

SELF PRIMING, DIESEL MOTOPUMP

PUMP INLET DIA.	MM	250
PUMP OUTLET DIA.	MM	250
FLOW	M3/h	350 — 1020 m3
MANOMETER HEIGHT	mSS	35 — 20 mSS
SUCTION HEIGHT	METRE	8
ENGINE	—	FPT ENGINE (ITALY)
PRIME POWER	—	111 KW
ENGINE SPEED	RPM	1.800 d/d
ENGINE START	—	ELECTRIC
COMMAND PANEL	—	MECHANICAL PANEL
FUEL	—	DIESEL
FUEL CONSUMPTION	GR/KW.HR	205-220
CARRIAGE TYPE	—	MOBILE
	—	ONE AXLE, DRIVE ARROW
WEIGHT	KG	1.950
DIMENSIONS	MM	1800 X 3200 X 1850



N45 TM3

118 kW (1500 rpm) - 122 kW (1800 rpm)

1/ GENERAL

1500 g/1'

1800 g/1'

Engine model	N45 TM3		
Basic engine	F4GE0485A*B - 5801668715		
Number cylinders	4		
Firing order (N°1 nearest to fan)	1-3-4-2		
Cylinder arrangement	in line		
Valves per cylinder	2		
Type	diesel 4 tempi		
Injection system	diretta		
Induction System	Turbo aftercooler aria/aria		
Bore	mm	104	
Stroke	mm	132	
Total displacement	lit	4,5	
Mean piston speed	m/s	6,6	7,9
Compression ratio	17,5 : 1		
Flywheel rotation	antiorario		
Housing flywheel	SAE 3		
Flywheel	11"1/2		
Moment of inertia			
	without flywheel	kgm ²	0,14
	flywheel only	kgm ²	0,71
BMEP			
	Prime Power	bar/kPa	19,3 / 1937
	Stand-by Power	bar/kPa	21,3 / 2130
Dry weight (including cooling package)	kg	~500	
Energy to coolant	kcal/kWh	334	410
Energy to charge cooler	kcal/kWh	118	135
Energy to radiation	kcal/kWh	215	215
Dimensions L x W x H	mm	1367 X 753 X 1086	

2/ PERFORMANCES

1500 g/1'

1800 g/1'

Continuous Power	(gross)	kWm	87,5	91*
Prime Power	(gross)	kWm	109	114*
Stand-By Power	(gross)	kWm	120	125*
Fan consumption		kWm	2	3
Continuous Power	(net)	kWm	85,5	89*
Prime Power	(net)	kWm	107	111*
Stand-By Power	(net)	kWm	118	122*
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%

55%

*maximum allowed power on the switchable version

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

Motore N45 TM3

7/ FUEL SYSTEM

1500 g/1'

1800 g/1'

Fuel consumption at

Stand-By	gr/kWh (l/h) [kg/h]	212(30,4) [25,4]	217 (32,4) [27,1]
full load PRP	gr/kWh (l/h) [kg/h]	211 (27,6) [23]	216 (29,3) [24,5]
80%	gr/kWh (l/h) [kg/h]	206 (21,6) [18]	220 (28,9) [20,0]
50%	gr/kWh (l/h) [kg/h]	220 (14,4) [12]	226 (15,3) [12,8]

Fuel specifications

EN 590

Fuel pump max suction head

m

Injection pump

type STANADYNE

DB4429

Fuel density

kg/l

0,835

8/ ELECTRIC SYSTEM

1500 g/1'

1800 g/1'

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 1x	100
discharge current	Amp	650

(EN 50342)

Stop solenoid energized to run

Alternator

voltage	V	14
charge	Amp	90

9/ COLD STARTING

1500 g/1'

1800 g/1'

Without air preheating

°C

-10

With air preheating

°C

-25

10/ EMISSION GASEOUS AND PARTICLES

1500 g/1'

1800 g/1'

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	-	-