

# 1013. The Genset Engine.

83-204 kVA at 1500/1800 min<sup>-1</sup> | rpm



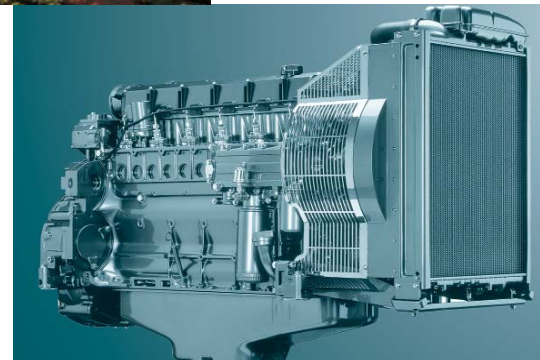
## The engine with external cooling system.

### These are the characteristics of the 1013 Gen:

- Watercooled 4 and 6 cylinder in-line engine.
- Turbocharging and turbocharging with charge air cooling.
- Displacement: 1.2 l /cylinder.
- Modern high-pressure fuel injection system with single injection pumps.
- Electronic governor (option).
- All servicing points on one side.
- Compact design and low weight.

### Your benefits:

- ▶ Low noise radiation. This eliminates the need for costly noise attenuation measures.
- ▶ Exemplarily low fuel and oil consumption, long service intervals save operating costs.
- ▶ Easy and cost-effective installation with minimum weight and small space requirement.
- ▶ Outstanding load acceptance ensures immediate power supply.
- ▶ Incomparably low exhaust emission, meets all industrial exhaust regulations.
- ▶ Global service network with over 1,000 locations.



#### Dimensions and weights

<b>BF4M 1013 E*)</b>		<b>BF6M 1013 E*)</b>	
Length:	mm   inch 1425   56.10	Length:	mm   inch 1702   67.00
Width:	mm   inch 663   26.10	Width:	mm   inch 741   29.17
Height:	mm   inch 1151   45.31	Height:	mm   inch 1239   48.78
Weight:	kg   lb 520   1146	Weight:	kg   lb 740   1631
<b>BF4M 1013 EC</b>		<b>BF6M 1013 EC</b>	
Length:	mm   inch 1479   58.23	Length:	mm   inch 1870   73.62
Width:	mm   inch 728   28.66	Width:	mm   inch 866   34.09
Height:	mm   inch 1151   45.31	Height:	mm   inch 1239   48.78
Weight:	kg   lb 560   1235	Weight:	kg   lb 770   1697
<b>BF4M 1013 FC</b>		<b>BF6M 1013 FC</b>	
Length:	mm   inch 1479   58.23	Length:	mm   inch 1923   75.71
Width:	mm   inch 728   28.66	Width:	mm   inch 1003   39.49
Height:	mm   inch 1151   45.31	Height:	mm   inch 1586   62.44
Weight:	kg   lb 560   1235	Weight:	kg   lb 770   1697

\*) Without charge air cooling

## ▶ Rating table: 1013. The Genset Engine. 50 Hz

Engine type		BF4M 1013E*)	BF4M 1013EC	BF4M 1013FC	BF6M 1013E*)	BF6M 1013EC	BF6M 1013FC			
Rating category								G1	G2	G3
Speed	min <sup>-1</sup>   rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500
Frequency	Hz	50	50	50	50	50	50	50	50	50
<b>Engine/genset ratings<sup>1)</sup></b>										
Continuous power, ICN (COP) <sup>2)</sup>	kW   hp	77   103	92   123	96   129	116   155	139   186	154   206			166   222
Prime power, ICN (PRP) <sup>3)</sup>	kW   hp	81   109	97   130	101   135	122   163	146   196	162   217	166   222	166   222	183   245
Limited-time running power, IFN (LTP) <sup>4)</sup>	kW   hp	85   114	102   137	106   142	128   172	153   205	170   228	183   245	183   245	201   270
<b>Typical generator power output</b>										
Typical generator power output (COP) <sup>5)</sup>	kVA	83	98	102	127	149	166			168
Typical generator power output (PRP) <sup>5)</sup>	kVA	88	104	108	134	157	175	184	184	203
Typical generator power output (LTP) <sup>5)</sup>	kVA	93	109	114	141	165	184	185	185	204
<b>Spec. fuel consumption (PRP)<sup>6)</sup></b>										
100 % load	g/kWh   lb/hp-hr	219   0.360	206   0.339	205   0.337	212   0.348	198   0.326	202   0.332	223   0.367	223   0.367	226   0.372
75 % load	g/kWh   lb/hp-hr	213   0.330	205   0.337	205   0.337	208   0.342	199   0.327	200   0.329	221   0.363	221   0.363	222   0.365
50 % load	g/kWh   lb/hp-hr	216   0.355	210   0.345	209   0.344	212   0.348	202   0.332	202   0.332	222   0.365	222   0.365	223   0.367

