VMAN Gas Genset

Highly efficient, reliable and economical.

100 to 2,000 kWe.

www.vman-engine.com

VMAN Gas Engine

CT Series

Applications: Small-Scale Distributed Energy / Commercial & Industrial Use

Compact & Efficient Platform
Electrical Power: 50 kWe – 100 kWe

- Independently developed by VMAN
- Small-bore inline 4-cylinder and 6-cylinder configuration
- Four-valve structure for improved intake and exhaust efficiency
- Optimized combustion and fuel economy
- Equipped with Woodward control system
- Compact structure, small footprint, space-saving design

CET Series

Applications: Continuous Operation / High-Load Conditions

High-Performance Platform
Electrical Power: 200 kWe – 250 kWe

- Engine platform designed and developed by AVL (Austria)
- High-strength inline 6-cylinder block
- Symmetrical gantry frame with deep-skirt structure
- Four-stroke, four-valve cylinder head
- Double water-jacket cooling system
- Overhead camshaft design
- Low lubricating oil consumption
- Key components sourced from global leading brands

DT Series

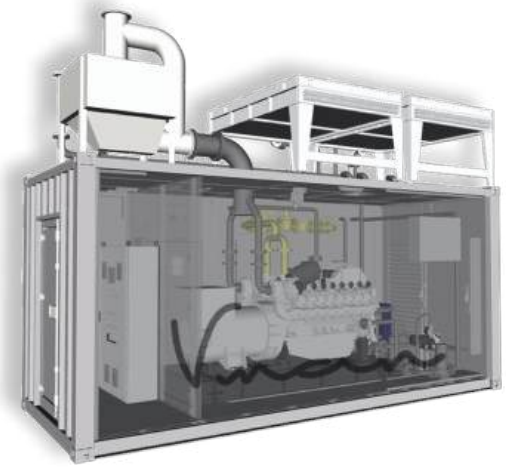
Applications: Distributed Energy / CHP / Medium & Large Power Plants

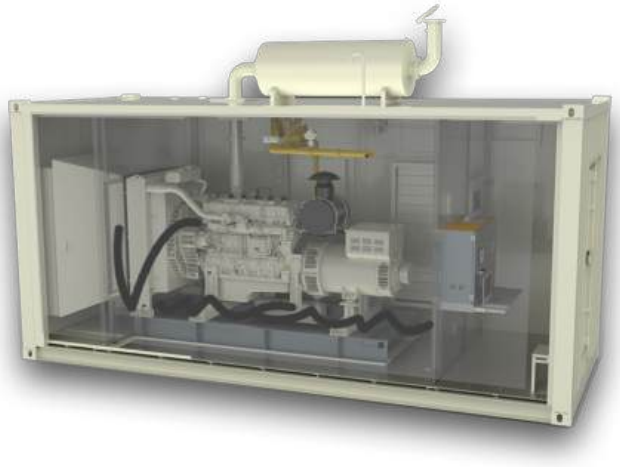
Proven CHP Platform
Electrical Power: 250 kWe – 1,200 kWe

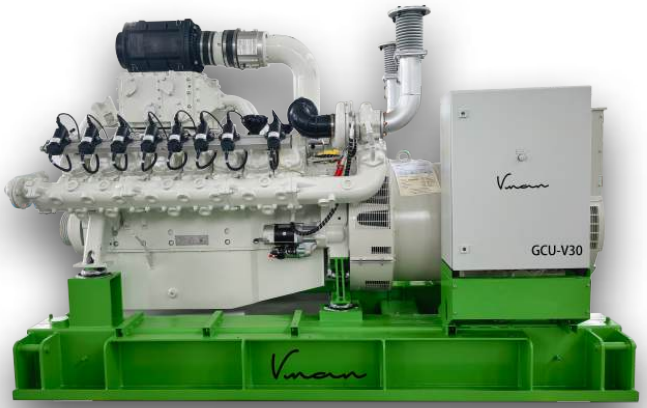
- Developed based on a European benchmark engine platform
- 90° V-type cylinder configuration with modular single-cylinder maintenance
- Individual Cylinder Heads
- 130 mm / 170 mm “golden ratio” bore platform
- Optimized for CHP applications with full life-cycle validation in Europe
- Compatible with natural gas, biogas, LPG, ammonia, and variable-composition fuels
- Time to first overhaul: up to 64,000 hours
- Total global installed capacity exceeding 250 MW


VMAN gas engines are dedicated to cogeneration systems, with modular design and imported components, covering all energy needs of industrial and commercial scenarios, ranging from 100 kWe to 2,000 kWe.

