



INDUSTRIAL RANGE

1 MAIN FEATURES

T Triphasic
 Diesel fuel
 Perkins / 1106A-70TAG2
 Grupel / 274GB200
 / G-545

Hz 50Hz
 1500 r.p.m.
V 400V
cos φ 0,8


Standby power (STP)	168 kVA	134 kW
Prime Power (PRP)	153 kVA	122 kW
Power Continuous (COP)	- kVA	- kW

Hz 60Hz
 1800 r.p.m.
V 480V
cos φ 0,8

Standby power (STP)	187 kVA	150 kW
Prime Power (PRP)	169 kVA	135 kW
Power Continuous (COP)	- kVA	- kW

OPEN SKID

Length (L)	3200 mm
Height (H)	1745 mm
Width (W)	1100 mm
Weight	1658 kg
Daily tank	350 L

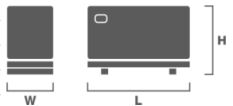


50Hz 60Hz

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

SOUNDPROOF

Length (L)	3200 mm
Height (H)	1745 mm
Width (W)	1100 mm
Weight	2208 kg
Daily tank	350 L



50Hz 60Hz

Acoustic pressure level @1m	75 dB(A)	77 dB(A)
Acoustic pressure level @7m	62 dB(A)	64 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	- / -	154 / 123	169 / 135	200
0,8	Three-phase	415	- / -	153 / 123	169 / 135	250
0,8	Three-phase	400	- / -	153 / 122	168 / 134	250
0,8	Three-phase	380	- / -	152 / 122	168 / 134	250
0,8	Three-phase	240	- / -	153 / 123	169 / 135	400
0,8	Three-phase	230	- / -	153 / 122	168 / 134	400
0,8	Three-phase	220	- / -	154 / 123	169 / 135	400
0,8	Single phase	240	- / -	120 / 96	131 / 105	630
1	Single phase	240	- / -	96 / 96	106 / 106	400
0,8	Single phase	230	- / -	120 / 96	131 / 105	630
1	Single phase	230	- / -	96 / 96	106 / 106	630
0,8	Single phase	220	- / -	120 / 96	131 / 105	630
1	Single phase	220	- / -	96 / 96	106 / 106	630

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	- / -	169 / 135	187 / 150	250
0,8	Three-phase	460	- / -	168 / 135	186 / 149	250
0,8	Three-phase	440	- / -	168 / 134	186 / 149	250
0,8	Three-phase	416	- / -	168 / 134	185 / 148	250
0,8	Three-phase	240	- / -	169 / 135	187 / 150	630
0,8	Three-phase	230	- / -	168 / 135	186 / 149	630
0,8	Three-phase	220	- / -	168 / 134	186 / 149	630
0,8	Three-phase	208	- / -	168 / 134	185 / 148	630
0,8	Single phase	240	- / -	131 / 105	144 / 115	630
1	Single phase	240	- / -	130 / 130	143 / 143	630
0,8	Single phase	230	- / -	131 / 105	144 / 115	630
1	Single phase	230	- / -	130 / 130	143 / 143	630
0,8	Single phase	220	- / -	131 / 105	144 / 115	630
1	Single phase	220	- / -	130 / 130	143 / 143	630


2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	484	484	-	407	407
Exhaust gas flow (m³/min)	-	23,78	25,53	-	30,53	32,29
Evacuated Heat (kW)	-	96,6	105,6	-	110,7	120,6
Maximum back pressure (kPa)	6					
Exhaust silencer attenuation (dB)	30					
Output Diameter (mm)	90					

VENTILATION SYSTEMS	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Combustion air flow (m³/min)	-	10,2	10,67	-	14,41	14,97
Cooling airflow (m³/min)	222			282		
Maximum load losses (Pa)	200					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	11	11	12,2	11,3	11,3	12,3
Alternator (kW)	10,7	10,7	11,8	12,3	12,3	13,5

