



INDUSTRIAL RANGE

1 MAIN FEATURES

T Triphasic Diesel fuel Grupel / 6GD142TID52 Grupel / 314GB400 / G-545

Hz 50Hz 1500 r.p.m. **V** 400V **cos φ** 0,8

Standby power (STP)	440 kVA	352 kW
Prime Power (PRP)	400 kVA	320 kW
Power Continuous (COP)	- kVA	- kW

Hz 60Hz 1800 r.p.m. **V** 480V **cos φ** 0,8

Standby power (STP)	487 kVA	390 kW
Prime Power (PRP)	442 kVA	354 kW
Power Continuous (COP)	- kVA	- kW

OPEN SKID

Length (L)	4000 mm
Height (H)	2430 mm
Width (W)	1350 mm
Weight	2986 kg
Daily tank	550 L

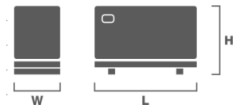


50Hz **60Hz**

Acoustic pressure level @1m	-	-
Acoustic pressure level @7m	-	-

SOUNDPROOF

Length (L)	4000 mm
Height (H)	2130 mm
Width (W)	1350 mm
Weight	3771 kg
Daily tank	550 L



50Hz **60Hz**

Acoustic pressure level @1m	79 dB(A)	82 dB(A)
Acoustic pressure level @7m	66 dB(A)	69 dB(A)

AVAILABLE VOLTAGES - 50Hz

FP (cos Ø)	Phase	Voltage	COP (kVA/kW)	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	440	- / -	369 / 295	406 / 325	630
0,8	Three-phase	415	- / -	400 / 320	440 / 352	630
0,8	Three-phase	400	- / -	400 / 320	440 / 352	630
0,8	Three-phase	380	- / -	399 / 319	440 / 352	630
0,8	Three-phase	240	- / -	400 / 320	440 / 352	1000
0,8	Three-phase	230	- / -	400 / 320	440 / 352	1000
0,8	Three-phase	220	- / -	369 / 295	406 / 325	1000
0,8	Single phase	240	- / -	240 / 192	263 / 210	1000
1	Single phase	240	- / -	192 / 192	211 / 211	800
0,8	Single phase	230	- / -	240 / 192	263 / 210	1250
1	Single phase	230	- / -	192 / 192	211 / 211	1000
0,8	Single phase	220	- / -	240 / 192	263 / 210	1250
1	Single phase	220	- / -	192 / 192	211 / 211	1000

AVAILABLE VOLTAGES - 60Hz

FP (cos Ø)	Phase	Voltage	COP (kVA/kW)	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	480	- / -	442 / 354	487 / 390	630
0,8	Three-phase	460	- / -	440 / 352	485 / 388	630
0,8	Three-phase	440	- / -	439 / 351	484 / 387	630
0,8	Three-phase	416	- / -	438 / 350	482 / 386	630
0,8	Three-phase	240	- / -	442 / 354	487 / 390	1250
0,8	Three-phase	230	- / -	440 / 352	485 / 388	1250
0,8	Three-phase	220	- / -	439 / 351	484 / 387	1250
0,8	Three-phase	208	- / -	438 / 350	482 / 386	1250
0,8	Single phase	240	- / -	263 / 210	289 / 231	1250
1	Single phase	240	- / -	262 / 262	288 / 288	1250
0,8	Single phase	230	- / -	263 / 210	289 / 231	1250
1	Single phase	230	- / -	262 / 262	288 / 288	1250
0,8	Single phase	220	- / -	263 / 210	289 / 231	1250
1	Single phase	220	- / -	262 / 262	288 / 288	1250


2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	-	600	-	-	-
Exhaust gas flow (m³/min)	-	-	50,3	-	-	-
Evacuated Heat (kW)	-	-	-	-	-	-
Maximum back pressure (kPa)	6					
Exhaust silencer attenuation (dB)	30					
Output Diameter (mm)	114					

VENTILATION SYSTEMS	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Combustion air flow (m³/min)	-	-	19,5	-	-	-
Cooling airflow (m³/min)	-			-		
Maximum load losses (Pa)	-			-		
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	-	-	-	-	-	-
Alternator (kW)	22,4	22,4	24,6	23,4	23,4	25,7

3 ENGINE SPECIFICATIONS


GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	6GD142TID52	
Emissions	Not satisfy 97/68/EC	
Performance grade	G2	
Operating method	Four stroke	
Fuel type	Diesel fuel	
Refrigeration system	Water/antifreeze Closed Circuit	
Aspiration system	Turbocharged	
Injection system	Direct	
No. and Cylinder arrangement	6 In-Line	
Displacement (L)	14,16	
Cylinder bore (mm)	135	
Cylinder stroke (mm)	165	
Compression Ratio	15,55:1	
Regulation	Electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	8,3	9,9
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	357	391,4
Gross power STP (kWm)	392	430
Fan power (kWm)	13	13
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	344	378,4
Net Power STP (kWm)	379	416,9
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	1864	1782
BMEP STP (kPa)	2051	1963



CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	90,3	211,4	103,5	209
	100%	81,2	209,2	92,8	206,5
PRP	75%	59,8	205,4	67,7	200,9
	50%	41,1	211,7	47,9	213,2
COP	100%	-	-	-	-
	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption		-			
REFERENCE CONDITIONS					
Temperature (°C)		25			
Atmospheric pressure (kPa)		100			
CAPACITY					
Coolant (L)		35,5			
Oil (L)		41			
STARTING SYSTEM					
Voltage (V)		24			
Power (kW)		7.5			
Battery (Ah)		155			

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	314GB400
Phases No.	Triphasic
Protection	IP23
Insulation	H
Temperature Rise	H
50Hz R.F.I. telephone interference	THF<2%
60Hz R.F.I. telephone interference	TIF<50
R.F.I. Suppression	BS EN 61000-6-2 /6-4, VDE 0875G, VDE 0875N.
Coupling	Semi-Flexible
Support	Single bearing



Wave form distortion with no load	< 1,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	12
Excitation (standard / option)	Self-excited / PMG
AVR Model (standard / option)	SX440/ MX341
Voltage Regulation (standard / option)	± 1,0%/ ± 0,5%



INDUSTRIAL RANGE

RATED POWER - 50Hz								RATED POWER - 60Hz							
FP (cos Ø)	Phase	Voltage (V)	Power		Efficiency			FP (cos Ø)	Phase	Voltage (V)	Power		Efficiency		
			PRP/STP (kVA)	PRP/STP (%)	PRP/STP (%)	Xd	X'd				X''d	PRP/STP (kVA)	PRP/STP (%)	PRP/STP (%)	Xd
0,8	Three-phase	440	369 / 406	93,5 / 93,5	2,160	0,130	0,100	0,8	Three-phase	480	450 / 495	93,5 / 93,5	2,820	0,160	0,110
0,8	Three-phase	415	400 / 440	93,3 / 93,3	2,160	0,130	0,100	0,8	Three-phase	460	450 / 495	93,0 / 93,0	2,820	0,160	0,110
0,8	Three-phase	400	400 / 440	93,0 / 93,0	2,160	0,130	0,100	0,8	Three-phase	440	450 / 495	92,8 / 92,8	2,820	0,160	0,110
0,8	Three-phase	380	400 / 440	92,8 / 92,8	2,160	0,130	0,100	0,8	Three-phase	416	450 / 495	92,5 / 92,5	2,820	0,160	0,110
0,8	Three-phase	240	400 / 440	93,3 / 93,3	2,160	0,130	0,100	0,8	Three-phase	240	450 / 495	93,5 / 93,5	2,820	0,160	0,110
0,8	Three-phase	230	400 / 440	93,0 / 93,0	2,160	0,130	0,100	0,8	Three-phase	230	450 / 495	93,0 / 93,0	2,820	0,160	0,110
0,8	Three-phase	220	369 / 406	93,5 / 93,5	2,160	0,130	0,100	0,8	Three-phase	220	450 / 495	92,8 / 92,8	2,820	0,160	0,110
0,8	Single phase	240	240 / 263	94,2 / 94,2	2,160	0,130	0,100	0,8	Three-phase	208	450 / 495	92,5 / 92,5	2,820	0,160	0,110
1	Single phase	240	240 / 264	94,2 / 94,2	2,160	0,130	0,100	0,8	Single phase	240	263 / 289	94,2 / 94,2	2,820	0,160	0,110
0,8	Single phase	230	240 / 263	94,2 / 94,2	2,160	0,130	0,100	1	Single phase	240	262 / 288	94,2 / 94,2	2,820	0,160	0,110
1	Single phase	230	240 / 264	94,2 / 94,2	2,160	0,130	0,100	0,8	Single phase	230	263 / 289	94,2 / 94,2	2,820	0,160	0,110
0,8	Single phase	220	240 / 263	94,2 / 94,2	2,160	0,130	0,100	1	Single phase	230	262 / 288	94,2 / 94,2	2,820	0,160	0,110
1	Single phase	220	240 / 264	94,2 / 94,2	2,160	0,130	0,100	0,8	Single phase	220	263 / 289	94,2 / 94,2	2,820	0,160	0,110
								1	Single phase	220	262 / 288	94,2 / 94,2	2,820	0,160	0,110

5

CONTROL PANEL



GENSET	GRUPEL G-545	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity	•	•
Frequency	•	•
RMS values	•	•
Generator phase sequence	•	•
Generator earth current [a]	•	•
No. of registers events	400	250
Real time clock	•	•
PIN protection	•	•
kWh, kVAr, kVAh, kVAh, cos Ø	•	•
Synchroscope (m)	o	o
Nº of available outputs [b]	4	6
Engine run hours	•	•
Indication of alarms on LCD	•	•
Total no. of LED indicators	15	12
No. of LED alarms	4	4
Sound signalling alarms	-	o
Scheduler	•	•
Fuel Level	•	•

