

# NOT LISTED SPRINKLER SOLUTIONS

## N67MNTF41 HE OPERATION DATASHEET

### ENGINE GENERAL DATA

THERMODYNAMIC CYCLE	DIESEL - 4 STROKE
ENGINE ARCHITECTURE	6 CYLINDERS, IN LINE
FIRING ORDER	1 - 5 - 3 - 6 - 2 - 4
AIR INTAKE	TCA
COOLING	WATER
CHARGE AIR COOLING SYSTEM	CHARGE AIR/RAW WATER HEAT EXCHANGER
COMPRESSION RATIO	17,5:1
INJECTION SYSTEM	MECHANICAL ROTARY PUMP
COMBUSTION	DIRECT INJECTION
ENGINE DISPLACEMENT	6.7 l
VALVES PER CYLINDER	2
INTAKE	1
EXHAUST	1
ROTATION (VIEWED FROM ENGINE FLYWHEEL)	CCW
ENGINE CRANKCASE VENTILATION SYSTEM	OPEN
ENGINE WEIGHT	650 kg

### ENGINE PERFORMANCE

ENGINE SPEED [rpm]	NET POWER RATING [kW (cv) (1) (2) (3)]	FUEL CONSUMPTION RATE [l/h]
1760 rpm	182 (247)	47
2100 rpm	206 (280)	54
2200 rpm	210 (285)	55
2350 rpm	215 (292)	57
2600 rpm	218 (296)	60
2800 rpm	220 (299)	64
2940 rpm	222 (302)	68

- (1) Power at flywheel according to 97/68 EC (without fan), after 50 hours running, 3% tolerance, fuel Diesel EN 590
- (2) Power derating conditions: a deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1000 ft. (305 m) altitude above 300 ft. (91.4 m), a deduction of 1 percent from engine horsepower rating as corrected to standard SAE conditions shall be made for diesel engines for every 10°F (5.6°C) above 77°F (25°C) ambient temperature.
- (3) Performance evaluated with intake restrictions and exhaust backpressures values as shown.

### EXHAUST SYSTEM

ENGINE SPEED [rpm]	EXHAUST MAX TEMPERATURE [°C]	MAX ALLOWABLE BACK PRESSURE [kPa]	EXHAUST GASES FLOW [kg/h]
1760 rpm	610	5	880
2100 rpm	570	5	950
2200 rpm	560	5	1120
2350 rpm	570	5	1190
2600 rpm	570	5	1300
2800 rpm	580	5	1370
2940 rpm	580	5	1470

**LUBRICATION SYSTEM**

LUBRICATION OIL MINIMUM PRESSURE @ IDLE SPEED	0,7 bar
LUBRICATION OIL MAXIMUM PRESSURE @ RATED SPEED	3,5 bar
LUBRICATION OIL MAXIMUM TEMPERATURE	120°C
LUBRICATION CIRCUIT FULL CAPACITY	17,2 l

**ELECTRIC SYSTEM**

VOLTAGE	12V	24V	(Optional config)
ALTERNATOR	90A	90A	(Optional config)
STARTER MOTOR	3 kW	3 kW	(Optional config)
BATTERIES PER BANK	1	2	(Optional config)
BATTERY CABLES MAX RESISTANCE	0,0013 ohm		
BATTERY CABLES MIN ALLOWED SIZE (4)			
1 M TO 3 M	AWG 0		
3 M TO 4 M	AWG 00		
4 M TO 5 M	AWG 000		
BATTERY CCA @ -18° C (5)	1000 A		
RESERVE CAPACITY (5)	430 min - 180 Ah		

(4) Length combination of positive and negative cables.

(5) Parameters evaluated according to SAE Standard J537.