Contents



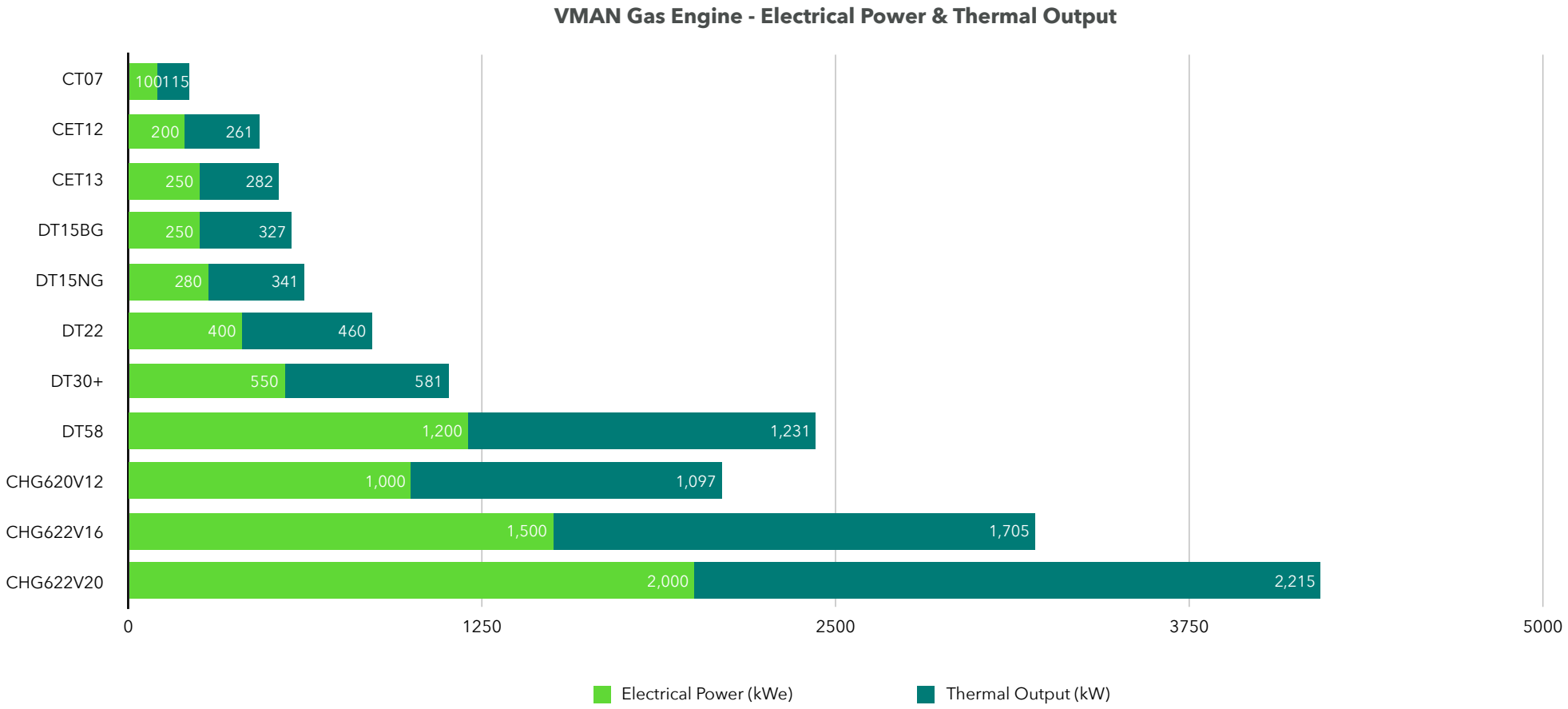


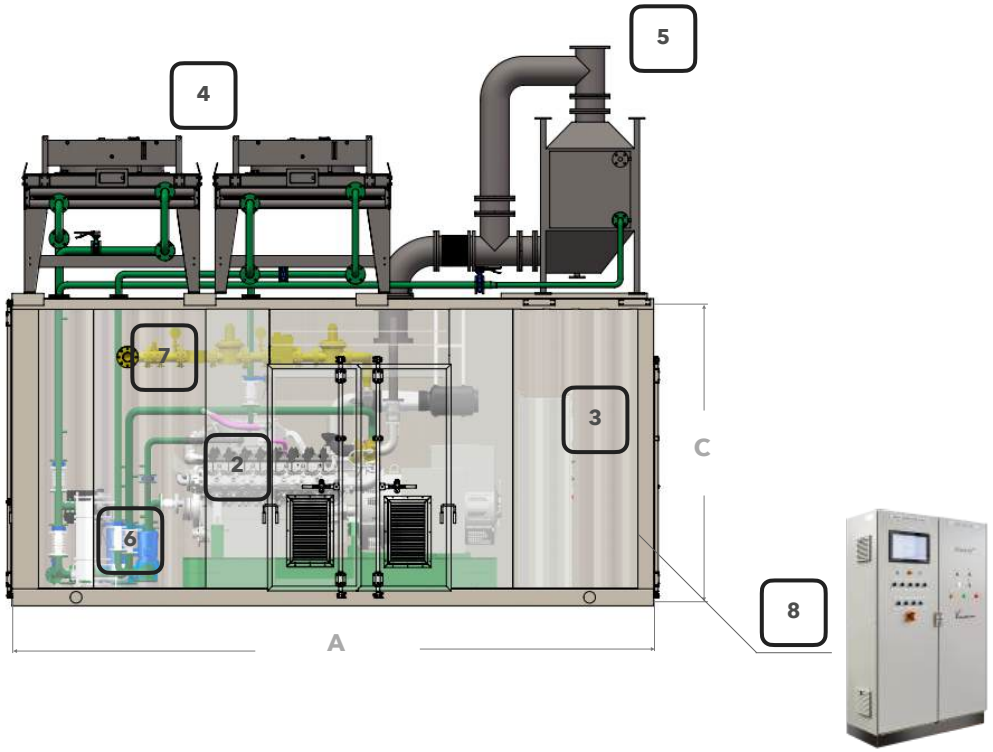


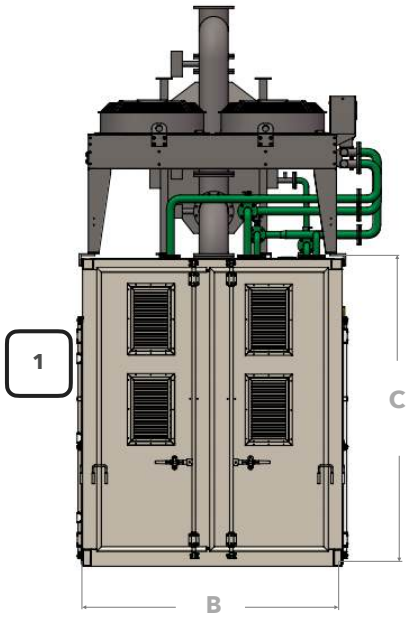
Product Overview.

Electrical power v.s. thermal output & container.

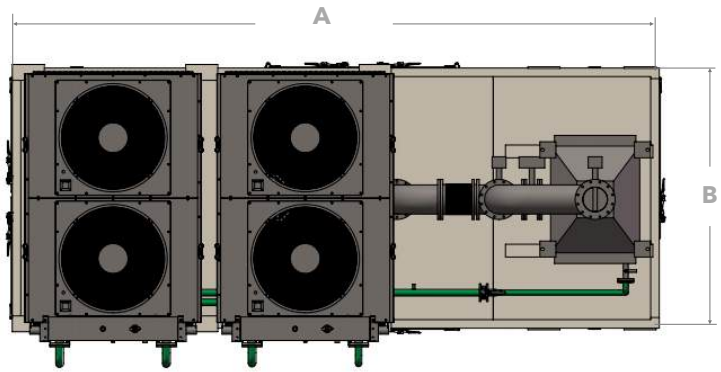
VMAN Gas Engine covers 100-2,000 kWe full power range with three core series (CT/DT/CET) and military-grade HND series, featuring high total efficiency, multi-fuel adaptation and imported core components. All models are dedicated to cogeneration systems, matching the energy needs of small to large-scale industrial and commercial scenarios.