3 ENGINE SPECIFICATIONS


GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	1106A-70TAG2	
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)	7,01	
Cylinder bore (mm)	105	
Cylinder stroke (mm)	135	
Compression Ratio	18,2:1	
Regulation	Mechanic / optional electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	6,8	8,1
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	136	152,6
Gross power STP (kWm)	149,1	167,9
Fan power (kWm)	5	8
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	131	144,6
Net Power STP (kWm)	144,1	159,9
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	1552,1	1477,9
BMEP STP (kPa)	1701,6	1633,9



CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	35,2	197,6	40,7	204,5
	75%	32,3	198,6	37,5	206,9
	50%	24,2	198,8	28,8	212,1
PRP	100%	16,5	203,2	18,5	203,6
	75%	-	-	-	-
	50%	-	-	-	-
COP	100%	-	-	-	-
	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption	< 0,1% of fuel consumption				
REFERENCE CONDITIONS					
Temperature (°C)	25				
Atmospheric pressure (kPa)	100				
CAPACITY					
Coolant (L)	21				
Oil (L)	18				
STARTING SYSTEM					
Voltage (V)	12				
Power (kW)	4,2				
Battery (Ah)	155				

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	274GB200
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)	SX460/ 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	190 / 210	93,8 / 93,8	1,910	0,160	0,110	0,8	Three-phase	480	240 / 264	93,6 / 93,6	2,390	0,190	0,130
0,8	Three-phase	415	200 / 220	93,6 / 93,6	1,910	0,160	0,110	0,8	Three-phase	460	240 / 264	93,2 / 93,2	2,390	0,190	0,130
0,8	Three-phase	400	200 / 220	93,3 / 93,3	1,910	0,160	0,110	0,8	Three-phase	440	240 / 264	92,9 / 92,9	2,390	0,190	0,130
0,8	Three-phase	380	200 / 220	93,0 / 93,0	1,910	0,160	0,110	0,8	Three-phase	416	240 / 264	92,7 / 92,7	2,390	0,190	0,130
0,8	Three-phase	240	200 / 220	93,6 / 93,6	1,910	0,160	0,110	0,8	Three-phase	240	240 / 264	93,6 / 93,6	2,390	0,190	0,130
0,8	Three-phase	230	200 / 220	93,3 / 93,3	1,910	0,160	0,110	0,8	Three-phase	230	240 / 264	93,2 / 93,2	2,390	0,190	0,130
0,8	Three-phase	220	190 / 210	93,8 / 93,8	1,910	0,160	0,110	0,8	Three-phase	220	240 / 264	92,9 / 92,9	2,390	0,190	0,130
0,8	Single phase	240	120 / 131	92,9 / 92,9	1,910	0,160	0,110	0,8	Three-phase	208	240 / 264	92,7 / 92,7	2,390	0,190	0,130
1	Single phase	240	120 / 132	92,9 / 92,9	1,910	0,160	0,110	0,8	Single phase	240	131 / 144	92,9 / 92,9	2,390	0,190	0,130
0,8	Single phase	230	120 / 131	92,9 / 92,9	1,910	0,160	0,110	1	Single phase	240	130 / 143	92,9 / 92,9	2,390	0,190	0,130
1	Single phase	230	120 / 132	92,9 / 92,9	1,910	0,160	0,110	0,8	Single phase	230	131 / 144	92,9 / 92,9	2,390	0,190	0,130
0,8	Single phase	220	120 / 131	92,9 / 92,9	1,910	0,160	0,110	1	Single phase	230	130 / 143	92,9 / 92,9	2,390	0,190	0,130
1	Single phase	220	120 / 132	92,9 / 92,9	1,910	0,160	0,110	0,8	Single phase	220	131 / 144	92,9 / 92,9	2,390	0,190	0,130
								1	Single phase	220	130 / 143	92,9 / 92,9	2,390	0,190	0,130

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