**AIR INDUCTION SYSTEM**

ENGINE SPEED [rpm]	COMBUSTION AIR FLOW [kg/h]	MAX INLET TEMPERATURE [°C]	MAX ALLOWED RESTRICTION (CLEAN FILTER) [kPa]	MAX ALLOWED RESTRICTION (DIRTY FILTER) [kPa]
1760 rpm	840	55	3,5	6,5
2100 rpm	904	55	3,5	6,5
2200 rpm	1073	55	3,5	6,5
2350 rpm	1142	55	3,5	6,5
2600 rpm	1249	55	3,5	6,5
2800 rpm	1316	55	3,5	6,5
2940 rpm	1410	55	3,5	6,5

## COOLING SYSTEM

ENGINE SPEED [rpm]	REJECTED HEAT [kW]	REQUIRED RAW WATER FLOW @ 15°C [l/min]	REQUIRED RAW WATER FLOW @ 38°C [l/min]	ENGINE RADIATED HEAT [kW]
1760 rpm	105	160	175	28
2100 rpm	110	160	175	29
2200 rpm	120	160	175	29
2350 rpm	128	160	175	31
2600 rpm	135	160	175	33
2800 rpm	137	160	175	35
2940 rpm	137	160	175	36

THERMOSTAT	START OPENING	83°C
	FULL OPENING	95°C
PRIMARY COOLANT TEMPERATURE RANGE		83-95°C
PRIMARY COOLANT MAXIMUM TEMPERATURE		99°C
PRIMARY COOLANT LOW TEMPERATURE ALARM		35°C
PRIMARY COOLANT CAPACITY		17 l
PRIMARY COOLANT PRESSURE (CAP)		0,7 bar
SECONDARY CIRCUIT MAXIMUM PRESSURE		3,8 bar
RAW WATER TEMPERATURE ALARM		40°C

**LIQUID HEATERS (OPTIONAL)**

COOLANT EXTERNAL HEATER (39-49°C HYSTERESIS CYCLE)	1000W – 230V	1000W – 120V
COOLANT EXTERNAL HEATER (49-59°C HYSTERESIS CYCLE)	1500W – 230V	1500W – 120V
COOLANT INTERNAL HEATER (39-49°C HYSTERESIS CYCLE)	1500W – 230V	1500W – 120V
LUBRICATION OIL HEATER	350W – 230V	

**FUEL SYSTEM**

FUEL PUMP MAX INTAKE RESTRICTION	0 bar
MAX ALLOWABLE FUEL HEAD ABOVE FUEL PUMP	1 m
MINIMUM FUEL LINE INTERNAL DIAMETER	10 mm

**ENGINE SELECTION CRITERIA**

THIS ENGINE MUST BE SELECTED BY DETERMINING THE MAXIMUM POWER ABSORBED BY THE FIRE PUMP AT THE TOP OF THE APPROPRIATE IMPELLER CURVE AND ADD A 10% MARGIN TO THIS POWER REQUIREMENT. THIS VALUE NOW DETERMINES THE MINIMUM POWER REQUIREMENT FOR A FIRE PUMP DUTY.

**STANDARD CONFIGURATION**

SAE#3 FLYWHEEL HOUSING  
 11.5" FLYWHEEL  
 DRY AIR FILTER  
 FUEL FILTER  
 LUBE OIL FILTER  
 ENGINE RIGID SUPPORTS  
 FUEL METAL CONNECTIONS  
 HIGH WATER TEMPERATURE SWITCH  
 LOW OIL PRESSURE SWITCH  
 12V STARTER  
 12V ALTERNATOR  
 12V ENERGIZE TO STOP FUEL SOLENOID

**OPTIONS**

SECONDARY COOLANT COOLING LOOP	EXHAUST COMPENSATOR
ENGINE CONTROL PANEL	COOLANT INTERNAL HEATER
LUBE OIL 220V HEATER	COOLANT EXTERNAL HEATER
EXHAUST MUFFLER	LUBE OIL HEATER
24V ELECTRIC SYSTEM	ENGINE BASEFRAME
ETR STOP SOLENOID	ENGINE WIRING
WATER TEMPERATURE SENSOR	CRANK MANUAL CONTACTORS
OIL PRESSURE SENSOR	EXHAUST MUFFLERS
OIL DRAIN PUMP	COOLANT RECOVERY BOTTLE

*Informations, modifications and details contained in this page may be updated without any notice*