1. Containerized Gas Genset
2. Gas Generator Set
3. Control Room
4. Radiator
5. Heat Recovery Device
6. Cooling System Skid
7. Gas Supply Valve Train
8. Generator Panel



Genset	Engine	A (mm)	B (mm)	C (mm)
P100GF3	CT07	3800	1500	2250
P200GF3	CET12	6058	2438	2896
P250GF3	CET13	6058	2438	2896
P280GF3	DT15	6058	2438	2896
P400GF3	DT22	6058	2438	2896
P500GF3	DT30	6058	2438	2896
P550GF3	DT30+	6058	2438	2896
P1000GF3	DT58	12192	2438	2896
P1200GF3	DT58	12192	2438	2896
P1000GF3	CHG620V12	12192	2438	2896
P1500GF3	CHG622V16	13000	3200	3500
P2000GF3	CHG622V20	13000	3200	3500

* These parameters do not include cooling systems or exhaust systems.

Biogas plants

Community power supply

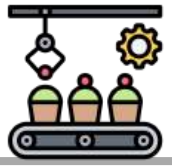
Hospitals

Landfill sites

Mining

Greenhouses

Hotels



Industry

Sewage treatment plants

Many different areas of use.

VMAN gas engines have already demonstrated their strengths in many places, e.g. in biogas plants, landfill sites, sewage treatment plants, office and administration buildings, hotels, shopping centers, horticultural businesses and a wide variety of industrial and commercial applications. Nowadays, virtually every industry is suitable for the use of cogeneration powered by VMAN gas engines.

CT07

Compact and stable. 100 kWe.

Main Technical Data

Item	Unit	Value
Electrical Power	kWe	100
Thermal Output*	kW	115

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 100 kWe.

Item	Unit	Data		
Load	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	100	75	50
Jacket water heat	[kW ±8%]	58	47	35
Intercooler water heat	[kW ±8%]	21	13	8
Lubricating oil heat	[kW ±8%]	--	--	--
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	57	46	32
Exhaust gas temperature	[°C]	526	526	516
Tail gas flow (wet)	[kg/h]	504	405	293
Combustion Air Volume	[kg/h]	484	389	282
Engine radiation heat	[kW ±8%]	16	6	6
Fuel consumption	[kW+5%]	261	210	152
Electrical efficiency		38.3%	35.7%	32.9%
Thermal efficiency		44.1%	44.3%	44.1%
Total efficiency		82.4%	80.0%	77.0%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>80 kPa
Lube oil pressure @ rated speed	200±10 kPa
Max.Permissible Oil Temperature	≤115 °C
Oil capacity	18 L

II) Oil Selection Recommendations

No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Type	LSA44.3 L10
Rated Power (kVA)	150kVA / 120kWe
Power factor	0.8
Frequency (Hz)	50
Voltage (V)	400
Rated voltage range	+0.5/-0.5%
Excitation	Self-excited - Brushless - Type: AREP
AVR type	Leroy Somer - R250
Speed (rpm)	1500
Nominal current (A)	217
Efficiency (%)	95.79
Classes (Insulation / Temperature Rise)	H/H
Winding type	P2/3
Ambient temperature	40 °C
Altitude	1000 m
Open type Size	2780 x 960 x 1633
Container type Size (mm)	3800 x 1500 x 2250
Weight of open type (kg)	1750
Weight of container type (kg)	3500
Color	RAL9002 (white)

Emission Limits

CH_4	1069.5 ppm
O_2	≤5%
N_2	73%-77%
CO_2	64900 ppm
NO_x	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	705 ppm
DUST	Background Particulate Matter

CET12 / CET13

Premium and durable. 200 to 250 kWe.

Main Technical Data

Genset	200kWe CET12		250kWe CET13	
Item	Unit	Value	Unit	Value
Electrical Power	kWe	200	kWe	250
Thermal Output*	kW	261	kW	271

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 200 or 250 kWe.

Genset		200kWe CET12			250kWe CET13		
Item	Unit	Value					
Load.	[%]	100	75	50	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	200	150	100	250	187.5	125
Jacket water heat	[kW ±8%]	103	86	63	140	116	81
Intercooler water heat	[kW ±8%]	45.6	22.4	14.4	57	35	22
Lubricating oil heat	[kW ±8%]	--	--	--	--	--	--
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	112	90.4	61.6	142	115	78
Exhaust gas temperature	[°C]	520	518	510	526	526	516
Tail gas flow (wet)	[kg/h]	1005	812	566	1256	1015	708
Combustion Air Volume	[kg/h]	966	780	544	1207	975	680
Engine radiantion heat	[kW ±8%]	32	13	11	40	16	14
Fuel consumption	[kW+5%]	520.8	420.8	293.6	651	526	367
Electrical efficiency		38.4%	35.6%	34.1%	38.4%	35.64%	34.1%
Thermal efficiency		41.3%	41.9%	42.4%	46.5%	47.5%	48.2%
Total efficiency		79.7%	77.6%	76.5%	84.9%	83.2%	82.3%

Oil System

I) Lubrication System

Item	200kWe CET12	250kWe CET13
Lube oil pressure @ idle speed	>100 kPa	>100 kPa
Lube oil pressure @ rated speed	550±10 kPa	550±10 kPa
Max.Permissible Oil Temperature	≤120 °C	≤120 °C
Oil capacity	41.6 L	41.6 L

II) Oil Selection Recommendations

No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Genset	200kWe CET12	250kWe CET13
Item	LSA46.3 L10	LSA46.3 L11
Rated Power (kVA)	325kVA 260kWe	365kVA 292kWe
Power factor	0.8	0.8
Frequency (Hz)	50	50
Voltage (V)	400	400
Rated voltage range	+5/-5%	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP	Self-excited - Brushless - Type: AREP
AVR type	Leroy Somer - R250	Leroy Somer - R250
Speed (rpm)	1500	1500
Nominal current (A)	469	527A
Efficiency (%)	95.79	95.69
Classes	H/H	H/H
Winding type	P2/3	P2/3
Ambient temperature	40 °C	40 °C
Altitude	1000 m	1000 m
Open type Size	3340 x 1280 x 1969	3340 x 1280 x 1969
Container type Size (mm)	6058 x 2438 x 2896	6058 x 2438 x 2896
Weight of open type (kg)	3500	3550
Weight of container type (kg)	9450	8500
Color	RAL9002 (white)	RAL9002 (white)

Emission Limits

Item	200kWe CET12	250kWe CET13
CH_4	1022.5 ppm	1069.5 ppm
O_2	≤5%	≤5%
N_2	71%-75%(Standard values)	73%-77%(Standard values)
CO_2	56523.7 ppm	70654.63 ppm
NO_x	500mg/Nm3 @ 5% O2	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content	
CO	705 ppm	705 ppm
DUST	Background Particulate Matter	

DT15NG/BG

Reliable and versatile. 250 to 280 kWe.

