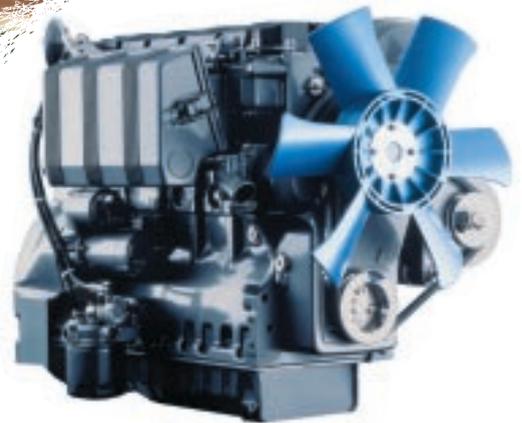




1008/F. The engine for construction equipment.



4 - 31 kW at 1200 - 3600 min⁻¹



These are the characteristics of the 1008/F:

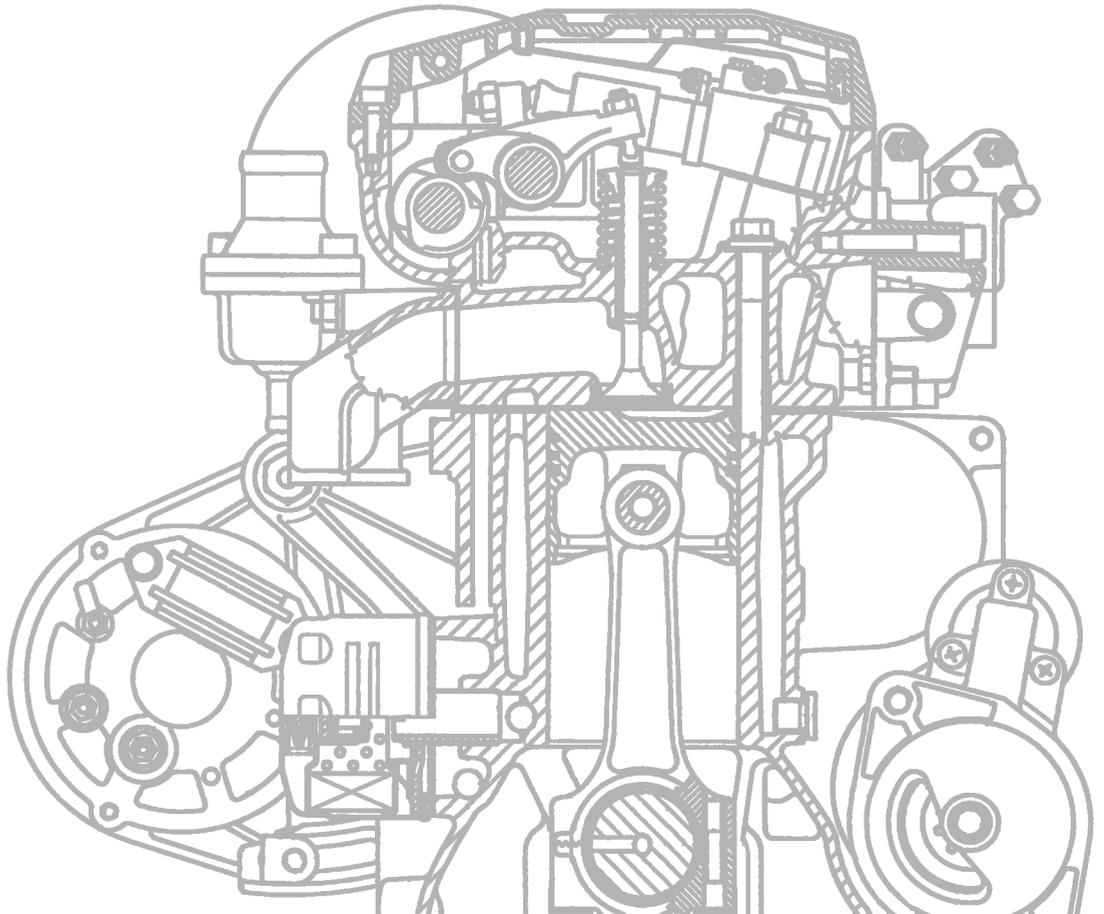
- Watercooled 2-, 3- and 4-cylinder in-line engines.
- 4-cylinder 1008 engine turbocharged.
- 14 % more power than former 1008.
- Innovative and efficient injection- and combustion system with unit injector for each cylinder.
- Customized component system with many different peripheral parts.
- Cold-starting ability even under extreme climatic conditions.
- Two mounting options for hydraulic pumps.
- Extremely compact design and high power-to-volume ratio.

