

# N67 MNT F42

FOR FIRE FIGHTING PUMPS  
6 CYLINDERS IN LINE - DIESEL CYCLE  
Max 197 kW (268 HP) @ 2940 rpm



## SPRINKLER APPLICATIONS

## N67 MNT F42 FOR FIRE FIGHTING PUMPS

Thermodynamic cycle		Diesel 4 stroke - D.I.
Air intake		TAA
Arrangement		6L
Bore x Stroke	mm	104 X 132
Total displacement	l	6.7
Valves per cylinder		2
Cooling		liquid
Direction of rotation (viewed facing flywheel)		CCW
Compression ratio		17.5 : 1
Rotation mass moment of inertia (without flywheel)	kgm <sup>2</sup>	0.31
Standard flywheel inertia	kgm <sup>2</sup>	0.70

### Air induction

Max suggested intake restriction with clean air filter	kPa (bar)	3.5 (0.035)
Max allowable restriction with dirty air filter	kPa (bar)	6.5 (0.065)
Air requirement for combustion at 100% load/rated speed	kg/h (m <sup>3</sup> /h)	1330 (1140)
Turbocharging pressure at full load/rated speed	kPa (bar)	140 (1.4)
Turbocharging air max temperature (engine inlet)	°C	55
Heat rejected to intercooler at maximum power	kJ/s (kcal/h)	39 (33,500)
Intercooler system max pressure drop	kPa (bar)	10 (0.10)

### Exhaust system

Max allowable backpressure	kPa (bar)	7 (0.07)
Max exhaust temperature at full load/rated speed (after turbo)	°C	530
Exhaust flow at max output	kg/h	1375

### Lubrication system

Minimum oil pressure at idle	kPa (bar)	70 (0.7)
Max oil temperature at full load/rated speed	°C	120
Engine angularity limits continuous operation: max front up and front down	0/360	25
max left hand and right hand	0/360	25
Total system capacity including pipes, filters etc.	liters	12.8

### Cooling system

Coolant capacity (engine only)	liters	8.5
Water pump flow at rated speed	m <sup>3</sup> /h	9.5
Heat to reject by heat exchanger at max power	kJ/s (kcal/h)	100 (85,800)
Thermostat (modulating range)	°C	83 ÷ 95
Cooling liquid max temperature	°C	103
Min/max inner pressure in the cooling circuit	kPa (bar)	30/100 (0.3/1)
External cooling system max pressure drop	kPa (bar)	35 (0.35)

### Fuel system

Injection system		Rotary pump
Gas oil max intake restriction	kPa (bar)	0 (positive head)
Gas oil intake reference temperature	°C	30

### Electrical system

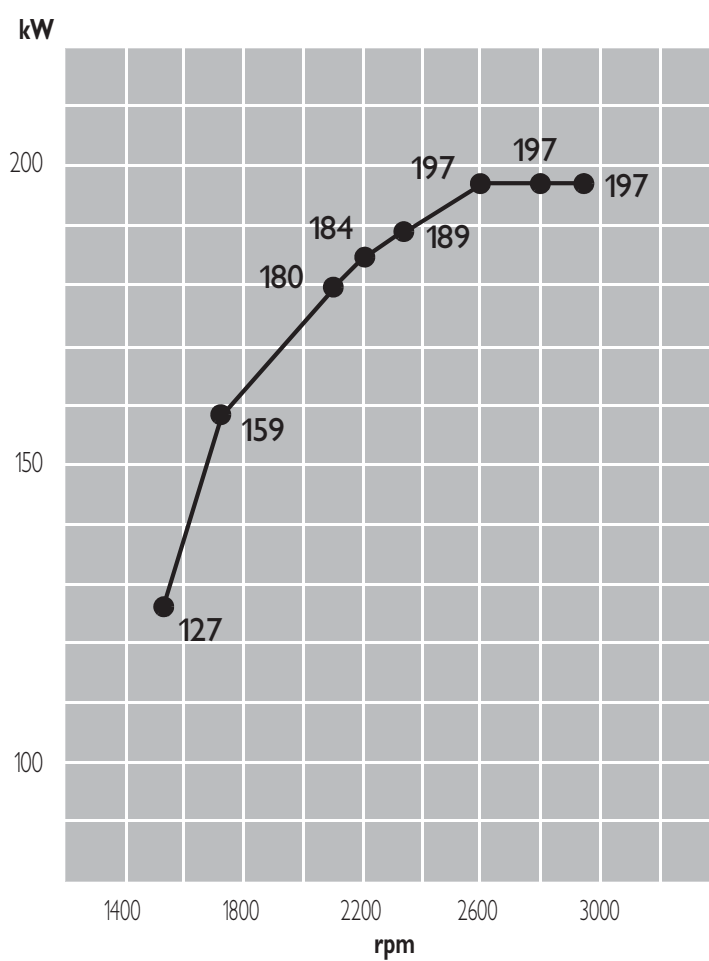
Voltage	V	24
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## N67 MNT F42 FOR FIRE FIGHTING PUMPS

