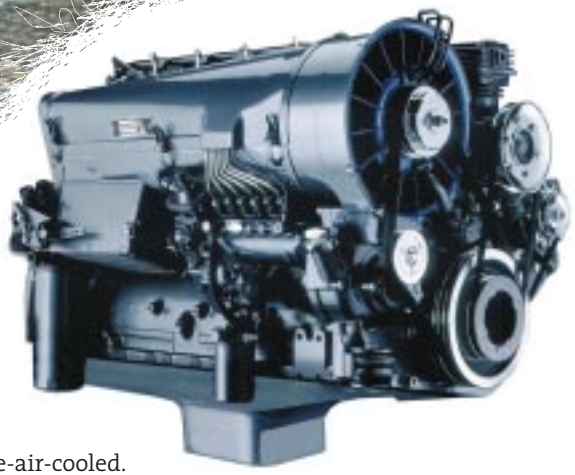
913. The engine for construction equipment.

25 - 141 kW at 1500 - 2500 min^{-1}



These are the characteristics of the 913:

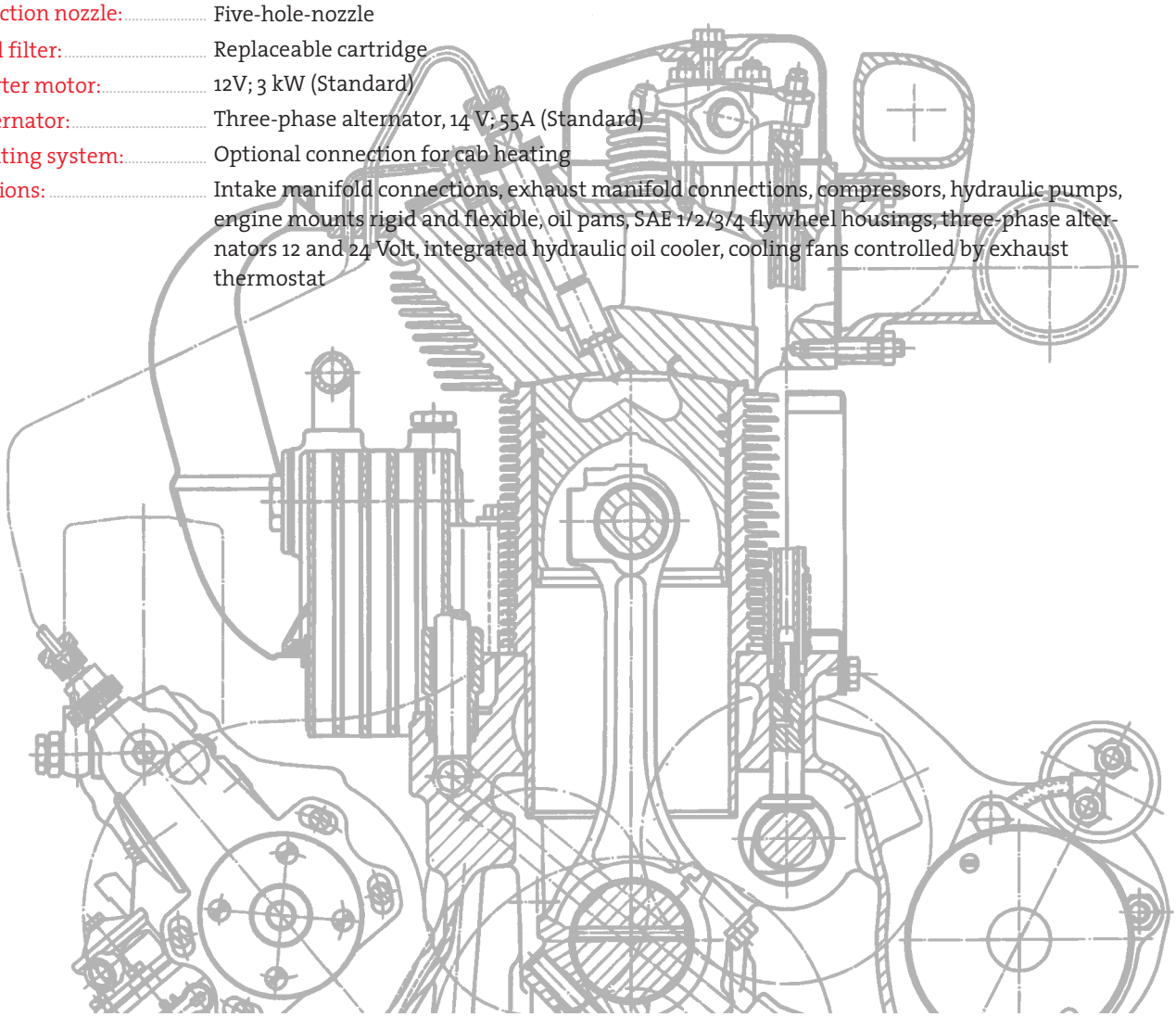
Air-cooled 3-, 4-, 6-cylinder naturally aspirated in-line-engines.
Direct injection.
Advanced injection and combustion system.
4- and 6-cylinder engines turbocharged. 6-cylinder engine also charge-air-cooled.
PTOs via gear, V-belt and crankshaft.
Extremely compact design.
High torque at low speeds.
Modular system with single cylinder arrangement and high degree of parts commonality.
Customized component system with many different peripheral parts.
Cold-starting ability even under extreme climatic conditions.