These are the benefits for you:

- ▶ Flexible and powerful response to changing operating duties.
- ▶ Low noise emissions, less noise insulation measures required.
- ▶ Low operating costs thanks to longer maintenance intervals.
- ▶ Excellent smooth-running characteristics thanks to low engine vibrations.
- ▶ Minimal environmental impact. Meets exhaust regulation EU-RL 97/68, Step 2.
- ▶ Improved reliability and durability due to modern technology.

Engine description

Type of cooling:	External liquid cooling
Water pump:	Toothed belt-driven
Crankcase:	Engine block of perlitic grey cast iron
Crankcase breather:	Closed-circuit breather
Cylinder head:	Block-type aluminium cylinder head with exchangeable valve guides and seat inserts
Valve arrangement/ Timing:	Overhead valves in cylinder head, one inlet and one exhaust valve per cylinder, actuated from low-noise belt-driven camshaft via rocker arms
Injection system:	Patented unit injector for each cylinder, mounted in the cylinder head and directly driven by the camshaft
Injection nozzles:	Pintle nozzle
Combustion system:	Two-stage combustion
Fuel lift pump:	Diaphragm pump, camshaft driven via pushrod
Piston:	Hypereutectic alloy with two compression rings and one oil scraper ring
Crankshaft:	Nodular cast iron
Bearings:	Tri-metal laminated plain bearings
Lubrication system:	Forced-feed circulation lubrication with eccentrically driven rotary pump Full-flow oil filter with replaceable cartridge
Starter motor:	12V; 1,1 kW
Alternator:	14 V; 45A
Pre-heating:	Glow plug in each combustion chamber
Options:	Electric start/stop equipment, exhaust manifolds, silencers and flanges, electric wiring (including sensors) and panels, automatic preheating time control, SAE flywheels and housings, connections for cab heating, belt and fan guards, fuel filters, fuel tanks, air cleaners, hydraulic pump drives, engine mounting feet, radiators and fans

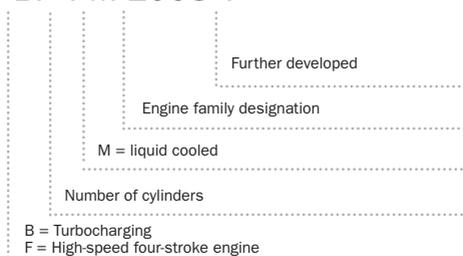


► Technical data

Engine type		F2M1008F	F3M1008F	F4M1008F	BF4M1008
Number of cylinders		2	3	4	4
Bore/stroke	mm	75/77.6	75/77.6	75/77.6	72/75
Displacement	l	0.69	1.03	1.37	1.22
Compression ratio		22.8	22.8	22.8	22.8
Max. rated speed	min ⁻¹	3600	3600	3600	3600
mean piston speed	m/s	9.3	9.3	9.3	9.0
Power ratings for construction equipment engines ¹⁾					
Power ratings for automotive engines ²⁾ kW		13.0	20.0	27.2	31.0
at speed ³⁾	min ⁻¹	3600	3600	3600	3600
Power ratings for industrial engines ⁴⁾ kW		11.6	18.0	25.0	28.5
at speed ³⁾	min ⁻¹	3600	3600	3600	3600
Max. torque	Nm	40.0	59.0	82.5	98.0
at speed	min ⁻¹	2200	2200	2200	2400
Minimum idle speed	min ⁻¹	900	900	900	900
Specific fuel consumption ⁵⁾	g/kWh	254	270	274	264
Weight to DIN 70020 A, ⁶⁾	kg	66	87	98	100