Main Technical Data

Genset	280kWe DT15NG		250kWe DT15BG	
Item	Unit	Value	Unit	Value
Electrical Power	kWe	280	kWe	250
Thermal Output*	kW	341	kW	327

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 250 or 280 kWe.

Gneset		280kWe DT15NG			250kWe DT15BG		
Item		Value					
Load	[%]	100	75	50	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	280	210	140	250	187.5	125
Jacket water heat	[kW ±8%]	157	127	96	140	115	87
Intercooler water heat	[kW ±8%]	65	38	19	59	35	17
Lubricating oil heat	[kW ±8%]	--	--	--	--	--	--
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	160	124	85	167	131	92
Exhaust gas temperature	[°C]	526	526	516	566	566	556
Tail gas flow (wet)	[kg/h]	1412	1093	766	1339	1055	757
Combustion Air Volume	[kg/h]	1357	1048	734	1287	1013	725
Fuel consumption	[kW+5%]	732	585	424	694	565	419
Electrical efficiency		38.3%	35.9%	33.0%	36.0%	33.2%	29.8%
Thermal efficiency		43.3%	42.9%	42.6%	44.1%	43.6%	42.8%
Total efficiency		81.6%	78.8%	75.6%	80.1%	76.8%	72.6%

Oil System

I) Lubrication System	
Lube oil pressure @ idle speed	>150 kPa
Lube oil pressure @ rated speed	360 ±10 kPa
Max.Permissible Oil Temperature	≤110 °C
Oil capacity	27 L

II) Oil Selection Recommendations		
No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Type	LSA46.3 L11
Rated Power (kVA)	365kVA 292kWe
Power factor	0.8
Frequency (Hz)	50
Voltage (V)	400
Rated voltage range	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP
AVR type	Leroy Somer - R250
Speed (rpm)	1500
Nominal current (A)	527A
Efficiency (%)	95.69
Classes (Insulation / Temperature Rise)	H/H
Winding type	P2/3
Ambient temperature	40 °C
Altitude	1000 m
Open type Size	3340 x 1280 x 1969
Container type Size (mm)	6058 x 2438 x 2896
Weight of open type (kg)	3550
Weight of container type (kg)	8500
Color	RAL9002 (white)

Emission Limits

Item	280kWe DT15NG	250kWe DT15BG
CH_4	1070 ppm	1200-1800 ppm
O_2	≤5%	
N_2	73%-77%(Standard values)	68%-73%(Typical)
CO_2	70655 ppm	100000-130000 ppm
NO_x	500mg/Nm3 @ 5% O2	300-400mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content	
CO	705 ppm	700-900 ppm
DUST	Background Particulate Matter	

DT22

High-performance and durable. 400 kWe.

Main Technical Data

Item	Unit	Value
Electrical Power	kWe	400
Thermal Output*	kW	460

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 400 kWe.

Item	Unit	Data		
Load	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	400	300	200
Jacket water heat	[kW ±8%]	233	188	140
Intercooler water heat	[kW ±8%]	91	63	35
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	227	182	129
Exhaust gas temperature	[°C]	526	526	516
Tail gas flow (wet)	[kg/h]	2005	1609	1167
Combustion Air Volume	[kg/h]	1926	1546	1122
Engine radiantion heat	[kW ±8%]	28	22.4	19.6
Fuel consumption	[kW+5%]	1039	834	605
Electrical efficiency		38.5%	36.0%	33.1%
Thermal efficiency		44.3%	44.4%	44.5%
Total efficiency		82.8%	80.3%	77.5%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>150 kPa
Lube oil pressure @ rated speed	390 ±10 kPa
Max.Permissible Oil Temperature	≤115 °C
Oil capacity	57 L