These are the benefits for you:

- Fast response to load changes.
- Low noise emission, high cost savings thanks to less noise insulation requirement.
- Low operating costs thanks to lower fuel consumption and long maintenance intervals with reduced maintenance requirement.
- Excellent smooth-running characteristics thanks to low engine vibrations.
- Minimal environmental impact. Meets exhaust regulation EU-RL 97/68.
- Extremely reliable and durable.

Engine description

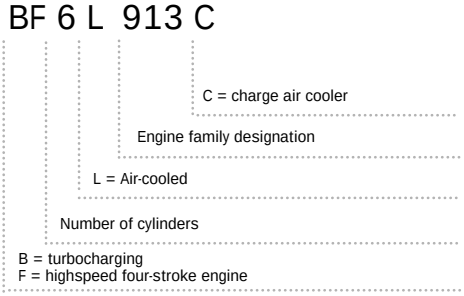
Cooling system:	Air-cooled with integrated axial-flow blower
Crankcase:	Grey cast iron
Cylinder head:	Aluminium single cylinder heads
Valve arrangement/ timing:	Overhead valves in the cylinder head, one inlet and one exhaust valve per cylinder, actuated from gear-driven camshaft via tappets, push-rods and rocker arms
Piston:	Three-ring piston: two compression rings and one oil scraper ring
Piston cooling:	Oil spray via nozzle
Crankshaft:	Nodular cast iron- crankshaft with integrated counterweights
Connecting rod:	Drop-forged steel rod, diagonally split
Main and big end bearings:	Ready-to-install bi-metal plain bearings
Camshaft:	Steel, seated in bi-metal bearing on the blower side
Lubrication system:	Forced-feed circulation lubrication with rotary pump which feeds both lubricating and heating systems (if heating is fitted)
Engine oil cooler:	Integrated aluminium cooler
Oil cooler thermostat:	Oil cooler flow thermostatically controlled on engines with heating system
Lube oil filter:	Paper-type micro-filter as replaceable-cartridge full flow filter
Injection pump/ governor:	In-line injection pump with mechanical centrifugal governor
Injection nozzle:	Five-hole-nozzle
Fuel filter:	Replaceable cartridge
Starter motor:	12V; 3 kW (Standard)
Alternator:	Three-phase alternator, 14 V; 55A (Standard)
Heating system:	Optional connection for cab heating
Options:	Intake manifold connections, exhaust manifold connections, compressors, hydraulic pumps, engine mounts rigid and flexible, oil pans, SAE 1/2/3/4 flywheel housings, three-phase alternators 12 and 24 Volt, integrated hydraulic oil cooler, cooling fans controlled by exhaust thermostat



