

Technical data Diesel Generator Set

CAT C7.1 / DE175E3

| | Prime | Standby |
|---------------------------------|------------------------|---------|
| Feature Code | - | C07DE98 |
| Performance No. | - | P4390B |
| Power Rating | kVA 160.0 | 175.0 |
| Power Rating @ 0.8 Power Factor | KW 128.0 | 140.0 |
| Voltage | V | 400 |
| Frequenz | Hz | 50 |
| Power Factor | | 0.8 |
| Radiator | | Yes |
| Combustion Strategy | Emission EU Stage IIIA | |
| ISO | 3046 / 8528 | |



| Diesel Engine | | |
|-------------------------------|---------------------------|----------|
| Brand | Caterpillar | |
| Type | C7.1 | |
| No. of Cylinders | 6 | |
| Cylinders Alignment | L | |
| Cycle | 4-Stroke | |
| Cooling Method | Water-cooled | |
| Turbo Configuration | Single | |
| Turbo Quantity | 1 | |
| Fuel | Diesel | |
| Speed | rpm | 1'500.0 |
| Bore | mm | 105.0 |
| Stroke | mm | 135.0 |
| Displacement | L | 7.0 |
| Compression Ratio | 16.8:1 | |
| Piston speed | m/s | 6.75 |
| Mean effective pressure (PME) | bar | 16.90 |
| Aspiration | Air-toAir Aftercooled | |
| Fuel System | Electronic unit injection | |
| Base Tank Capacity | 437 | |
| Jacket Water heaters | V / kW | 230 / 3 |
| Starting Motor | V / kW | 12 / 7 |
| Battery Type | 9X9730 | |
| Battery Quantity | 1 | |
| Capacity Battery | V / Ah | 12 / 190 |
| Capacity Battery total | V / Ah | 12 / 190 |

| Generator | | |
|------------------------------------|--|---------|
| Brand | Caterpillar | |
| Type / Frame | R2453L4 | |
| Excitation | Self Excited | |
| Pitch | 0.6667 | |
| Number of Poles | 4 | |
| Number of Bearings | 1 | |
| Number of Leads | 12 | |
| Insulation | Class H | |
| IP Rating | IP23 | |
| Nominal Speed | rpm | 1'500.0 |
| Over Speed capability | % | 150.0 |
| Wave form Deviation (Line to Line) | % | 2.0 |
| Voltage Regulator | 3 Phase sensing with selectable volts/Hz | |
| Voltage regulation | Less than ± ½% (steady state) Less than ± ½% (no load to full load) | |
| Telephone Influence Factor (TIF) | Less than 50 | |
| Total Harmonic Distortion (THD) | Less than 5 | |
| CBK 3pol manual, fixed mount rear | A | 250.0 |
| Typical Cabeling; TN-C (Prime) | x x mm ² + x x mm ² | |
| Typical Cabeling; TN-C (Standby) | x x mm ² + x x mm ² | |

| Package Dimensions (Dry) | | | |
|---|----|-------|-----------------|
| Engine: Length x Width x Height | mm | 1'161 | x 721 x 885 |
| Weight | kg | 652 | |
| Generator: Length x Width x Height | mm | 767 | x 512 x 566 |
| Weight | kg | 550 | |
| Radiator: Length x Width x Height | mm | 796 | x 518 x 1'083 |
| Dry Weight | kg | 109 | |
| Complete: Length x Width x Height | mm | 2'450 | x 1'010 x 1'554 |
| Complete: Weight | kg | 1'611 | |
| with Enclosure: Length x Width x Height | mm | 3'520 | x 1'130 x 1'969 |
| with Enclosure: Weight | kg | 2'122 | |

| Technical Data | Prime | Standby |
|--------------------------|-------|---------|
| Fuel Consumption | | |
| 100% load | L/hr | 36.9 |
| 75% load | L/hr | 29.2 |
| 50% load | L/hr | 20.7 |
| 100% load | g/kWh | 209.0 |
| 75% load | g/kWh | 220.6 |
| 50% load | g/kWh | 234.5 |
| Oil consumption 75% load | L/hr | 0.015 |
| Oil consumption 75% load | g/kWh | 0.097 |

| | | |
|--|---------------------|-------|
| Cooling System | | |
| Engine coolant Capacity with Radiator / expansion Tank | L | 21.0 |
| Engine coolant Capacity | L | |
| Inlet Air | | |
| Combustion Air inlet flow rate | m ³ /min | 11.9 |
| Exhaust System | | |
| Exhaust stack gas Temperature 100% | °C | 491.0 |
| Exhaust gas flow rate 100% | m ³ /min | 26.4 |
| Exhaust System backpressure max. | kPa | 15.0 |
| Heat Rejection | | |
| Heat Rejection to coolant (total) | kW | 64.0 |
| Heat Rejection to exhaust (total) | kW | |
| Heat Rejection to after cooler | kW | |
| Heat Rejection to Atmosphere from Engine | kW | 27.0 |
| Heat Rejection to Atmosphere from Generator | kW | 9.7 |
| Lube System | | |
| Sump refill with Filter | L | 17.5 |

| Exhaust Emission (Nominal Data) @ 75% and 55°C ATAAC | | |
|--|--------------------|---|
| CO | mg/nm ³ | - |
| HC | mg/nm ³ | - |
| NOx | mg/nm ³ | - |
| HC + Nox | mg/nm ³ | - |
| Part Matter | mg/nm ³ | - |

| Generator | | |
|--|------|----------|
| Motor starting capability @30% Voltage Dip | skVA | 313.0 |
| Rated Current | A | 230.9 |
| Short-Circuit Current | | 3 x INOM |

| Radiator | |
|---------------------------|---------------------|
| Radiator Type | |
| Design Temperature | °C |
| Radiator coolant Capacity | L |
| Air Flow @ 120 Pa | m ³ /min |
| Air Flow @ 180 Pa | m ³ /min |

| Sound pressure Level LPA @ 75% Last @ 7m | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|-------------|
| dB | Hz | | | | | | | | Overall dBA |
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | |
| Mechanical [Stby] | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Exhaust [Stby] | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Mechanical [Prim] | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Exhaust [Prim] | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |