

N67 TE2F

165 kW (1500 rpm)

Engine N67 TE2F

1/ GENERAL

1500 rpm

Engine Model	NEF67 TE2F	
Basic engine type	F4HE0685F*J100 - 504388397	
Number of cylinders	6	
Firing order (N° 1 nearest to fan)	1-5-3-6-2-4	
Cylinder arrangement	in line	
Valves per cylinder	4	
Cycle	diesel 4 stroke	
Injection system	direct common rail	
Electronic engine control unit	BOSCH EDC7 UC31	
Induction System	turbocharged aftercooled air/air	
Bore	mm	104
Stroke	mm	132
Total displacement	lit	6,7
Mean piston speed	m/s	6,6
Compression ratio	17,5 : 1	
Flywheel rotation	anti clockwise viewed on flywheel	
Housing flywheel	SAE 3	
Flywheel	11"1/2	
Moment of inertia		
without flywheel	kgm ²	0,31
flywheel only	kgm ²	0,71
Degree of irregularity at PRP	0,05	
BMEP gross		
Prime Power	bar/kPa	18,5 / 1851
Stand-by Power	bar/kPa	20,3 / 2030
Dry weight (including cooling package)	kg	~ 630
Energy to coolant	kcal/kWh	300
Energy to charge cooler	kcal/kWh	150
Energy to radiation	kcal/kWh	300
Dimensions L x W x H	mm	1713 x 796 x 1230

2/ PERFORMANCES

1500 rpm

Continuous Power	(gross)	kWm	125
Prime Power	(gross)	kWm	155
Stand-By Power	(gross)	kWm	170
Fan consumption		kWm	5
Continuous Power	(net)	kWm	120
Prime Power	(net)	kWm	150
Stand-By Power	(net)	kWm	165
Performance condition			
temperature	°C		≤ 40
altitude a.s.l	m		≤ 1000
Derating			
temperature > T 40°C	%/5°C		2%
altitude >1000 <3000 m	%/500m		3%
altitude >3000 m	%/500m		6%

3/ COOLING SYSTEM

1500 rpm

Type		liquid
Recommended coolant		water + 50 % paraflu 11
Coolant capacity		
engine only	liter	10,5
radiator and hoses	liter	15
Coolant pump flow	l/min	141
Thermostat: start to open	°C	90
Thermostat: fully open	°C	85
Engine coolant outlet max temp.	°C	80
Engine coolant inlet temp.	°C	96
Pressure cap setting	kPa (bar)	100 (1,0)
Shutdown switch setting	°C	103
Maximum additional restriction	Pa	196
Air To Boil	Prime Power	°C
		58
Fan		
diameter	mm	685
number of blades		12
drive ratio		1,41:1
speed	rpm	2115
air flow	m ³ /s	3,8
power consumption	kWm	5

4/ LUBRICATION SYSTEM

1500 rpm

Oil sump capacity		
max	liter	15
min	liter	8
Oil system capacity including filter	liter	17
Oil pressure at rated speed	kPa	300-500
Oil temperature		
normal	°C	---
max	°C	120
Engine angularity		
longitudinal	degrees	35°
transverse	degrees	35°
Servicing interval	hours	600
Oil specification		ACEA E3/E5
Oil consumption	%fuel	< 0,1

5/ INTAKE SYSTEM

1500 rpm

Air consumption at 100 % of load	m ³ /h (Kg/h)	652 (782,5)
Air intake restriction, clean filter	kPa (mbar)	2 (20)
Air intake restriction, dirty filter	kPa (mbar)	5 (50)
Air filter type		dry

6/ EXHAUST SYSTEM

1500 rpm

Gas flow at stand-by Power	kg/h	819,5
Max temperature at PRP (25°C)	°C	610
Max allowable back pressure	kPa (mbar)	6 (60)
Energy to exhaust	kcal/kWh	614

7/ FUEL SYSTEM

1500 rpm

Fuel consumption at		
Stand-By	gr/kWh (l/h) [kg/h]	217 (44) [36,9]
Full load	gr/kWh (l/h) [kg/h]	215 (39,6) [33,3]
80%	gr/kWh (l/h) [kg/h]	220 (32,7) [27,5]
50%	gr/kWh (l/h) [kg/h]	239 (24,2) [20,4]
Fuel specifications		EN 590
Feed pump max suction head	m	---

8/ ELECTRIC SYSTEM

1500 rpm

Voltage (negative to ground)	V	12
Starter motor		
make		Bosch
power	kW	3
pull current	Amp	60
hold current	Amp	12
break away current +20°C	Amp	1900
cranking current +20°C	Amp	0
Number of teeth on starter motor		10
Number of teeth on flywheel		125
Starting batteries		
recommended capacity Ah	1x	180
discharge current	Amp	800
(EN 50342)		
Alternator		
voltage	V	14
charge	Amp	90

9/ COLD STARTING

1500 rpm

Without air preheating	°C	-10
With air preheating	°C	-25

10/ EMISSION GASEOUS AND PARTICLES

1500 rpm

No _x	Oxides of nitrogen	gr/kWh	3,59
HC	Hydrocarbons	gr/kWh	0,15
No _x +HC		gr/kWh	3,74
CO	Carbon monoxide	gr/kWh	0,79
PT	Particles	gr/kWh	0,09