Technical data

Engine type		F3L913	F4L913	BF4L913	F6L913	BF6L913	BF6L913C
Number of cylinders		3	4	4	6	6	6
Bore/stroke	mm	102/125	102/125	102/125	102/125	102/125	102/125
Displacement	l	3.10	4.10	4.10	6.12	6.12	6.12
Compression ratio		19	19	18	19	18	17
Max. rated speed	min^{-1}	2500	2500	2500	2500	2500	2500
Mean piston speed	m/s	10.4	10.4	10.4	10.4	10.4	10.4
Power ratings for construction equipment engines[1)]							
Power ratings for automotive engines[2)]	kW	44	59	78	89	118	141
at speed[3)]	min^{-1}	2500	2500	2500	2500	2500	2500
Mean effective pressure	bar	6.89	6.93	9.16	6.97	9.24	11.04
Power ratings for industrial engines[4)]							
highly intermittent operation	kW	44	59	78	89	118	136
at speed	min^{-1}	2500	2500	2500	2500	2500	2500
Mean effective pressure	bar	6.89	6.93	9.16	6.97	9.24	10.65
iintermittent operation[4)]	kW	42	56	72	85	109	131
at speed	min^{-1}	2500	2500	2500	2500	2500	2500
Mean effective pressure	bar	6.58	6.58	8.46	6.66	8.54	10.26
Max. torque	Nm	202	270	355	395	550	690
at speed	min^{-1}	1450	1450	1600	1450	1600	1600
Minimum idle speed	min^{-1}	650	650	650	650	650	650
Specific fuel consumption[5)]	g/kWh	225	225	223	225	223	205
Weight to DIN 70020, Part 7A[6)]	kg	277	307	350	430	485	510

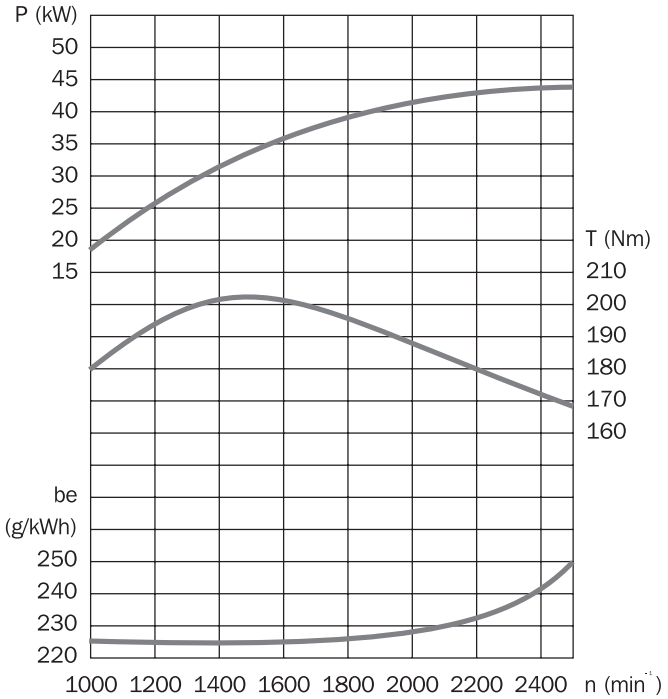
Model designation



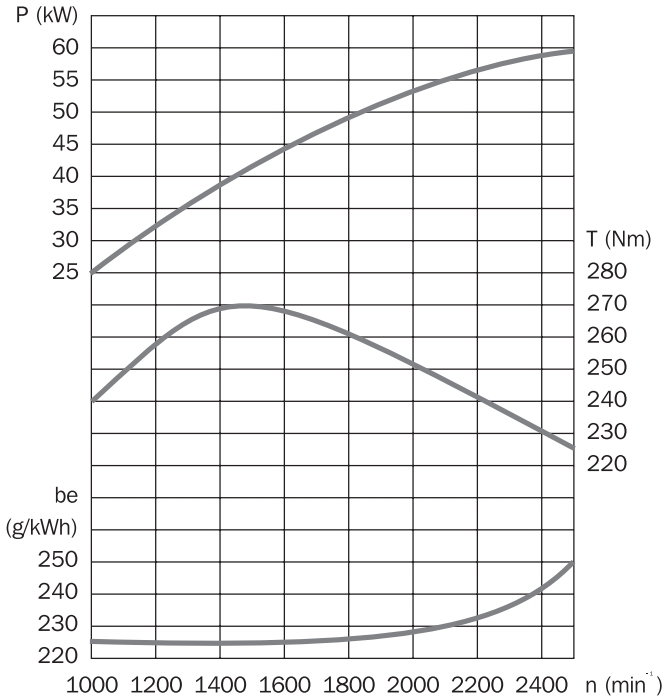
1) Power ratings without deduction fan power requirement, incl. cooling system, meeting exhaust emission limits of EU-RL 97/98.
2) Power ratings to DIN ISO 1585, EG-RL80/1269/EWG ECE-R 24
3) Power ratings for non-mentioned speeds upon request.
4) Power to DIN ISO 3046/1 (IFN). The fuel stop IFN power 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/dm^3 at 15°C.
6) Without starter motor/alternator, radiator and liquids, however with flywheel and flywheel housing and complete integrated cooling system.