Engine gross power ratings *	rpm	1470	1760	2100	2200	2350	2600	2800	2940
	kW	127	159	180	184	189	197	197	197
	HP	173	216	245	250	257	268	268	268
Specific fuel consumption at maximum rating	g/kWh @ rpm	230 @ 2940							
Oil consumption at max rating	(% of fuel consumption)	0.1							
Minimum starting temperature without auxiliaries	°C	-15							
Dry weight (standard configuration)	kg	530							

\* **Gross Power** at flywheel according to ISO POWER 3046. Applicable also to DIN 6271, B.S. 5514 and SAE J 1349.

**Test conditions:** ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity.



### Dimensions

L = 1046 mm

W = 670 mm (version N67MNT F42.10)

W = 706 mm (version N67MNT F42.01)

H = 1003 mm

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### Engine selection

In order to select an engine determine the maximum power absorbed by the pump at the top of the appropriate impellor curve and add a 10% margin to this power requirement. This now determines the minimum power requirement for fire pump duty. An appropriate selection should then be made using the engine gross power output after deduction of the fan absorption.

### Standard configuration (version N67 MNT F42.10)

Flywheel housing prearranged for pick-up	type	SAE 3
Flywheel size	inch	11" 1/2
Intake manifold location		left side / upward inlet
Exhaust manifold / turbocharger location		right side
Turbocharger		fixed geometry with waste gate
Turbocharger location		high position
Fan transmission ratio		1.12 to 1
Distance between fan - crankshaft centers	mm	296
Fuel filter	n°	1 - left side
Fuel prefilter		-
Fuel pump		included
Oil filter	n°	1 - right side
Oil sump		sheet steel / front sump
Oil vapours blow-by circuit		on timing cover
Oil heat exchanger		included
Oil filler		on timing cover 1 <sup>st</sup> cylinder
Exhaust counter flange		included
Starting motor		24 V - 4 kW
Alternator		24 V - 90 A with W contact
Engine stop device		electrical excitation
Wiring harness		-
Painting	colour	grey
Water engine/air heat exchanger		included
Turbocharging air/air heat exchanger		included

### Not included in the standard configuration

Battery - minimum capacity recommended	180 Ah (24 V)
Battery - minimum cold cranking capacity recommended	800 A (24 V)

### Standard configuration (version N67MNT F42.01)

Differs from the version N67 MNT F42.10 for:

Water engine/air heat exchanger	not included
Turbocharging air/water heat exchanger	included
Fuel pump	not included

**FPT OFFERS THE WIDEST AVAILABILITY OF ENGINE BUILD OPTIONS TO CUSTOMER SPECIFIC REQUIREMENTS WITHIN THE ENGINE SUPPLY. TO FIND OUT MORE ABOUT THE CONFIGURATIONS AND ACCESSORIES WHICH ARE AVAILABLE, CONTACT THE FPT SALES NETWORK.**

**FIAT POWERTRAIN TECHNOLOGIES**  
Via Puglia, 15 - 10156 Torino

**FIAT POWERTRAIN TECHNOLOGIES**  
Viale dell'Industria, 15/17 - 20010 Pregnana Milanese (MI)

[www.fptpowertrain.com](http://www.fptpowertrain.com)

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