## ▶ Rating table: 1013. The Genset Engine. 60 Hz

Exhaust gas optimized according to EPA Stage II

Engine type		BF4M 1013E*)	BF4M 1013EC	BF4M 1013FC	BF6M 1013E*)	BF6M 1013EC	BF6M 1013FC			
Rating category								G1	G2	G3
Speed	min <sup>-1</sup>   rpm	1800	1800	1800	1800	1800	1800	1800	1800	1800
Frequency	Hz	60	60	60	60	60	60	60	60	60
<b>Engine/genset ratings<sup>1)</sup></b>										
Continuous power, ICN (COP) <sup>2)</sup>	kW   hp	81   109	101   135	110   147	122   164	148   198	179   240			186   249
Prime power, ICN (PRP) <sup>3)</sup>	kW   hp	85   114	105   141	116   155	128   172	155   208	188   252	186   249	186   249	204   273
Limited-time running power, IFN (LTP) <sup>4)</sup>	kW   hp	89   119	110   147	122   164	134   180	163   218	197   264	204   273	204   273	225   302
<b>Typical generator power output</b>										
Typical generator power output (COP) <sup>5)</sup>	kWe	69	83	91	105	127	155			148
Typical generator power output (PRP) <sup>5)</sup>	kWe	73	86	96	111	133	163	148	148	163
Typical generator power output (LTP) <sup>5)</sup>	kWe	76	91	102	116	140	171	181	181	200
<b>Spec. fuel consumption (PRP)<sup>6)</sup></b>										
100 % load	g/kWh   lb/hp-hr	218   0.358	207   0.340	211   0.347	210   0.345	199   0.327	202   0.332	220   0.362	220   0.362	212   0.349
75 % load	g/kWh   lb/hp-hr	215   0.353	207   0.340	210   0.345	212   0.349	199   0.327	202   0.332	216   0.355	216   0.355	205   0.337
50 % load	g/kWh   lb/hp-hr	223   0.367	214   0.352	213   0.350	231   0.380	208   0.341	204   0.335	217   0.357	217   0.357	208   0.342

1) Possibly power reduction depending on altitude and temperature. Please contact DEUTZ.

2) Continuous power 100 % available at flywheel, no time limitation, plus 10 % extra power for governing purposes.

3) Prime power 100 %, mean power output 60 %, no time limitation, plus 5 % extra power for governing purposes.

4) Limited-time running power 100 %, which must be available during 500 running hrs/year, thereof max. 300 running hrs/year continuously, no overload permissible; the required extra power for governing purposes must be taken into account however.

5) Taking into account typical generator efficiency of 88.8 - 91.2 % and power factor cos (φ) = 0.8.

6) For fuel specification see operation manual.

\*) Without charge air cooling and/or EPA Stage II.

The values given in this data sheet are for information purposes only and not binding. The information given in the offer is decisive. Exhaust-optimized ratings on request.

### Standard specification

<b>Standard engine:</b>	Connection housing SAE 2, with flywheel 10"/11.5"
<b>Cooling system:</b>	Cooling system HAT, depending on engine version incl. charge air cooler, pressure fan.
<b>Exhaust system:</b>	Without silencer, with counterflange for exhaust system on the turbocharger.
<b>Filter:</b>	Lube oil filter, air filter depending on engine version loose as kit or assembled.
<b>Engine electrics:</b>	12 Volt version, electrical engine governor standard in 6-cylinder FC engines.
<b>Governor:</b>	Mechanical standard, optional electronic governor.
<b>Miscellaneous:</b>	Painted dark gray.



The engine company.

**DEUTZ AG**  
**DEUTZ MOTOR**

Deutz-Mülheimer Str. 147-149  
D-51063 Köln  
Phone: +49 (0) 2 21-8 22-0  
Fax: +49 (0) 2 21-8 22-25 68  
Internet: www.deutz.de  
eMail: info@deutz.de

Order Number  
0031 1784 / 03 / 2004 / VM-V