II) Oil Selection Recommendations

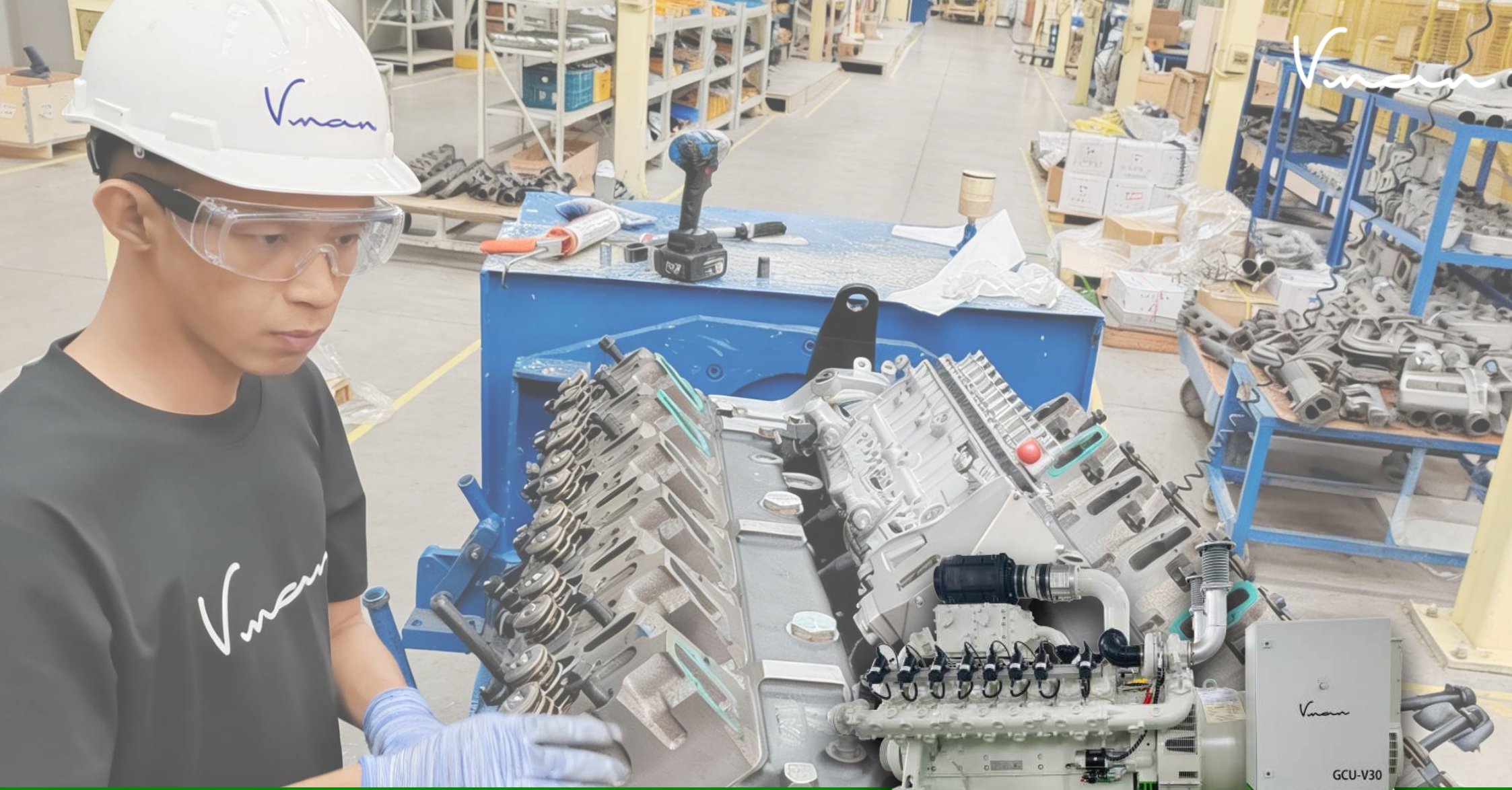
No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Type	LSA47.3 M7
Rated Power (kVA)	500kVA 400kWe
Power factor	0.8
Frequency (Hz)	50
Voltage (V)	400
Rated voltage range	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP
AVR type	Leroy Somer - D350 - Digital
Speed (rpm)	1500
Nominal current (A)	722
Efficiency (%)	96.49
Classes (Insulation / Temperature Rise)	H/H
Winding type	P2/3
Ambient temperature	40 °C
Altitude	1000 m
Open type Size	3457 x 1240 x 1376
Container type Size (mm)	6058 x 2438 x 2896
Weight of open type (kg)	3882
Weight of container type (kg)	10808
Color	RAL9002 (white)

Emission Limits

CH_4	1069.5 ppm
O_2	≤5%
N_2	73%-77%(Standard values)
CO_2	70654.63 ppm
NO_x	500mg/Nm^3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	705 ppm
DUST	Background Particulate Matter



DT30+

High-power and efficient. 550 kWe.

Main Technical Data

Item	Unit	Value
Electrical Power	kWe	550
Thermal Output*	kW	581

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 550 kWe.

	Unit	Data		
Load	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	550	413	275
Jacket water heat	[kW ±8%]	453	349	251
Intercooler water heat	[kW ±8%]	70	60	47
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	219	161	105
Exhaust gas temperature	[°C]	396	396	376
Tail gas flow (wet)	[kg/h]	2840	2095	1472
Combustion Air Volume	[kg/h]	2729	2011	1410
Engine radiantion heat	[kW ±8%]	48	38	34
Fuel consumption	[kW+5%]	1472	1122	815
Electrical efficiency		37.4%	36.8%	33.7%
Thermal efficiency		45.7%	45.5%	43.7%
Total efficiency		83.0%	82.2%	77.5%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>150 kPa
Lube oil pressure @ rated speed	400 ±10 kPa
Max.Permissible Oil Temperature	≤115 °C
Oil capacity	78 L

II) Oil Selection Recommendations

No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Type	LSA49.3 M6
Rated Power (kVA)	583kVA 750 kWe
Power factor	0.8
Frequency (Hz)	50
Voltage (V)	400
Rated voltage range	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP
AVR type	Leroy Somer - D350 - Digital
Speed (rpm)	1500
Nominal current (A)	1054A
Efficiency (%)	96.64
Classes (Insulation / Temperature Rise)	H/H
Winding type	P2/3
Ambient temperature	40 °C
Altitude	1000 m
Open type Size	3457 x 1240 x 1376
Container type Size (mm)	6058 x 2438 x 2896
Weight of open type (kg)	4574
Weight of container type (kg)	11500
Color	RAL9002 (white)

Emission Limits

CH_4	1069.5 ppm
O_2	≤5%
N_2	73%-77%(Standard values)
CO_2	70654.63 ppm
NO_x	500mg/Nm^3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	705 ppm
DUST	Background Particulate Matter

DT58

High-output and durable. 1,200 kWe.

Main Technical Data

	Unit	Value
Electrical Power	kWe	1200
Thermal Output*	kW	1231

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 1,200 kWe.

	Unit	Data		
Load.	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	1200	900	600
Jacket water heat	[kW ±8%]	567	476	355
Intercooler water heat	[kW ±8%]	240	181	113
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	664	542	392
Exhaust gas temperature	[°C]	530	540	550
Tail gas flow (wet)	[kg/h]	5949	4734	3344
Combustion Air Volume	[kg/h]	5731	4561	3222
Fuel consumption	[kW+5%]	2898	2306	1629
Electrical efficiency		41.4%	39.0%	36.8%
Thermal efficiency		42.5%	44.1%	45.9%
Total efficiency		83.9%	83.2%	82.7%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>300 kPa
Lube oil pressure @ rated speed	600 ±10 kPa
Max.Permissible Oil Temperature	≤105 °C
Oil capacity	300 L