Electrical network	GRUPEL G-545	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity [a]	o	o
Frequency	•	•
kVA, kW, cos Ø (a)	o	o
Inversion control between main-group	•	•
Protections and Alarms	GRUPEL G-545	OPTIONAL
High / low battery voltage	A	o
Failure in Battery Charge Alternator	A	o
Failure to stop	A/S	A/S
Failure to start	A/S	A/S
Low fuel level	A/S	A/S
Overload	A/S	A/S
Earth leakage	A/S	A/S
Asymmetry between phases	A/S	A/S
Maintenance	A/S	A/S
High / Low generator frequency	A/S	A/S
Engine overspeed	A/S	A/S
Engine underspeed	A/S	A/S
Generator overvoltage	A/S	A/S
Generator undervoltage	A/S	A/S
ECU Alert (if applicable)	A/S	A/S
Low oil pressure	A/S	A/S
Low level of radiator water [f]	A/S	A/S
Engine high temperature	A/S	A/S
Fuel leakage/ theft	A	o

6 CONTROL PANEL

Engine	GRUPEL G-545	OPTIONAL
Engine Speed	•	•
Low oil pressure protection	•	•
Oil pressure reading [c]	o	o
High temperature engine protection	•	•
Engine temperature reading [c]	o	o
Engine battery voltage	•	•
Intensity of the engine battery [d]	o	o
Fuel Consumption [e]	•	•
Low level of radiator water [f]	o	o
Engine maintenance scheduled	•	•
Communication	GRUPEL G-545	OPTIONAL
USB female type B plug (Max. 6m) [g]	•	•
USB female type A plug (n)	o	o
RS232 port (Max. 15m) (n)	o	o
RS485 port (Max. 1,2Km) [h]	•	•
Ethernet port RJ45 [i]	o	o
GSM and/or GPS [j]	o	o
ModBus RTU protocol [h]	•	•
ModBus TCP protocol [i]	o	o
SNMP protocol [l]	o	o
CAN port (Max. 40m)	•	•
MSC port (Max. 240m) (m)	o	o
PLC functionality	•	•

Applications	GRUPEL G-545	OPTIONAL
Automatic or manual starting	•	•
Remote start by NO dry contact	•	•
Automatic by mains failure	•	•
Alternating with timesharing	•	•
Multi-generators synchronization and load sharing (Max. 32 generators) (m)	o	o
Generator-Main in synchronism and load sharing (1 generator and 1 main) (m)	o	o
Optional expansions	GRUPEL G-545	OPTIONAL
DSE2130 (8 inputs dig.) IG-IOM (8 in/outputs dig. + 4 inputs anal.) G-08 (8 inputs dig.)	•	•
DSE2157 I-RB8 G-06 (8 relay outputs)	•	•
DSE890 IL-NT-GPRS G-GSM (GSM and/or GPS)	•	•
DSE891 IB-LITE G-ETH (ethernet module)	•	•
DSE892 IB-LITE - (ethernet module according SNMP protocol)	-	o
DSE2548 IGL-RA15 - (expansion with 8 additional LEDs)	-	o
DSE2510 / 20 (mirror controller, maximum distance 1km)	-	o
Standards		
Working temperature		-30 -> 70°C
Protection index (when assembled with sealing gasket)		IP65
Degree of humidity (during 48hr)		93% / 40°C

Legend

•	Available
o	Optional
-	Not available
A	Warning Alarm
S	Stop alarm
[a]	Need additional CT
[b]	No. of outputs available for standard configuration. The outputs do not include relays and additional terminal connections.
[c]	If the information is not provided by the engine-ECU, you need an additional sensor

[d]	Needs additional ammeter
[e]	If information provided by the engine ECU
[f]	Required additional sensor
[g]	Requires the addition of the IL-NT-S-USB module
[h]	Requires the addition of the IL-NT-RS232-485 module
[i]	DeepSea: Requires the addition of the DSE891 module/ ComAp: Requires the addition of the IB-LITE module
[j]	DeepSea: Requires the addition of the DSE890 module/ ComAp: Requires the addition of the IL-NT-GPRS module
[l]	DeepSea: Requires the addition of the DSE892 module/ ComAp: Requires the addition of the IB-LITE module

Indicative weights and dimensions. Reference ambient conditions: 100kPa, 25°C, 30% relative humidity and fuel temperature below 40°C. Power in accordance with ISO 8528: Continuous power (PRP): Maximum available power to feed a variable electrical load for an unlimited period. The average of load factor in 24h of operation, shall not exceed 70% of the PRP. Admits 10% of overload during the maximum period of 1h every 12h of operation. The operation under overload shall not exceed 25h/year. Emergency Power (STP): Maximum available power to feed variable electrical load for a maximum period of 200h/year. The average of load factor in 24h of operation shall not exceed 70% of the STP. No overload. These specifications are subject to change without notice.

Distribuidor