

Technical specification

Basic data

| | |
|--------------------------------------|--|
| Type | 4 stroke, direct injection diesel engine |
| Configuration | 6 cyl inline |
| Cooling | liquid |
| Aspiration | turbocharged |
| Speed control | mechanical governor |
| Bore / stroke | 108mm / 134mm |
| Displacement | 7,4 litres |
| Compression ratio | 16,5 : 1 |
| Mean piston speed | 6,7 m/s @ 1500 rpm |
| Rotation seen from flywheel end | counterclockwise |
| Number of teeth in starter ring gear | 141 |
| Dry weight | 600 kg |

Standard equipment

| | |
|----------------------------------|---------------------------|
| Flywheel housing | SAE 3 |
| Flywheel | SAE 11,5" |
| Fuel injection | mechanical, Stanadyne DB4 |
| Fuel filter, pre and fine filter | |
| Starter | |
| Alternator | |
| Engine mounting brackets, front | |

Technical data

Injection system

| | |
|--------------------------------|--|
| Injection pump | Stanadyne DB4, mechanical rotary type pump |
| Speed control | mechanical governor |
| Fuel quality standard | EN 590 |
| Biodiesel upto 100% | EN 14214 |
| Max suction head of feed pump | 1 m |
| Max fuel level above feed pump | 7 m |
| Min fuel line inside dia | 8 mm |

Lubrication system

| | |
|------------------------------|--|
| Oil capacity | 22 litres |
| Oil consumption | < 0,3 g/ kWh |
| Oil change interval | 500 h |
| Oil grade requirement | Acea E2-96 / E3-96 / E4 - 98 / E5 - 99 API CF - 4 / CG - 4 / CH - 4 |
| Oil viscosity recommendation | 15 W 40 |

74 DTG for genset application



Cooling system

| | |
|--|-------------------------------|
| Coolant volume | 15 litres |
| Thermostat range, opening / fully open | 79 / 85 °C |
| Max coolant temperature | 110 °C |
| Min volume of expansion tank | 10% of total system volume |
| Max height of expansion tank | 10 m |
| Max pressure in cooling circuit | 100 kPa |
| Antifreeze type, min standard | BS 6580-1992, ASTM D 3306-86a |

Air intake and ventilation

| | |
|-----------------------------------|--|
| Permissible vacuum in engine room | 0,2 kPa |
| Max engine room temperature | 45 °C when air intake from engine room 60 °C when air intake via duct |
| Max air intake restriction | 3,4 kPa |

Exhaust system

| | |
|------------------|---------------------------------------|
| Max backpressure | 10 kPa (below 8 kPa is recommended) |
|------------------|---------------------------------------|

Electric system

| | |
|--------------------------|------------------------|
| Starter | 12 V / 4 kW |
| Alternator | 14 V / 95 A |
| Starter battery capacity | recommended min 200 Ah |
| Battery cable | min 90 mm ² |

Performance data

Nominal rating: 136 kW @ 1500 rpm

Fuel consumption:

| load | 110% | 100% | 75% | 50% | 25% |
|------|------|------|------|------|------|
| l/h | 37,8 | 33,8 | 26,3 | 17,8 | 10,3 |

Heat rejection at 110% load to:

| | |
|--------------------------|---------|
| Cooling water / radiator | 76,0 kW |
| Exhaust gas | 125 kW |

Miscellaneous data:

| | |
|--|---------------------------|
| Charge air pressure at 110% load | 1,70 bar |
| Air consumption at full load | 10,5 m ³ / min |
| Exhaust gas flow at full load | x,x m ³ / min |
| Exhaust gas temperature after turbo, max | 563 °C |