

# N67 TE1F

145 kW (1500 g/1')

## 1/ GENERAL

1500 rpm

Engine model	NEF67 TE1F	
Basic engine type	F4HE0685G*J100 - 5801424211	
Number cylinders	6	
Firing order (cylinder 1 nearest to fan)	1-5-3-6-2-4	
Cylinder arrangement	in line	
Valves per cylinder	2	
Cycle	diesel 4 stroke	
Injection system	direct	
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 <sup>2</sup>	0,31
flywheel only	kgm <sup>2</sup>	0,71
Degree of irregularity at PRP	0,044	
BMEP gross		
Prime Power	bar/kPa	16,29 / 1629
Stand-by Power	bar/kPa	17,9 / 1791
Dry weight (including cooling package)	kg	~ 630
Energy to coolant	kcal/kWh	350
Energy to charge cooler	kcal/kWh	125
Energy to radiation	kcal/kWh	160
Dimensions L x W x H	mm	1713 x 796 x 1230

## 2/ PERFORMANCES

1500 rpm

Continuous Power	(gross)	kWm	110
Prime Power	(gross)	kWm	136,5
Stand-By Power	(gross)	kWm	150
Fan consumption		kWm	5
Continuous Power	(net)	kWm	105
Prime Power	(net)	kWm	131,5
Stand-By Power	(net)	kWm	145
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
Engine cooling outlet (max power)	°C	85
Engine cooling inlet (max power)	°C	80
Thermostat: start to open	°C	80
Thermostat: fully open	°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 <sup>3</sup> /s	3,8
power consumption	kWm	5

### 4/ LUBRICATION SYSTEM

1500 rpm

Oil sump capacity		
max	liter	12
min	liter	8
Oil system capacity including filter	liter	17,2
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 <sup>3</sup> /h (Kg/h)	630 (752,5)
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	782
Max temperature at PRP (25°C)	°C	600
Max allowable back pressure	kPa (mbar)	5 (50)
Energy to exhaust	kcal/kWh	614

### 7/ FUEL SYSTEM

**1500 rpm**

Fuel consumption at		
Stand-By	gr/kWh (l/h) [kg/h]	205 (36,5) [30,7]
Full load	gr/kWh (l/h) [kg/h]	210 (34) [28,6]
80%	gr/kWh (l/h) [kg/h]	216 (28,2) [23,7]
50%	gr/kWh (l/h) [kg/h]	235 (20) [17]
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	1580
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 <sub>x</sub>	Oxides of nitrogen	gr/kWh	3,59
HC	Hydrocarbons	gr/kWh	0,15
No <sub>x</sub> +HC		gr/kWh	3,74
CO	Carbon monoxide	gr/kWh	0,79
PT	Particles	gr/kWh	0,09