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

Standard engines

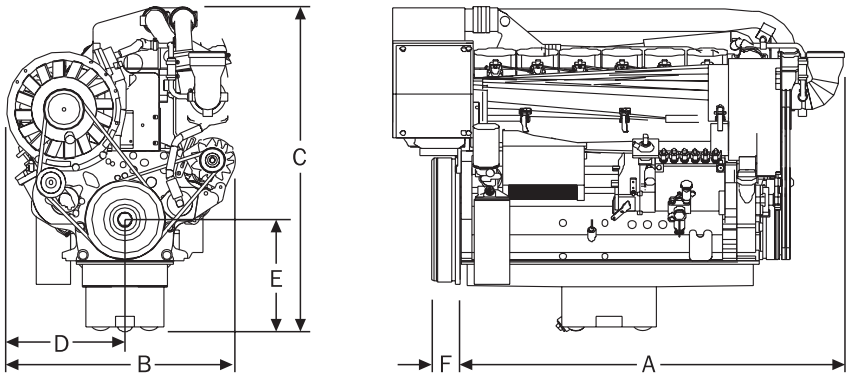


F3L913



F4L913

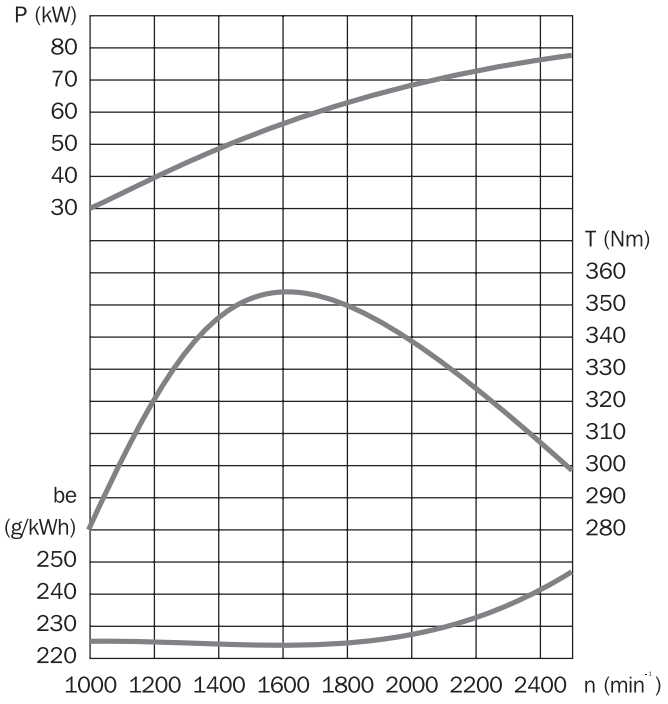
Dimensions



Engine		A	B	C	D	E	F
F3L913	mm	697	679	796	329	268	108
F4L913	mm	807	679	796	629	268	88
BF4L913	mm	814	692	853	341	268	88
F6L913	mm	1084	679	806	329	278	88
BF6L913	mm	1108	714	876	363	341	88
BF6L913C	mm	1137	714	876	363	341	88

*) with standard flywheel, incl. cooling system
**) with standard oil pan, oil sump central