► Model designation

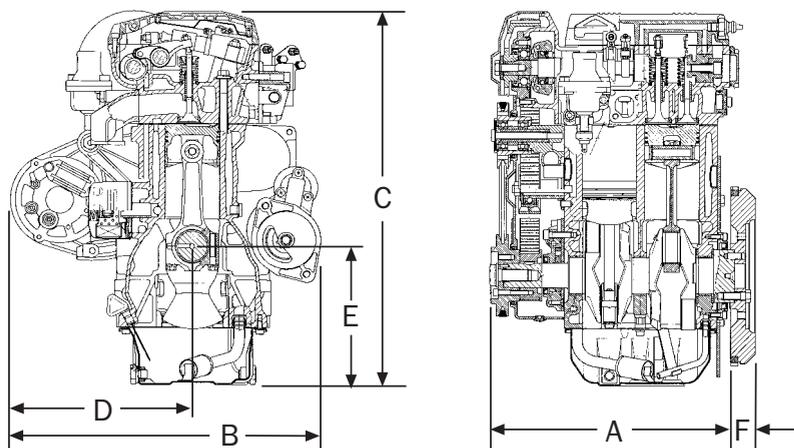
BF 4 M 1008 F



- 1) Power ratings at flywheel, with deduction of fan power requirement.
- 2) Acc. to ISO 1585, EG-RL80/1269/EWG ECE-R 24
- 3) Power ratings for non-mentioned speed ranges upon request.
- 4) Acc. to ISO 3046/1(IFN), intermittent operation. The fuel stop IFN power is an ISO net power at flywheel under reference conditions with all essential auxiliaries driven by the engine.
- 5) At optimal operating point. Specific fuel consumption based on diesel fuel with a specific gravity of 0.835 kg/dm³ at 15°C.
- 6) Without fan.

The values given in this data sheet are for information purposes only and not binding. The information given in the offer is decisive.

► Dimensions



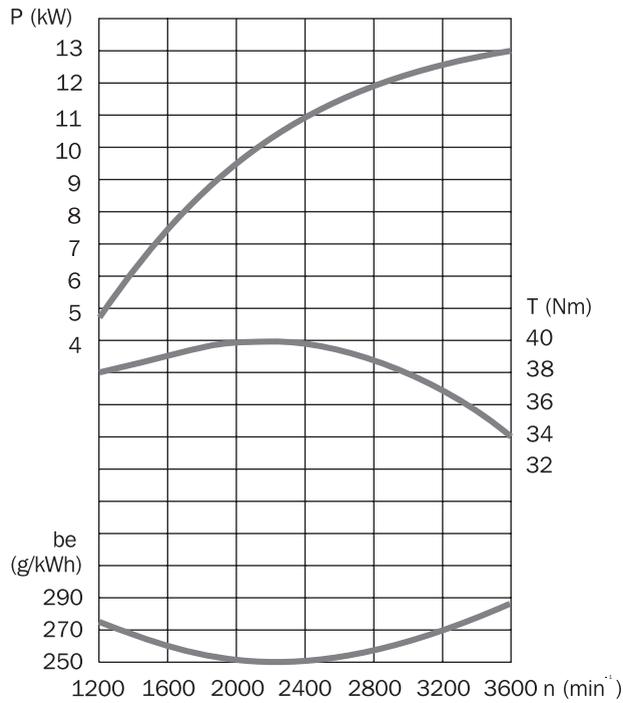
Engine w/o radiator

		A	B	C	D	E	F
F2M1008F	mm	297.6	440	515	260	178	130.4
F3M1008F	mm	376.6	440	515	260	178	130.4
F4M1008F	mm	459.6	440	515	260	178	130.4
BF4M1008	mm	459.6	480	555	270	178	130.4

