N67 TM7

195 kW (1500 rpm) - 195 kW (1800 rpm)

1/ GENERAL		1500 rpm	1800 rpm
Engine model		NEF67 TM7	
Basic engine		F4GE0685B*B601 - 5801836994	
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 inertie			
without flywheel	kgm^2	0,14	
flywheel only	kgm^2	0,71	
BMEP			
Prime Power	bar/kPa	21,7/2171	18,4/1841
Stand-by Power	bar/kPa	23,9/2388	20,2/2025
Dry weight (including cooling package)	kg	~ 640	
Energy to coolant	kcal/kWh	374	356
Energy to charge cooler	kcal/kWh	116	142
Energy to radiation	kcal/kWh	81	73
Dimensions L x W x H	mm	1697 X 789 X 1318	

2/ PERFORMANCES			1500 rpm	1800 rpm
Continuous Power	(gross)	kWm	145	145*
Prime Power	(gross)	kWm	182	185*
Stand-By Power	(gross)	kWm	200	203,5*
Fan consumption		kWm	5	8,5
Continuous Power	(net)	kWm	140	136,5*
Prime Power	(net)	kWm	177	176,5*
Stand-By Power	(net)	kWm	195	195*
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%	
Load Acceptance (ISO 8528-5)** %(G2)			50%	53%

*maximum allowed power on the switchable version

** impact load test performed with specific alternator according to FPT testing rules

FPT POWERTRAIN TECHNOLOGIES

3/ COOLING SYSTEM		1500 rpm	1800 rpm
Type		liquido	
Recommanded coolant		acqua + 50 % paraflu 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	59	
Fan			
diameter	mm	685	
number of blades		12	
drive ratio		1,41 : 1	
speed	giri/1'	2115,0	2538,0
air flow	m^3/s	3,8	5,6
power consumption	kWm	5	8,5

4/ LUBRICATION SYSTEM		1500 rpm	1800 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		API CJ-4ACEA E6/E9	
Oil consumption	%fuel	< 0,1	

5/ INTAKE SYSTEM		1500 rpm	1800 rpm
Air consumption at 100% of load	m^3/h (Kg/h)	680 (800)	825 (970)
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	1800 rpm
Gas flow at stand by power	kg/h	840	1010
Max temperature at PRP (25°C)	°C	560	495
Max allowable back pressure	kPa (mbar)	5 (50)	5(50)
Energy to exhaust	kcal/kWh	593	612

7/ FUEL SYSTEM		**1500 rpm**	**1800 rpm**
Fuel consumption at			
Stand-By	gr/kWh (l/h) [kg/h]	199 (47,5) [39,7]	200(48,9)[40,8]
full load PRP	gr/kWh (l/h) [kg/h]	193 (42) [35]	205(45,5)[38]
80%	gr/kWh (l/h) [kg/h]	194 (34) [28,3]	209(37,1)[31]
50%	gr/kWh (l/h) [kg/h]	205 (15) [12,5]	205(22,7)[19]
Fuel specifications		EN 590	
Fuel pump max suction head	m	1	
Injection pump	type STANADYNE	DB 4629	

8/ ELECTRIC SYSTEM		**1500 rpm**	**1800 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**	**1800 rpm**
Without air preheating	°C	-10
With air preheating	°C	-25

10/ EMISSION GASEOUS AND PARTICLES		**1500 rpm**	**1800 rpm**
No_x	Oxides of nitrogen	gr/kWh	-
HC	Hydrocarbons	gr/kWh	-
No_x+HC		gr/kWh	-
CO	Carbon monoxide	gr/kWh	-
PT	Particles	gr/kWh	-