Standard engines



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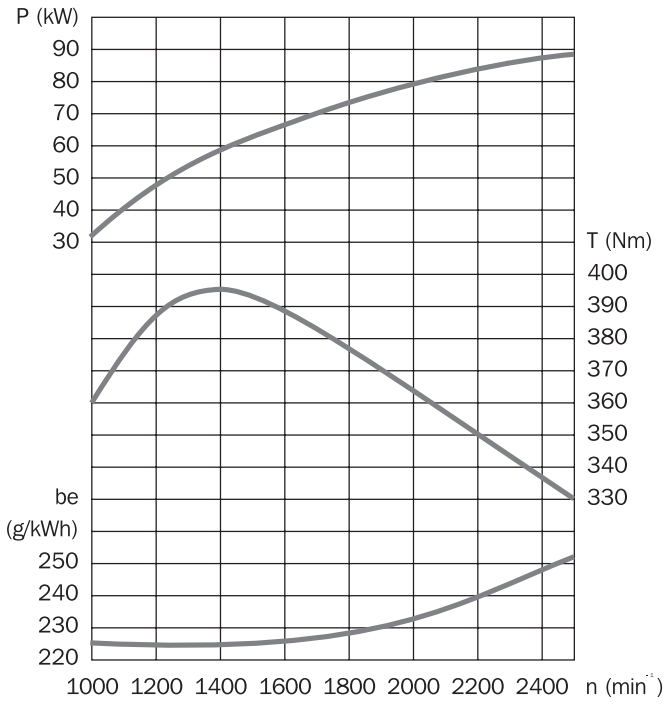
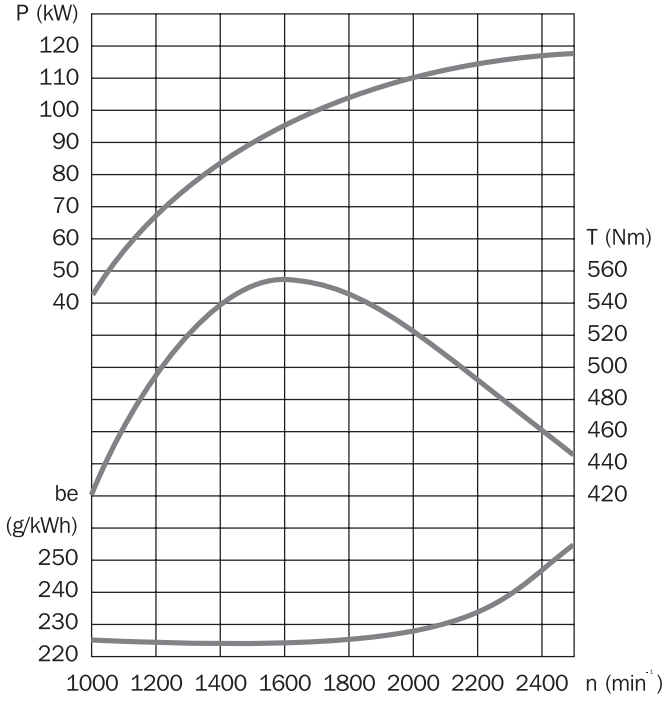


F6L913



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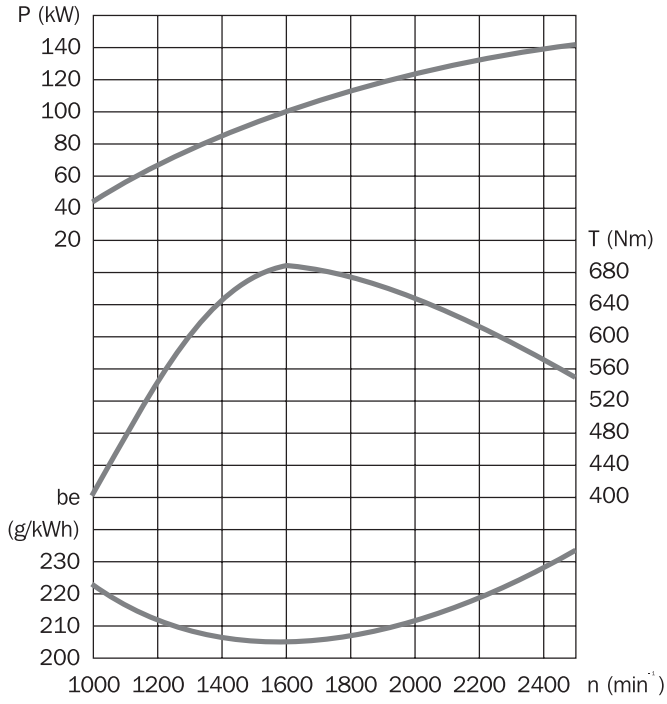

BF6L913C

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Knowing it's DEUTZ.

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