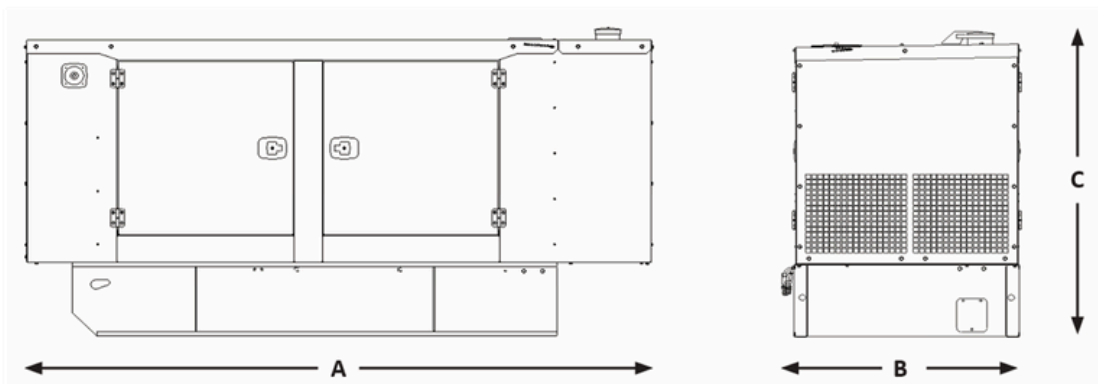
**Standby and Prime: 50 Hz**



|                       |                                       |
|-----------------------|---------------------------------------|
| Engine Model          | Cat® C7.1 Inline 4-stroke Diesel      |
| Bore x Stroke         | 105.0 mm x 135.0 mm (4.1 in x 5.3 in) |
| Displacement          | 7.0 L (427.8 in³)                     |
| Compression Ratio     | 16.0:1                                |
| Aspiration            | Turbocharged Air To Air Charge Cooled |
| Fuel Injection System | Inline                                |
| Governor              | Mechanical - G2 Class* capable        |

| Model           | Standby         |                 | Prime (SRR)     | Emission Strategy |
|-----------------|-----------------|-----------------|-----------------|-------------------|
|                 | 50 Hz kVA (ekW) | 60 Hz kVA (ekW) | 50 Hz kVA (ekW) |                   |
| <b>DE165 GC</b> | 165 (132)       | 185.5 (150)     | 148.5 (118.8)   | Low BSFC          |

## WEIGHTS & DIMENSIONS



**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

| Length "A"<br>mm (in) | Width "B"<br>mm (in) | Height "C"<br>mm (in) | Dry Weight*<br>kg (lb) |
|-----------------------|----------------------|-----------------------|------------------------|
| 3325 (130.9)          | 1134 (44.6)          | 1666 (65.6)           | 1834 (4043.3)          |

\*Weight includes standard generator, Enclosure and Integral Tank base

**PACKAGE PERFORMANCE**

| Performance  | Standby               |              | Prime (SRR) |                 |        |        |        |        |
|--|-----------------------|--------------|-------------|-----------------|--------|--------|--------|--------|
|  | 50 Hz                 | 60 Hz        | 50 Hz       |                 |        |        |        |        |
| Genset power rating  | 165 kVA               | 187.5 kVA    | 148.5 kVA   |                 |        |        |        |        |
| Genset power rating with fan @ 0.8 power factor                  | 132 ekW               | 150 ekW      | 118.8 ekW   |                 |        |        |        |        |
| Emissions  | Low BSFC              |              |             |                 |        |        |        |        |
| Performance number   | P4200A                | P4202A       | -           |                 |        |        |        |        |
| <b>Fuel Consumption</b>  |                       |              |             |                 |        |        |        |        |
| Fuel tank capacity, L (gal)                                      | 325 (85.9)            |              |             |                 |        |        |        |        |
| 100% load with fan, L/hr (gal/hr)                                | 35.1 (9.3)            | 41.1 (10.9)  | 33.2 (8.8)  |                 |        |        |        |        |
| 75% load with fan, L/hr (gal/hr)                                 | 27.2 (7.2)            | 31.9 (8.4)   | 24.8 (6.6)  |                 |        |        |        |        |
| 50% load with fan, L/hr (gal/hr)                                 | 18.3 (4.8)            | 21.8 (5.8)   | 17.4 (4.6)  |                 |        |        |        |        |
| <b>Cooling System<sup>1</sup></b>                                |                       |              |             |                 |        |        |        |        |
| Radiator air flow, m <sup>3</sup> /min (CFM)                     | 259 (9147)            | 318 (11230)  | 259 (9147)  |                 |        |        |        |        |
| Total coolant capacity, L (gal)                                  | 21.0 (5.5)            |              |             |                 |        |        |        |        |
| <b>Inlet Air</b>   |                       |              |             |                 |        |        |        |        |
| Max. combustion air intake restriction, kPa (in. water)          | 5.0 (20.1)            |              |             |                 |        |        |        |        |
| Combustion air inlet flow rate, m <sup>3</sup> /min (CFM)        | 10.7 (377)            | 15.0 (529)   | 8.1 (286)   |                 |        |        |        |        |
| <b>Exhaust System</b>  |                       |              |             |                 |        |        |        |        |
| Exhaust stack gas temperature, °C (°F)                           | 484 (903)             | 407 (765)    | 464 (868)   |                 |        |        |        |        |
| Exhaust gas flow rate, m <sup>3</sup> /min (CFM)                 | 25.5 (902)            | 32.2 (1137)  | 24.0 (844)  |                 |        |        |        |        |
| Exhaust system backpressure (maximum allowable), kPa (in. water) | 6.0 (1.8)             |              |             |                 |        |        |        |        |
| <b>Heat Rejection</b>  |                       |              |             |                 |        |        |        |        |
| Heat rejection to jacket water, kW (BTU/min)                     | 75.7 (4305)           | 80.1 (4555)  | 72.0 (4094) |                 |        |        |        |        |
| Heat rejection to alternator, kW (BTU/min)                       | 10.2 (580)            | 11.1 (631)   | 10.2 (580)  |                 |        |        |        |        |
| Heat rejection to atmosphere from engine, kW (BTU/min)           | 12.2 (694)            | 12.3 (699)   | 11.0 (625)  |                 |        |        |        |        |
| Heat rejection to exhaust (total), kW (BTU/min)                  | 105.6 (6005)          | 120.6 (6858) | 96 (5494)   |                 |        |        |        |        |
| <b>Alternator<sup>2</sup></b>                                    |                       |              |             |                 |        |        |        |        |
|  | 50 Hz (Standby/Prime) |              |             | 60 Hz (Standby) |        |        |        |        |
| Voltages   | 380                   | 415          | 400         | 480             | 440    | 220    | 380    | 240    |
| Motor starting capability @ 30% Voltage Dip, skVA                | 378                   | 453          | 419         | 504             | 425    | 425    | 316    | 377    |
| Current, Amps  | 247 / 222             | 228 / 205    | 236 / 212   | 225.5           | 245    | 490    | 255    | 437    |
| Temperature Rise, °C   | 163/27                | 163/27       | 163/27      | 130/40          | 163/27 | 163/27 | 163/27 | 163/27 |
| Frame Size   | A2625L41              |              |             |                 |        |        |        |        |
| Excitation   | S.E                   |              |             |                 |        |        |        |        |