II) Oil Selection Recommendations

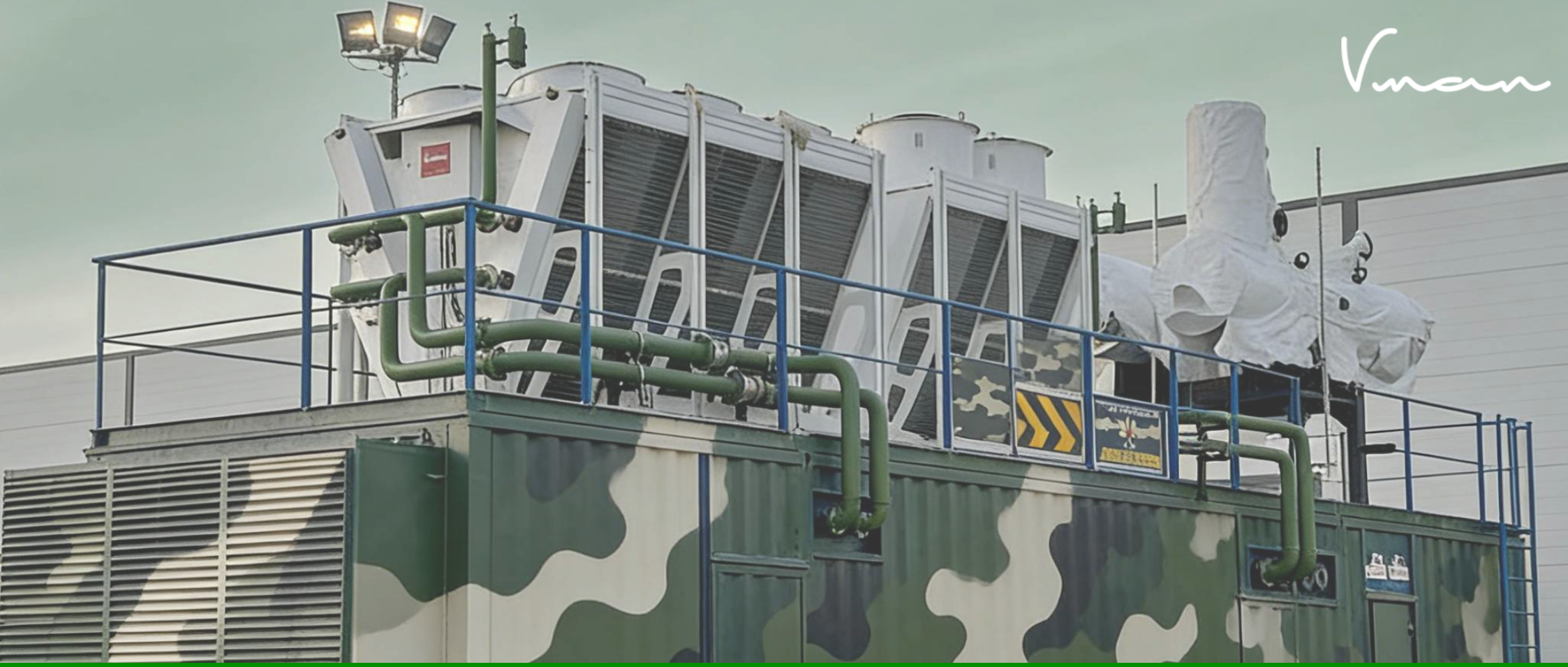
No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Model	**10.5kV alternator**	**6.3kV alternator**	**400V alternator**
Type	LSA52.3VL6	LSA52.2XL65	LSA50.2L8
Rated Power (kVA)	1500kVA 1200kWe	1690kVA 1352kWe	1500kVA 1200kWe
Power factor	0.8	0.8	0.8
Frequency (Hz)	50	50	50
Voltage (V)	10500	6600	400
Rated voltage range	+5/-5%	+5/-5%	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI
AVR type	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital
Speed (rpm)	1500	1500	1500
Nominal current (A)	69	155	2165
Efficiency (%)	97.16	96.91	96.77
Classes (Insulation / TR)	H/H	H/H	H/H
Winding type	P5/6	P5/6	P2/3
Ambient temperature	40 °C	40 °C	40 °C
Altitude	1000 m	1000 m	1000 m
Open type Size	4422 x 1796 x 2318		
Container type Size (mm)	40' High Cube Container (LxWxH): 12192 x 2438 x 2896		
Weight of open type (kg)	13000		
Weight of container type	20700		
Color	RAL9002 (white)		

Emission Limits

CH_4	≤1500 ppm
O_2	≤8.5%
N_2	84-85%
CO_2	6.50%
NO_x	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	≤800 ppm
DUST	Background Particulate Matter



HND. Military Quality Gas Engine.

CHG620V12 / CHG622V16 / CHG622V20

HND Military Quality Gas Engine

HND Gas Engine on the basis of the licensed technology from MWM Company (Germany) , started produced MWM 234 series diesel engines which type V6, V8 and V12, MWM604BL6 series diesel engines and TBD620 series V8, V12 and V16 diesel engines. In 2007, HND obtained the license of manufacturing L16/24 and L21/31 engines from MAN B&W Co., and start mass production in 2008. At present, diesel engine power range from 110 kWe to 2,336 kWe.

In 2005, HND company researched and developed gas engines with its own intellectual property which technology on the basis of the MWM TBD620 diesel engine. Now which products contain CHG620V12, CHG622V16 and CHG622V20, 3 series gas engines, gas engines power range from 1,000 kWe to 2,000 kWe and gas generator power range from 1,000 kWe to 2,000 kWe.

Advanced turbocharged, intercooler, four-stroke V-type gas engine adopts the same technology as the most advanced international gas engine. V-type gas engine, cylinder arrangement with 90 ° angle easily for repairing and maintenance.

The HND Gas engine products range in electrical power from 1,000 kWe to 2,000 kWe.

CHG620V12

Reliable and premium. 1,000 kWe.

Main Technical Data

	Unit	Value
Electrical Power	kWe	1000
Thermal Output*	kW	1097

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 1,000 kWe.

