



INDUSTRIAL RANGE

1 MAIN FEATURES


T Triphasic
 Diesel fuel
 Volvo / TAD1344GE
 Leroy somer / TAL046H
 / G-545

Hz 50Hz	1500 r.p.m.	V 400V	cos φ 0,8
Standby power (STP)	402 kVA	321 kW	
Prime Power (PRP)	365 kVA	292 kW	
Power Continuous (COP)	- kVA	- kW	

Hz 60Hz	1800 r.p.m.	V 480V	cos φ 0,8
Standby power (STP)	502 kVA	401 kW	
Prime Power (PRP)	456 kVA	365 kW	
Power Continuous (COP)	- kVA	- kW	

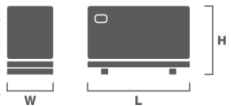
OPEN SKID

Length (L)	3800 mm
Height (H)	1920 mm
Width (W)	1250 mm
Weight	3078 kg
Daily tank	550 L



SOUNDPROOF

Length (L)	3800 mm
Height (H)	1920 mm
Width (W)	1250 mm
Weight	3863 kg
Daily tank	550 L



	50Hz	60Hz
Acoustic pressure level @ 1m	-	-
Acoustic pressure level @ 7m	-	-

	50Hz	60Hz
Acoustic pressure level @ 1m	82 dB(A)	84 dB(A)
Acoustic pressure level @ 7m	72 dB(A)	74 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	- / -	347 / 278	382 / 305	630
1	Three-phase	440	- / -	278 / 278	305 / 305	400
0,8	Three-phase	415	- / -	365 / 292	402 / 321	630
1	Three-phase	415	- / -	292 / 292	321 / 321	630
0,8	Three-phase	400	- / -	365 / 292	402 / 321	630
1	Three-phase	400	- / -	292 / 292	321 / 321	630
0,8	Three-phase	380	- / -	350 / 280	385 / 308	630
1	Three-phase	380	- / -	280 / 280	308 / 308	630
0,8	Three-phase	240	- / -	365 / 292	402 / 321	1000
1	Three-phase	240	- / -	292 / 292	321 / 321	800
0,8	Three-phase	230	- / -	365 / 292	402 / 321	1000
1	Three-phase	230	- / -	292 / 292	321 / 321	800
0,8	Three-phase	220	- / -	347 / 278	382 / 305	1000
1	Three-phase	220	- / -	278 / 278	305 / 305	800
0,8	Single phase	230	- / -	210 / 168	231 / 185	1000
1	Single phase	230	- / -	168 / 168	185 / 185	800
0,8	Single phase	230	- / -	219 / 175	241 / 193	1000
1	Single phase	230	- / -	175 / 175	193 / 193	800
0,8	Single phase	220	- / -	210 / 168	231 / 185	1000
1	Single phase	220	- / -	168 / 168	185 / 185	800

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	- / -	456 / 365	502 / 401	630
1	Three-phase	480	- / -	365 / 365	401 / 401	630
0,8	Three-phase	440	- / -	400 / 320	440 / 352	630
1	Three-phase	440	- / -	320 / 320	352 / 352	630
0,8	Three-phase	416	- / -	375 / 300	413 / 330	630
1	Three-phase	416	- / -	300 / 300	330 / 330	630
0,8	Three-phase	380	- / -	345 / 276	380 / 304	630
1	Three-phase	380	- / -	276 / 276	304 / 304	630
0,8	Three-phase	240	- / -	456 / 365	502 / 401	1250
1	Three-phase	240	- / -	365 / 365	401 / 401	1000
0,8	Three-phase	220	- / -	400 / 320	440 / 352	1250
1	Three-phase	220	- / -	320 / 320	352 / 352	1000
0,8	Three-phase	208	- / -	375 / 300	413 / 330	1250
1	Three-phase	208	- / -	300 / 300	330 / 330	1000
0,8	Single phase	240	- / -	231 / 185	254 / 203	1000
1	Single phase	240	- / -	185 / 185	203 / 203	800
0,8	Single phase	240	- / -	231 / 185	254 / 203	1000
1	Single phase	240	- / -	185 / 185	203 / 203	800
0,8	Single phase	230	- / -	231 / 185	254 / 203	1000
1	Single phase	230	- / -	185 / 185	203 / 203	800


2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	440	465	-	440	490
Exhaust gas flow (m³/min)	-	63,5	67,5	-	77	82
Evacuated Heat (kW)	-	243	266	-	280	324
Maximum back pressure (kPa)	9					
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)	-	27	28	-	33	33
Cooling airflow (m³/min)	348			360		
Maximum load losses (Pa)	246					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	13	13	15	22	22	23
Alternator (kW)	18,8	18,8	21,6	22,5	22,5	25,7
Alternator (kW)	12,6	12,6	14,3	15,7	15,7	17,7

3 ENGINE SPECIFICATIONS


GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	TAD1344GE	
Emissions	FASE II	
Performance grade	G3	
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)	12,78	
Cylinder bore (mm)	131	
Cylinder stroke (mm)	158	
Compression Ratio	18,1:1	
Regulation	Electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	7,9	9,5
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	364	410
Gross power STP (kWm)	399	449
Fan power (kWm)	10	18
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	354	392
Net Power STP (kWm)	389	431
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	2300	2100
BMEP STP (kPa)	2500	2300



