

MAN Diesel- und Gasmotoren zum Antrieb von Generatoren und Blockheizkraftwerken.

MAN diesel and gas engines for genset drives and cogeneration plant applications.



Dieselmotoren für Generatorantrieb / Diesel engines for genset drives

Typen- und Leistungsübersicht • Table of models and data

Motortyp ¹⁾ Engine model ¹⁾	Blockierte ISO-Nutzleistung IFN ³⁾ ISO fuel stop power IFN ³⁾	ISO Standardleistung ICXN ⁴⁾ ISO standard rating ICXN ⁴⁾	Leistungsabzug für Ventilator Kühler Deduction for radiator fan	Elektrische Leistung Electrical output	Zugehörige Aggregatleistung netto Genset rating net	Blockierte ISO-Nutzleistung IFN ³⁾ ISO fuel stop power IFN ³⁾	ISO Standardleistung ICXN ⁴⁾ ISO standard rating ICXN ⁴⁾	Leistungsabzug für Ventilator Kühler Deduction for radiator fan	Elektrische Leistung Electrical output	Zugehörige Aggregatleistung netto Genset rating net										
											1500 1/min, rpm - 50 Hz					1800 1/min, rpm - 60 Hz				
											kW	kW	kW	kW _e	kVA	kW	kW	kW	kW _e	kVA

PRP = Prime Power - Spitzenlastbetrieb / Peak Load

D 0836 LE 201	-	225	9	200	250	-	252	14	219	270
D 2866 LE 201	-	280	9	249	310	-	322	16	285	350
D 2876 LE 201	-	355	14	318	400	-	405	24	357	450
D 2848 LE 211	-	405	17	362	450	-	460	28	407	500
D 2840 LE 201	-	451	14	409	510	-	515	24	462	570
D 2840 LE 211	-	495	17	452	550	-	565	28	498	620
D 2842 LE 201	-	543	14	502	630	-	620	24	566	700
D 2842 LE 211	-	590	17	543	680	-	695	28	633	790
D 2862 LE 221 ⁵⁾	-	700	-	640	800	-	800	-	720	900

LTP = Limited Time Running Power - Notstrombetrieb / Standby Operation

D 0836 LE 203	248	-	9	220	275	277	-	14	240	310
D 2866 LE 203	360	-	9	325	410	400	-	16	360	450
D 2876 LE 203	451	-	14	410	510	507	-	24	450	560
D 2848 LE 213	495	-	17	450	550	539	-	28	480	600
D 2840 LE 203	545	-	14	500	620	585	-	24	530	660
D 2840 LE 213	610	-	17	560	700	660	-	28	600	750
D 2842 LE 203	633	-	14	580	730	718	-	24	660	820
D 2842 LE 213	702	-	17	650	810	800	-	28	735	920
D 2862 LE 223 ⁵⁾	880	-	-	800	1000	1117	-	-	1000	1250

COP = Continuous Power - Dauerbetrieb / continuous operation

PRP-Motoren sind auch mit reduzierter Leistung für den Dauerbetrieb erhältlich. Nähere Informationen auf Anfrage.
PRP engines are also available with reduced power for continuous operation. Further information on request.

Konfiguration und Abmessungen / Configuration and dimensions

Motortyp ¹⁾ Engine model ¹⁾	Zylinder und Anordnung ²⁾ Number of cylinders and arrangement ²⁾	Bohrung/Hub Bore/Stroke	Hubvolumen Displacement	Länge mit Ventilator Kühler Overall length with fan-cooled radiator	Breite mit Ventilator Kühler Overall width with fan-cooled radiator	Höhe mit Ventilator Kühler Overall height with fan-cooled radiator	Höhe Unterseite Motor-Mitte Kurbelwelle Height from bottom of engine to crankshaft centre	Gewicht Motor trocken mit Ventilator Kühler Dry weight of engine with radiator and fan
D 0836 LE 201/203	6 R	108/125	6.9	1533	960	1413	424	715
D 2866 LE 201/203	6 R	128/155	11.9	1965	1200	1748	454	1180
D 2876 LE 201/203	6 R	128/166	12.8	2046	1230	1754	454	1180
D 2848 LE 211/ 213	8 V	128/142	14.6	1850	1400	1700	467	1250
D 2840 LE 201 - 213	10 V	128/142	18.3	2125	1600	1826	456	1480
D 2842 LE 201 - 213	12 V	128/142	21.9	2342	1638	1845	480	1770
D 2862 LE 221 - 223 ⁵⁾	12 V	128/157	24.2	2419	1540	1782	432	1950

1) Motortyp

Angaben vor Typ-Nr.:

D = Wassergekühlte 4-Takt-Dieselmotoren mit direkter Einspritzung des Kraftstoffes
Angaben nach Typ-Nr.:

E = Saugmotor

TE = mit Abgasturboaufladung

LE = mit Abgasturboaufladung und Ladeluftkühlung

2) Zylinderzahl und Anordnung

R = stehend, Zylinder in Reihe

V = Zylinder in 90° V-Form

3) Blockierte ISO Nutzleistung IFN: zeitliche begrenzte, nicht überlastbare Dauerleistung 100%, die für 500 h/Jahr (davon 300 h/Jahr ohne Unterbrechung) zur Verfügung stehen muss.