	Unit	Data		
Load.	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	1000	750	500
Jacket water heat	[kW ±8%]	529	431	302
Intercooler water heat	[kW ±8%]	171	126	91
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	568	464	342
Exhaust gas temperature	[°C]	530	540	550
Tail gas flow (wet)	[kg/h]	5083	4057	2917
Combustion Air Volume	[kg/h]	4897	3908	2810
Fuel consumption	[kW+5%]	2476	1976	1421
Electrical efficiency		40.4%	38.0%	35.2%
Thermal efficiency		44.3%	45.3%	45.3%
Total efficiency		84.7%	83.3%	80.5%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>300 kPa
Lube oil pressure @ rated speed	460 kPa-520 kPa
Max.Permissible Oil Temperature	≤90 °C
Oil capacity	150 L

II) Oil Selection Recommendations

No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

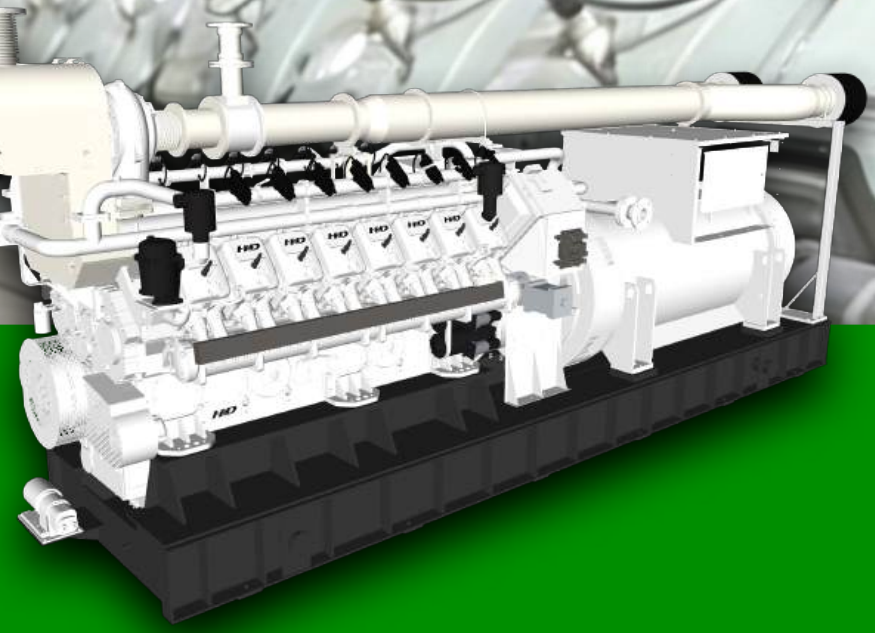
Alternator

Model	**10.5kV alternator**	**6.3kV alternator**	**400V alternator**
Type	LSA52.3VL6	LSA52.2XL65	LSA50.2L8
Rated Power (kVA)	1500kVA 1200kWe	1690kVA 1352kWe	1500kVA 1200kWe
Power factor	0.8	0.8	0.8
Frequency (Hz)	50	50	50
Voltage (V)	10500	6600	400
Rated voltage range	+5/-5%	+5/-5%	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI
AVR type	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital
Speed (rpm)	1500	1500	1500
Nominal current (A)	69	155	2165
Efficiency (%)	97.16	96.91	96.77
Classes Insulation / TR)	H/H	H/H	H/H
Winding type	P5/6	P5/6	P2/3
Ambient temperature	40 °C	40 °C	40 °C
Altitude	1000 m	1000 m	1000 m
Open type Size	4741 x 1520 x 2254		
Container type Size (mm)	40′ High Cube Container (LxWxH): 12192 x 2438 x 2896		
Weight of open type (kg)	9940		
Weight of container type (kg)	17640		
Color	RAL9002 (white)		

Emission Limits

CH_4	≤1500 ppm
O_2	≤8.5%
N_2	75%-76%
CO_2	6.30%
NO_x	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	≤920 ppm
DUST	Background Particulate Matter

CHG622V16



Max-efficiency and heavy-duty. 1,500 kWe.

Main Technical Data

	Unit	Value
Electrical Power	kWe	1500
Thermal Output*	kW	1705

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 1,500 kWe.

	Unit	Data		
Load.	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	1500	1125	750
Jacket water heat	[kW ±8%]	872	698	488
Intercooler water heat	[kW ±8%]	151	121	91
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	833	684	498
Exhaust gas temperature	[°C]	528	538	548
Tail gas flow (wet)	[kg/h]	7495	6007	4266
Combustion Air Volume	[kg/h]	7221	5787	4110
Fuel consumption	[kW+5%]	3651	2926	2078
Electrical efficiency		41.1%	38.4%	36.1%
Thermal efficiency		46.7%	47.2%	47.4%
Total efficiency		87.8%	85.7%	83.5%

Oil System

I) Lubrication System

Lube oil pressure @ idle speed	>300 kPa
Lube oil pressure @ rated speed	460 kPa-520 kPa
Max.Permissible Oil Temperature	≤90 °C
Oil capacity	240 L

II) Oil Selection Recommendations

No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Model	**10.5kV alternator**	**6.3kV alternator**	**400V alternator**
Type	LSA53.2XL11	LSA52.2XL80	LSA52.3 S7
Rated Power (kVA)	2500kVA 2000kWe	2000kVA 1600kWe	2200kVA 1760kWe
Power factor	0.8	0.8	0.8
Frequency (Hz)	50	50	50
Voltage (V)	10500	6600	400
Rated voltage range	+5/-5%	+5/-5%	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI
AVR type	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital
Speed (rpm)	1500	1500	1500
Nominal current (A)	137	183	3175
Efficiency (%)	97.16	97.5	97.5
Classes (Insulation / TR)	H/H	H/H	H/H
Winding type	P5/6	P5/6	P2/3
Ambient temperature	40 °C	40 °C	40 °C
Altitude	1000 m	1000 m	1000 m
Open type Size	6703 x 1997 x 2643		
Container type Size (mm)	Special Container: 3500 x 3500 x 13000		
Weight of open type (kg)	17500		
Weight of container type (kg)	37000		
Color	RAL9002 (white)		

Emission Limits

CH_4	≤2000 ppm
O_2	≤8.5%
N_2	75%-76%
CO_2	6.30%
NO_x	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	≤920 ppm
DUST	Background Particulate Matter

CHG622V20

Ultra-power and robust. 2,000 kWe.

Main Technical Data

	Unit	Value
Electrical Power	kWe	2000
Thermal Output*	kW	2215

* The thermal output can be fully utilized only when the electrical power is achieved at its full potential which is 2,000 kWe.