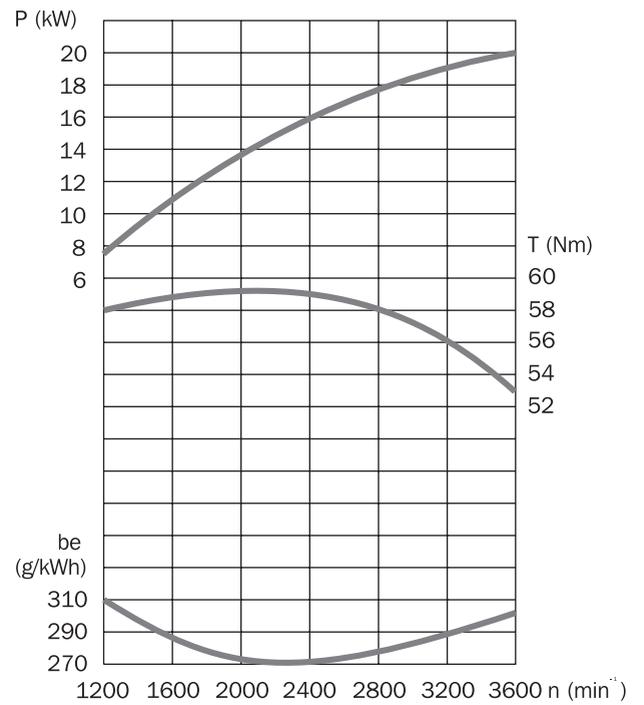
Engine with radiator

		A	B	C	D	E	F
F2M1008F	mm	430.6	450	591	270	178	130.4
F3M1008F	mm	549.6	491	637	270	178	130.4
F4M1008F	mm	632.6	491	637	270	178	130.4
BF4M1008	mm	632.6	531	637	270	178	130.4

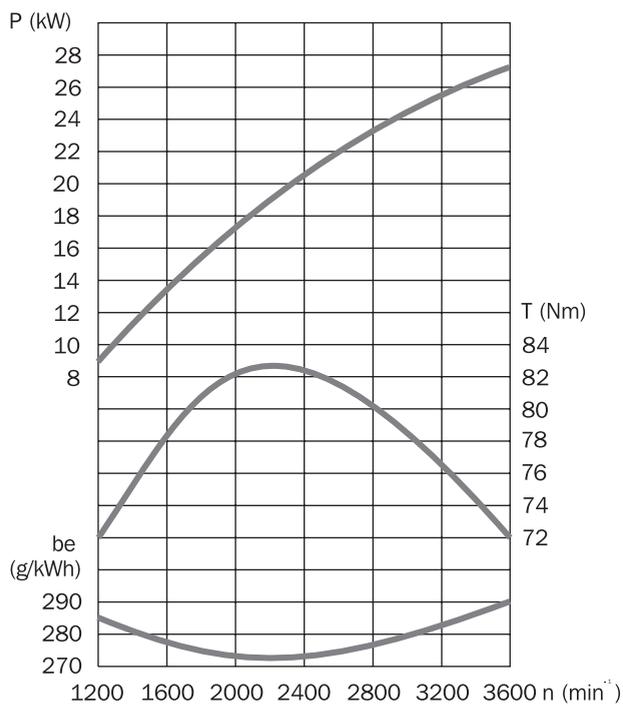
► Standard engines



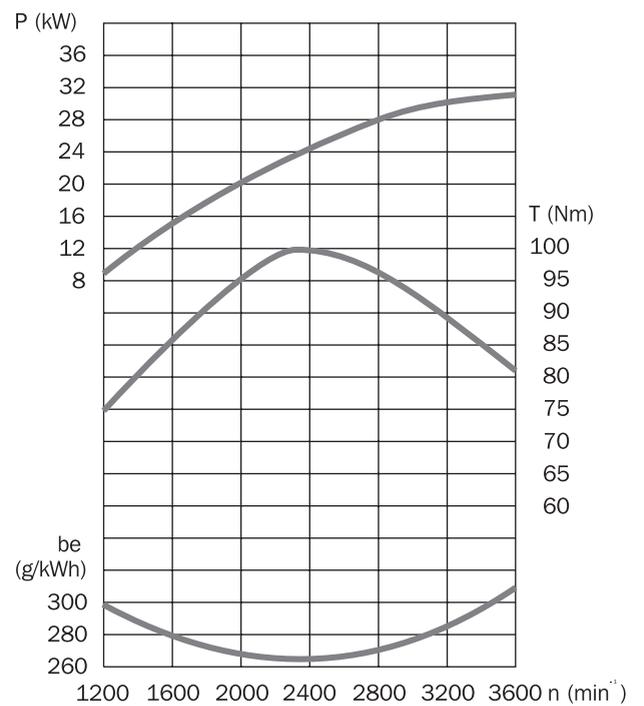
► F2M1008F



► F3M1008F



► F4M1008F



► BF4M1008



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