5) Daten unter Vorbehalt und auf Anfrage

4) ISO Standardleistung ICXN: variable Dauerleistung, mittlere Auslastung 70%, für regeltechnische Zwecke 10% überlastbar für 1 h innerhalb von 12 h, Lüfterleistung nicht berücksichtigt.

Die Nennleistungen gelten bei einer Lufttemperatur von 298 K, einem Luftdruck 100 kPa (1000 mbar) 100 m Höhe über N.N. und bei einer relativen Luftfeuchtigkeit von 30%. Leistungsminderung aufgrund anderer Aufstellungsbezugszustände sind zu berücksichtigen.

Leistungsdefinition nach ISO 3046/1

Einsatzdefinition LTP, PRP, COP nach ISO 8528-1

1) Engine model

Detail in front of model no.:

D = Water-cooled 4-stroke Diesel engine with direct fuel injection
Detail after model no.:

E = naturally aspirated engine

TE = turbocharged engine

LE = turbocharged and intercooled engine

2) Number of cylinders and arrangement

R = vertically arranged in-line

V = cylinders in 90° V arrangement

3) ISO fuel stop power IFN: 100% continuous power output for limited period without overload capability; must be available for 500 h/year (300 h/year of this without interruption).

5) data are with reservation and on request

4) ISO standard rating ICXN: variable continuous power output, average 70% use of capacity, with 10% overload capability for technical purposes for one hour in twelve; fan output not taken into account.

These ratings apply at an air temperature of 298 K, an air pressure of 100 kPa (1000 mbar) 100 m above sea level and a relative humidity of 30%. Other site conditions may result in reduced output.

Rating definition to ISO 3046/1

application definition LTP, PRP, COP to ISO 8528-1

D2366451 · mu 11094 · Printed in Germany

Technische Daten sind unverbindlich.

Änderungen, zugunsten des technischen Fortschritts, vorbehalten.

Technical data are not binding.

We reserve the right to make modifications in the course of technical progress.

MAN Diesel SE
Vogelweiherstr. 33
90441 Nürnberg

MAN Diesel SE
Vogelweiherstr. 33
90441 Nuremberg, Germany

highspeed@mandiesel.com
http://www.mandiesel.com

MAN Diesel- und Gasmotoren zum Antrieb von Generatoren und Blockheizkraftwerken.

MAN diesel and gas engines for genset drives and cogeneration plant applications.



Gasmotoren für Blockheizkraftwerke / Gas engines for cogeneration plants

Typen- und Leistungsübersicht • Table of models and data

Motortyp ¹⁾ Engine model ¹⁾	Verbrennung ⁴⁾ Combustion ⁴⁾	Abgasstatus NO _x Exhaust-gas status NO _x	1500 min ⁻¹ , rpm - 50 Hz			1800 min ⁻¹ , rpm - 60 Hz		
			Blockierte ISO Standardleistung ISO standard fuel stop power			Blockierte ISO Standardleistung ISO standard fuel stop power		
			mg/m ³	kW _{mech.}	kW	kW	kW _{mech.}	kW
				Nutzwärme im Kühlmittel Recoverable coolant heat	Nutzwärme im Abgas bezogen auf 120°C Recoverable exhaust-gas heat based 120°C		Nutzwärme im Kühlmittel Recoverable coolant heat	Nutzwärme im Abgas bezogen auf 120°C Recoverable exhaust-gas heat based 120°C

Im Einsatz mit Erdgas / Operation with natural gas

COP = Continuous Power - Dauerbetrieb / continuous operation

E 0834 E 312	m	<500	37	29	26	45	31	35
E 0834 E 312	st	<5000	47	39	24	53	44	28
E 0834 E 302	st	<6500	54	46	33	62	51	40
E 0834 LE 302 ³⁾	m	<500	68	55	34	-	-	-
E 0836 E 312	m	<500	56	41	37	64	58	48
E 0836 E 302	st	<7000	75	63	46	85	70	55
E 0836 LE 202	m	<500	110	68	64	110	74	69
E 2876 E 312	st	<4500	150	128	79	170	145	98
E 2876 LE 302	m	<500	210	99	143	210	106	157
E 2848 LE 322	m	<500	265	150	145	295	171	179
E 2842 E 312	st	<6500	250	236	129	280	260	156
E 2842 LE 322	m	<500	420	236	222	420	258	244

