

1/ GENERAL			1500 rpm
Engine model			NEF67 TM4
Basic engine			F4GE0685A*B601 - 5801669214
Number cylinders			6
Firing order (N°1 nearest to fan)			1-5-3-6-2-4
Cylinder arrangement			in line
Valves per cylinder			2
Type			diesel 4 stroke
Injection system			direct
Induction System			Turbocharged aftercooled air/air
Bore	mm		104
Stroke	mm		132
Total displacement	liter		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>	0,14
	flywheel only	kgm <sup>2</sup>	0,71
BMEP			
	Prime Power	bar/kPa	18,5 / 1850
	Stand-by Power	bar/kPa	20,3 / 2030
Dry weight (including cooling package)			kg ~ 640
Energy to coolant			kcal/kWh 443
Energy to charge cooler			kcal/kWh 98
Energy to radiation			kcal/kWh 107
Dimensions L x W x H			mm 1697 X 789 X 1318

2/ PERFORMANCES			1500 rpm
Continuous Power	(gross)	kWm	123,7
Prime Power	(gross)	kWm	154,7
Stand-By Power	(gross)	kWm	170
Fan consumption			kWm 5
Continuous Power	(net)	kWm	118,7
Prime Power	(net)	kWm	149,7
Stand-By Power	(net)	kWm	165
Performance conditions			
	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%parafllu 11
Coolant capacity		
motor only	litri	10,5
radiator and hose	litri	15
Coolant pump flow	l/min	141
Pression cap setting	kPa (bar)	70 (0,7)
Shutdown switch setting	°C	103
Maximal additional restriction	Pa	196
Air To Boil	Prime Power	°C
		60
Fan		
diameter	mm	685
number of blades		12
drive ratio		1,41 : 1
speed	giri/1'	2115,0
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 filters	liter	17,2
Oil pressure at PRP	kPa	300-500
Oil temperature		
normal	°C	---
max	°C	120
Engine angularity		
longitudinal	degrees	35°
trasverse	degrees	35°
Servicing intervall	hours	800
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)	586 (706)
Air intake restriction clean filter	kPa (mbar)	2 (20)
Air intake restriction dirty filter	kPa (mbar)	5 (50)
Air filter type		dry

### 6/ EXHAUST SYTEM

1500 rpm

Gas flow at stand by power	kg/h	741,2
Max temperature at PRP (25°C)	°C	497
Max allowable back pressure	kPa (mbar)	5 (50)
Energy to exhaust	kcal/kWh	598

### 7/ FUEL SYSTEM

**1500 rpm**

Fuel consumption at			
Stand-By	gr/kWh (l/h) [kg/h]		207,2 (42,2) [35,2]
full load PRP	gr/kWh (l/h) [kg/h]		197 (36,6) [30,5]
80%	gr/kWh (l/h) [kg/h]		198 (29,4) [24,5]
50%	gr/kWh (l/h) [kg/h]		194 (18) [15]
Fuel specifications			EN 590
Fuel pump max suction head	m		---
Injection pump	type STANADYNE		DB 4629

### 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		
Number of teeth on Starter motor			10
Number of teeth on flywheel			125
Starting batteries			
recommended capacity	Ah		1 x 100
discharge current	Amp		650
	(EN 50342)		
Stop solenoid energized to run			---
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	-
HC	Hydrocarbons	gr/kWh	-
No <sub>x</sub> +HC		gr/kWh	-
CO	Carbon monoxide	gr/kWh	-
PT	Particles	gr/kWh	-