



## INDUSTRIAL RANGE

### 1 MAIN FEATURES

T Triphasic    
 Diesel fuel    
 Volvo / TAD731GE    
 Leroy somer / TAL044J    
 / G-545

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


Standby power (STP)	165 kVA	132 kW
Prime Power (PRP)	150 kVA	120 kW
Power Continuous (COP)	- kVA	- kW

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

Standby power (STP)	177 kVA	141 kW
Prime Power (PRP)	161 kVA	129 kW
Power Continuous (COP)	- kVA	- kW

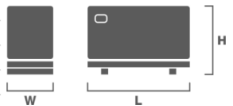
#### OPEN SKID

Length (L)	3100 mm
Height (H)	1980 mm
Width (W)	1153 mm
Weight	1513 kg
Daily tank	350 L



#### SOUNDPROOF

Length (L)	3100 mm
Height (H)	1780 mm
Width (W)	1153 mm
Weight	2063 kg
Daily tank	350 L



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

	50Hz	60Hz
Acoustic pressure level @1m	76 dB(A)	79 dB(A)
Acoustic pressure level @7m	65 dB(A)	68 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	- / -	135 / 108	149 / 119	200
1	Three-phase	440	- / -	108 / 108	119 / 119	160
0,8	Three-phase	415	- / -	150 / 120	165 / 132	250
1	Three-phase	415	- / -	120 / 120	132 / 132	200
0,8	Three-phase	400	- / -	150 / 120	165 / 132	250
1	Three-phase	400	- / -	120 / 120	132 / 132	200
0,8	Three-phase	380	- / -	150 / 120	165 / 132	250
1	Three-phase	380	- / -	120 / 120	132 / 132	200
0,8	Three-phase	240	- / -	150 / 120	165 / 132	400
1	Three-phase	240	- / -	120 / 120	132 / 132	400
0,8	Three-phase	230	- / -	150 / 120	165 / 132	400
1	Three-phase	230	- / -	120 / 120	132 / 132	400
0,8	Three-phase	220	- / -	135 / 108	149 / 119	400
1	Three-phase	220	- / -	108 / 108	119 / 119	400
0,8	Single phase	230	- / -	80 / 64	88 / 70	400
1	Single phase	230	- / -	64 / 64	70 / 70	400
0,8	Single phase	230	- / -	80 / 64	88 / 70	400
1	Single phase	230	- / -	64 / 64	70 / 70	400
0,8	Single phase	220	- / -	80 / 64	88 / 70	400
1	Single phase	220	- / -	64 / 64	70 / 70	400

#### 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	- / -	161 / 129	177 / 141	200
1	Three-phase	480	- / -	132 / 132	145 / 145	160
0,8	Three-phase	440	- / -	161 / 129	177 / 142	250
1	Three-phase	440	- / -	132 / 132	145 / 145	200
0,8	Three-phase	416	- / -	161 / 129	177 / 141	250
1	Three-phase	416	- / -	130 / 130	143 / 143	200
0,8	Three-phase	380	- / -	148 / 118	163 / 130	250
1	Three-phase	380	- / -	118 / 118	130 / 130	200
0,8	Three-phase	240	- / -	161 / 129	177 / 141	400
1	Three-phase	240	- / -	132 / 132	145 / 145	400
0,8	Three-phase	220	- / -	161 / 129	177 / 142	630
1	Three-phase	220	- / -	132 / 132	145 / 145	400
0,8	Three-phase	208	- / -	161 / 129	177 / 141	630
1	Three-phase	208	- / -	130 / 130	143 / 143	400
0,8	Single phase	240	- / -	95 / 76	105 / 84	400
1	Single phase	240	- / -	76 / 76	84 / 84	400
0,8	Single phase	240	- / -	95 / 76	105 / 84	400
1	Single phase	240	- / -	76 / 76	84 / 84	400
0,8	Single phase	230	- / -	95 / 76	105 / 84	630
1	Single phase	230	- / -	76 / 76	84 / 84	400


## 2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	520	540	-	471	480
Exhaust gas flow (m³/min)	-	27,5	30,2	-	31,3	34,2
Evacuated Heat (kW)	-	117	131	-	121	135
Maximum back pressure (kPa)	5					
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)	-	9,9	10,7	-	12,3	13,3
Cooling airflow (m³/min)	126			168		
Maximum load losses (Pa)	150					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	14	14	15	15	15	16
Alternator (kW)	9,2	9,2	10,6	10,9	10,9	12,5
Alternator (kW)	6,0	6,0	6,8	7,4	7,4	8,3

## 3 ENGINE SPECIFICATIONS


GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	TAD731GE	
Emissions	FASE II	
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)	7,15	
Cylinder bore (mm)	108	
Cylinder stroke (mm)	130	
Compression Ratio	18:1	
Regulation	Mechanic / optional electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	6,5	7,8
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	139	149
Gross power STP (kWm)	153	163
Fan power (kWm)	5	10
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	134	139
Net Power STP (kWm)	148	153
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	1600	1400
BMEP STP (kPa)	1700	1500



CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	38,7	215	41,6	217
	100%	35,2	215	37,8	217
	75%	26,5	216	28,7	220
PRP	50%	18,3	224	20,1	231
	100%	-	-	-	-
	75%	-	-	-	-
COP	50%	-	-	-	-
	50%	-	-	-	-
Oil consumption	< 0,24% of fuel consumption				
REFERENCE CONDITIONS					
Temperature (°C)	25				
Atmospheric pressure (kPa)	100				
CAPACITY					
Coolant (L)	23,8				
Oil (L)	20				
STARTING SYSTEM					
Voltage (V)	12				
Power (kW)	3				
Battery (Ah)	155				

## 4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL044J
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)	R120 / 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	135 / 149	91,8 / 91,6	2,670	0,126	0,075	0,8	Three-phase	480	188 / 207	92,7 / 92,4	3,750	0,177	0,106
1	Three-phase	440	108 / 119	94,7 / 94,7	2,670	0,126	0,075	1	Three-phase	480	150 / 165	95,1 / 95,0	3,750	0,177	0,106
0,8	Three-phase	415	150 / 165	92,2 / 91,8	3,320	0,157	0,094	0,8	Three-phase	440	172 / 189	92,9 / 92,6	4,080	0,193	0,116
1	Three-phase	415	120 / 132	95,0 / 94,9	3,320	0,157	0,094	1	Three-phase	440	138 / 151	95,1 / 95,0	4,080	0,193	0,116
0,8	Three-phase	400	150 / 165	92,4 / 92,0	3,590	0,170	0,102	0,8	Three-phase	416	163 / 179	92,8 / 92,4	4,330	0,205	0,123
1	Three-phase	400	120 / 132	95,0 / 94,9	3,590	0,170	0,102	1	Three-phase	416	130 / 143	95,0 / 94,8	4,330	0,205	0,123
0,8	Three-phase	380	150 / 165	92,3 / 91,9	3,980	0,188	0,113	0,8	Three-phase	380	148 / 163	92,5 / 92,1	4,710	0,223	0,133
1	Three-phase	380	120 / 132	95,0 / 94,7	3,980	0,188	0,113	1	Three-phase	380	118 / 130	94,8 / 94,6	4,710	0,223	0,133
0,8	Three-phase	240	150 / 165	92,2 / 91,8	3,320	0,157	0,094	0,8	Three-phase	240	188 / 207	92,7 / 92,4	3,750	0,177	0,106
1	Three-phase	240	120 / 132	95,0 / 94,9	3,320	0,157	0,094	1	Three-phase	240	150 / 165	95,1 / 95,0	3,750	0,177	0,106
0,8	Three-phase	230	150 / 165	92,4 / 92,0	3,590	0,170	0,102	0,8	Three-phase	220	172 / 189	92,9 / 92,6	4,080	0,193	0,116
1	Three-phase	230	120 / 132	95,0 / 94,9	3,590	0,170	0,102	1	Three-phase	220	138 / 151	95,1 / 95,0	4,080	0,193	0,116
0,8	Three-phase	220	135 / 149	91,8 / 91,6	2,670	0,126	0,075	0,8	Three-phase	208	163 / 179	92,8 / 92,4	4,330	0,205	0,123
1	Three-phase	220	108 / 119	94,7 / 94,7	2,670	0,126	0,075	1	Three-phase	208	130 / 143	95,0 / 94,8	4,330	0,205	0,123
0,8	Single phase	230	80 / 88	89,0 / 88,5	1,420	0,180	0,110	0,8	Single phase	240	95 / 105	89,7 / 89,2	2,290	0,240	0,140
1	Single phase	230	64 / 70	92,9 / 92,8	1,420	0,180	0,110	1	Single phase	240	76 / 84	92,8 / 92,6	2,290	0,240	0,140
0,8	Single phase	230	80 / 88	86,6 / 85,8	1,990	0,183	0,109	0,8	Single phase	240	95 / 105	86,1 / 85,4	2,600	0,239	0,143
1	Single phase	230	64 / 70	91,2 / 90,9	1,990	0,183	0,109	1	Single phase	240	76 / 84	90,3 / 89,9	2,600	0,239	0,143
0,8	Single phase	220	80 / 88	89,0 / 88,5	1,550	0,200	0,120	0,8	Single phase	230	95 / 105	89,7 / 89,2	2,490	0,260	0,160
1	Single phase	220	64 / 70	92,9 / 92,8	1,550	0,200	0,120	1	Single phase	230	76 / 84	92,8 / 92,6	2,490	0,260	0,160

## 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)	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