Im Einsatz mit Biogas / Operation with bio gas

COP = Continuous Power - Dauerbetrieb / continuous operation

E 0834 LE 302 ³⁾	m	<500	68	54	31	-	-	-
E 0836 LE 202	m	<500	110	68	59	110	77	67
E 2876 TE 302	m	<500	130	124	57	-	-	-
E 2848 LE 302	m	<500	200	98	129	200	106	137
E 2848 LE 322	m	<500	265	152	152	265	164	169
E 2842 LE 322	m	<500	380	205	228	380	232	243

Konfiguration und Abmessungen Gasmotoren für Blockheizkraftwerke / Configuration and dimensions cogeneration gas engine

Motortyp ¹⁾ Engine model ¹⁾	Zylinderzahl und Anordnung ²⁾ Number of cylinders, arrangement ²⁾	Bohrung/Hub Bore/Stroke	Hubvolumen Swept volume	Kompressionsverhältnis Compression ratio	Schwungradgehäuse Flywheelhousing	Länge Length	Breite Width	Höhe Height	Gewicht Motor trocken Weight engine dry
E 0834 E 312	4 R	108/125	4,5	13:1	SAE 2	825	740	940	430
E 0834 E 302	4 R	108/125	4,5	13:1	SAE 2	825	740	940	430
E 0834 LE 302 ³⁾	4 R	108/125	4,6	11:1	SAE 2	1055	809	866	485
E 0836 E 302	6 R	108/125	6,9	13:1	SAE 2	1090	740	930	520
E 0836 E 312	6 R	108/125	6,9	13:1	SAE 2	1090	740	930	520
E 0836 LE 202	6 R	108/125	6,9	11:1	SAE 2	1300	750	1030	605
E 2876 E 312	6 R	128/166	12,8	12:1	SAE 1	1330	830	1035	830
E 2876 TE 302	6 R	128/166	12,8	12:1	SAE 1	1545	835	1210	920
E 2876 LE 302	6 R	128/166	12,8	11:1	SAE 1	1520	830	1210	990
E 2848 LE 322	8 V-90°	128/142	14,6	12:1	SAE 1	1225	1176	1087	1200
E 2842 E 312	12 V-90°	128/142	21,9	12,5:1	SAE 1	1490	1265	1240	1300
E 2842 LE 322	12 V-90°	128/142	21,9	12:1	SAE 1	1570	1142	1155	1420

1) Motortyp

Angaben vor Typ-Nr.:

E = Wassergekühlte 4-Takt-Otto-Gas-Motoren mit Fremdzündung

Angaben nach Typ-Nr.:

E = Saugmotor

TE = mit Abgasturboaufladung

LE = mit Abgasturboaufladung und Ladeluftkühlung

2) Zylinderzahl und Anordnung

R = stehend, Zylinder in Reihe

V = Zylinder in 90° V-Form

3) Daten unter Vorbehalt

4) Verbrennung

st = stöchiometrisch

m = mager

Die Nennleistungen gelten bei einer Lufttemperatur von 298 K, einem Luftdruck 100 kPa (1000 mbar) 100 m Höhe über N.N. und bei einer relativen Luftfeuchtigkeit von 30%. Leistungsminde rung aufgrund anderer Aufstellungsbezugszustände sind zu berücksichtigen.

Leistungsdefinition nach ISO 3046/1

Einsatzdefinition LTP, PRP, COP nach ISO 8528-1

Die Leistungsangaben für Gasmotoren beziehen sich auf Betrieb mit Erdgas Hu = 10 kWh/Nm³; Methanzahl MZ > 80 und den Betrieb mit Biogas Hu=6 kWh/Nm³; Methanzahl MZ > 140. Betrieb mit MZ < 80 und mit anderen Gasarten nur nach Rücksprache mit Werk Nürnberg.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

1) Engine model

Detail in front of model no.:

E = Water-cooled 4-stroke Otto-gas-engines with spark injection

Detail after model no.:

E = naturally aspirated engine

TE = turbocharged engine

LE = turbocharged and intercooled engine

2) Number of cylinders and arrangement

R = vertically arranged in-line

V = cylinders in 90° V arrangement

3) data are published with reservation

4) Combustion

st = stoichiometric

m = lean burn

These ratings apply at an air temperature of 298 K, an air pressure of 100 kPa (1000 mbar) 100 m above sea level and a relative humidity of 30%. Other site conditions may result in reduced output.

Rating definition to ISO 3046/1

application definition LTP, PRP, COP to ISO 8528-1

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.

Performance data of gas engines with natural gas Hu = 10 kWh/Nm³ methane number MZ > 80 and biogas Hu=6 kWh/Nm³ methane number MZ > 140. Engine operation with MZ < 80 or other types of gas after consultation with Nuremberg works only.