	Unit	Data		
Load.	[%]	100	75	50
Genset power - ISO 8528-1 COP	[kWe]	2000	1500	1000
Jacket water heat	[kW ±8%]	1116	930	651
Intercooler water heat	[kW ±8%]	195	155	93
Lubricating oil heat	[kW ±8%]	–	–	–
Heat after cooling of exhaust gases to set temperature	[kW ±8%]	1099	896	651
Exhaust gas temperature	[°C]	526	536	546
Tail gas flow (wet)	[kg/h]	9943	7904	5611
Combustion Air Volume	[kg/h]	9578	7614	5405
Fuel consumption	[kW+5%]	4843	3850	2733
Electrical efficiency		41.3%	39.0%	36.6%
Thermal efficiency		45.8%	47.4%	47.7%
Total efficiency		87.0%	86.4%	84.2%

Oil System

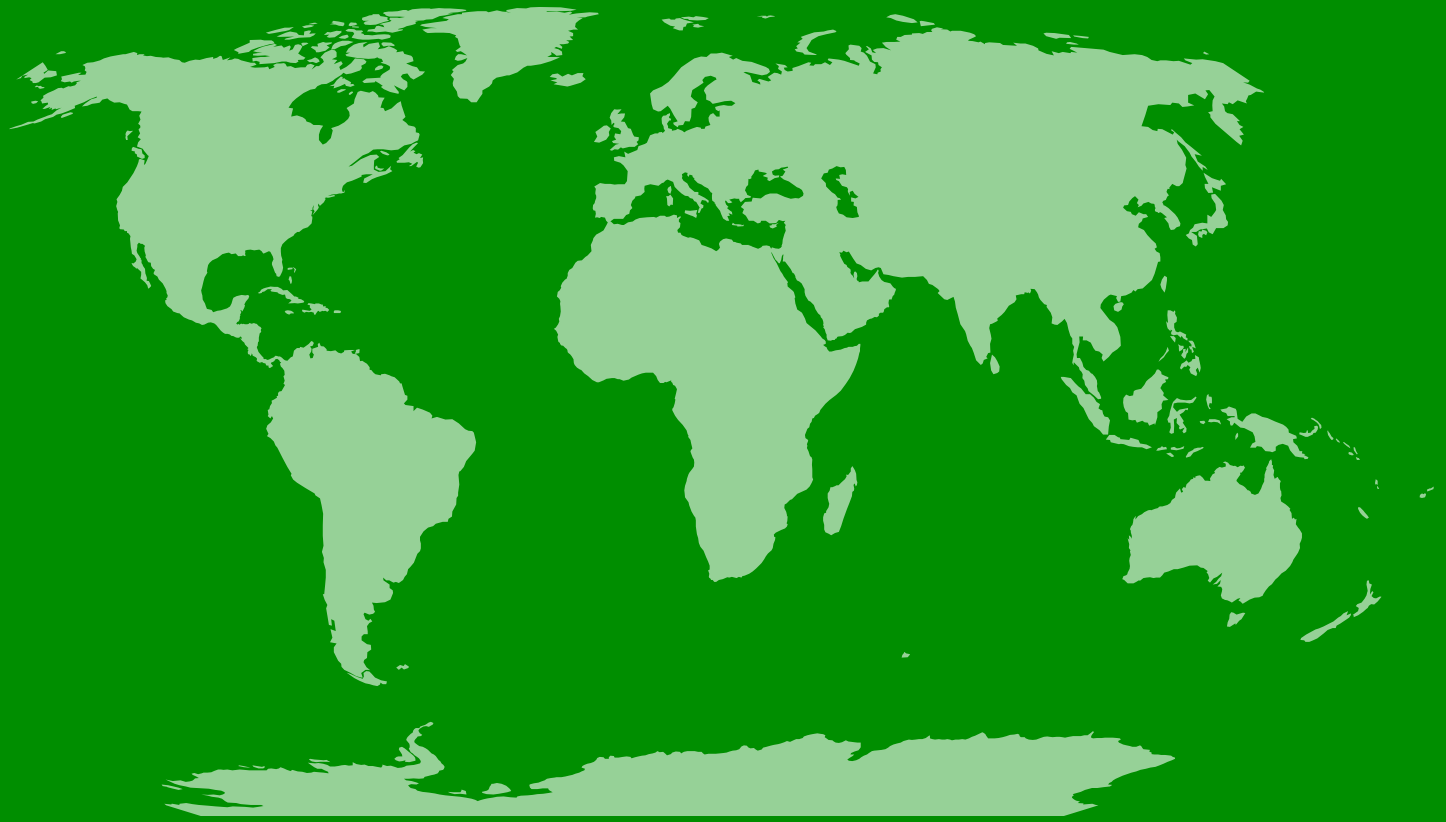
I) Lubrication System		
Lube oil pressure @ idle speed		>300 kPa
Lube oil pressure @ rated speed		460 kPa-520 kPa
Max.Permissible Oil Temperature		≤90 °C
Oil capacity		330 L
II) Oil Selection Recommendations		
No	BRAND	MODEL
1	SHELL	SHELL RIMULA R3 NG 15W-40
2	Mobil	MOBIL PEGASUS 805 SAE40

Alternator

Model	**10.5kV alternator**	**6.3kV alternator**	**400V alternator**
Type	LSA53.2 ZL14	LSA53.2 XL13	LSA52.3 UL16
Rated Power (kVA)	3000kVA 2400kWe	3000kVA 2400kWe	2750kVA 2200kWe
Power factor	0.8	0.8	0.8
Frequency (Hz)	50	50	50
Voltage (V)	10500	6600	400
Rated voltage range	+5/-5%	+5/-5%	+5/-5%
Excitation	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI	Self-excited - Brushless - Type: AREP + PMI
AVR type	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital	Leroy Somer - D550 - Digital
Speed (rpm)	1500	1500	1500
Nominal current (A)	165	262	3969
Efficiency (%)	97.3	97.5	97.5
Classes (Insulation / TR)	H/H	H/H	H/H
Winding type	P5/6	P5/6	P2/3
Ambient temperature	40 °C	40 °C	40 °C
Altitude	1000 m	1000 m	1000 m
Open type Size	6886 x 1780 x 2729		
Container type Size (mm)	Special Container: 3500 x 3500 x 13000		
Weight of open type (kg)	19300		
Weight of container type (kg)	39000		
Color	RAL9002 (white)		

Emission Limits

CH_4	≤2000 ppm
O_2	≤8.5%
N_2	75%-76%
CO_2	6.30%
NO_x	500mg/Nm3 @ 5% O2
SO_2	Dependent on gas sulfur content
CO	≤920 ppm
DUST	Background Particulate Matter



Website

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