CONSUMPTION	LOAD	50Hz		60Hz	
		lt/h	g/kWh	lt/h	g/kWh
STP	100%	91,5	195	106,7	202
	75%	83,1	194	97	201
	50%	63,3	197	72,4	200
PRP	100%	42,8	200	49,4	205
	75%	-	-	-	-
	50%	-	-	-	-
COP	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption	< 0,05% of fuel consumption				
REFERENCE CONDITIONS					
Temperature (°C)	25				
Atmospheric pressure (kPa)	100				
CAPACITY					
Coolant (L)	44				
Oil (L)	36				
STARTING SYSTEM					
Voltage (V)	24				
Power (kW)	7				
Battery (Ah)	155				

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL046H
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	CEM 2014/30/UE
Coupling	Semi-Flexible



Wave form distortion with no load	< 3,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	6
Excitation (standard / option)	SHUNT / AREP
AVR Model (standard / option)	R150 / R180



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	347 / 382	93,6 / 93,4	2,380	0,113	0,091	0,8	Three-phase	480	456 / 502	93,8 / 93,6	3,160	0,151	0,120
1	Three-phase	440	278 / 305	95,6 / 95,6	2,380	0,113	0,091	1	Three-phase	480	365 / 401	95,7 / 95,6	3,160	0,151	0,120
0,8	Three-phase	415	365 / 402	93,6 / 93,4	2,820	0,134	0,107	0,8	Three-phase	440	400 / 440	93,8 / 93,6	3,300	0,157	0,126
1	Three-phase	415	292 / 321	95,7 / 95,6	2,820	0,134	0,107	1	Three-phase	440	320 / 352	95,7 / 95,5	3,300	0,157	0,126
0,8	Three-phase	400	365 / 402	93,6 / 93,3	3,030	0,145	0,116	0,8	Three-phase	416	375 / 413	93,7 / 93,4	3,460	0,165	0,132
1	Three-phase	400	292 / 321	95,7 / 95,5	3,030	0,145	0,116	1	Three-phase	416	300 / 330	95,6 / 95,4	3,460	0,165	0,132
0,8	Three-phase	380	350 / 385	93,5 / 93,2	3,220	0,154	0,123	0,8	Three-phase	380	345 / 380	93,3 / 93,0	3,810	0,182	0,145
1	Three-phase	380	280 / 308	95,6 / 95,5	3,220	0,154	0,123	1	Three-phase	380	276 / 304	95,3 / 95,2	3,810	0,182	0,145
0,8	Three-phase	240	365 / 402	93,6 / 93,4	2,820	0,134	0,107	0,8	Three-phase	240	456 / 502	93,8 / 93,6	3,160	0,151	0,120
1	Three-phase	240	292 / 321	95,7 / 95,6	2,820	0,134	0,107	1	Three-phase	240	365 / 401	95,7 / 95,6	3,160	0,151	0,120
0,8	Three-phase	230	365 / 402	93,6 / 93,3	3,030	0,145	0,116	0,8	Three-phase	220	400 / 440	93,8 / 93,6	3,300	0,157	0,126
1	Three-phase	230	292 / 321	95,7 / 95,5	3,030	0,145	0,116	1	Three-phase	220	320 / 352	95,7 / 95,5	3,300	0,157	0,126
0,8	Three-phase	220	347 / 382	93,6 / 93,4	2,380	0,113	0,091	0,8	Three-phase	208	375 / 413	93,7 / 93,4	3,460	0,165	0,132
1	Three-phase	220	278 / 305	95,6 / 95,6	2,380	0,113	0,091	1	Three-phase	208	300 / 330	95,6 / 95,4	3,460	0,165	0,132
0,8	Single phase	230	210 / 231	86,9 / 86,2	1,410	0,170	0,140	0,8	Single phase	240	231 / 254	85,6 / 84,8	1,970	0,200	0,160
1	Single phase	230	168 / 185	90,9 / 90,5	1,410	0,170	0,140	1	Single phase	240	185 / 203	89,7 / 89,2	1,970	0,200	0,160
0,8	Single phase	230	219 / 241	90,9 / 90,3	5,510	0,263	0,210	0,8	Single phase	240	231 / 254	90,5 / 89,9	6,400	0,305	0,244
1	Single phase	230	175 / 193	93,8 / 93,4	5,510	0,263	0,210	1	Single phase	240	185 / 203	93,3 / 93,0	6,400	0,305	0,244
0,8	Single phase	220	210 / 231	86,9 / 86,2	1,540	0,180	0,150	0,8	Single phase	230	231 / 254	85,6 / 84,8	2,150	0,220	0,180
1	Single phase	220	168 / 185	90,9 / 90,5	1,540	0,180	0,150	1	Single phase	230	185 / 203	89,7 / 89,2	2,150	0,220	0,180

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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)	0	0
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	-	0
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