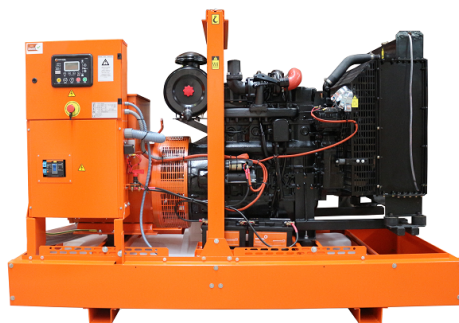




INDUSTRIAL RANGE

1 MAIN FEATURES

T Triphasic	 Diesel fuel	 Iveco / N45 TM2A	 Leroy somer / TAL044D	 / G-545
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Hz 50Hz	 1500 r.p.m.	V 400V	cos φ 0,8
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Standby power (STP)	110 kVA	88 kW
Prime Power (PRP)	100 kVA	80 kW
Power Continuous (COP)	- kVA	- kW

Hz 60Hz	 1800 r.p.m.	V 480V	cos φ 0,8
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Standby power (STP)	126 kVA	101 kW
Prime Power (PRP)	111 kVA	89 kW
Power Continuous (COP)	- kVA	- kW

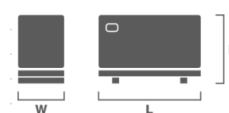
OPEN SKID

Length (L)	2315 mm
Height (H)	1570 mm
Width(W)	995 mm
Weight	1014 kg
Daily tank	200 L



SOUNDPROOF

Length (L)	2315 mm
Height (H)	1570 mm
Width (W)	995 mm
Weight	1509 kg
Daily tank	200 L



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

	50Hz	60Hz
Acoustic pressure level @1m	74 dB(A)	76 dB(A)
Acoustic pressure level @7m	61 dB(A)	63 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	- / -	90 / 72	99 / 79	125
1	Three-phase	440	- / -	72 / 72	79 / 79	100
0,8	Three-phase	415	- / -	100 / 80	110 / 88	160
1	Three-phase	415	- / -	80 / 80	88 / 88	125
0,8	Three-phase	400	- / -	100 / 80	110 / 88	160
1	Three-phase	400	- / -	80 / 80	88 / 88	125
0,8	Three-phase	380	- / -	100 / 80	110 / 88	160
1	Three-phase	380	- / -	80 / 80	88 / 88	125
0,8	Three-phase	240	- / -	100 / 80	110 / 88	250
1	Three-phase	240	- / -	80 / 80	88 / 88	200
0,8	Three-phase	230	- / -	100 / 80	110 / 88	250
1	Three-phase	230	- / -	80 / 80	88 / 88	200
0,8	Three-phase	220	- / -	90 / 72	99 / 79	250
1	Three-phase	220	- / -	72 / 72	79 / 79	200
0,8	Single phase	230	- / -	60 / 48	66 / 53	400
1	Single phase	230	- / -	48 / 48	53 / 53	250
0,8	Single phase	230	- / -	60 / 48	66 / 53	400
1	Single phase	230	- / -	48 / 48	53 / 53	250
0,8	Single phase	220	- / -	60 / 48	66 / 53	400
1	Single phase	220	- / -	48 / 48	53 / 53	250

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	- / -	111 / 89	126 / 101	160
1	Three-phase	480	- / -	92 / 92	104 / 104	125
0,8	Three-phase	440	- / -	112 / 89	127 / 101	160
1	Three-phase	440	- / -	92 / 92	101 / 101	125
0,8	Three-phase	416	- / -	108 / 86	119 / 95	160
1	Three-phase	416	- / -	86 / 86	95 / 95	125
0,8	Three-phase	380	- / -	99 / 79	109 / 87	160
1	Three-phase	380	- / -	79 / 79	87 / 87	125
0,8	Three-phase	240	- / -	111 / 89	126 / 101	400
1	Three-phase	240	- / -	92 / 92	104 / 104	250
0,8	Three-phase	220	- / -	112 / 89	127 / 101	400
1	Three-phase	220	- / -	92 / 92	101 / 101	250
0,8	Three-phase	208	- / -	108 / 86	119 / 95	400
1	Three-phase	208	- / -	86 / 86	95 / 95	250
0,8	Single phase	240	- / -	65 / 52	72 / 58	400
1	Single phase	240	- / -	52 / 52	58 / 58	250
0,8	Single phase	240	- / -	65 / 52	72 / 57	400
1	Single phase	240	- / -	52 / 52	57 / 57	250
0,8	Single phase	230	- / -	65 / 52	72 / 58	400
1	Single phase	230	- / -	52 / 52	58 / 58	250

2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	535	-	-	540	-
Exhaust gas flow (kg/h)	-	-	533	-	-	634
Evacuated Heat (kW)	-	76	83,4	-	91,6	100,5
Maximum back pressure (kPa)	5					
Exhaust silencer attenuation (dB)	18-25					
Output Diameter (mm)	90					

VENTILATION SYSTEMS	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Combustion air flow (m³/min)	-	7,12	-	-	8,45	-
Cooling airflow (m³/min)	132			156		
Maximum load losses (Pa)	147					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	5,7	5,7	6,3	6,1	6,1	6,7
Alternator (kW)	7,3	7,3	8,4	8,7	8,7	9,9
Alternator (kW)	4,8	4,8	5,4	5,9	5,9	6,6

3 ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	N45 TM2A	
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	4 In-Line	
Displacement (L)	4,5	
Cylinder bore (mm)	104	
Cylinder stroke (mm)	132	
Compression Ratio	17,5:1	
Regulation	Mechanic / optional electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	6,6	7,9
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	90,4	100,3
Gross power STP (kWm)	99,8	113,8
Fan power (kWm)	1,8	2,8
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	88,6	97,5
Net Power STP (kWm)	98	111
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	1583,8	1482
BMEP STP (kPa)	1742	1629,6




CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	24,4	209,2	29	221,8
	100%	22	207,7	26,3	221
PRP	75%	16,2	203,5	19,6	220
	50%	11	206,5	13,5	226
COP	100%	-	-	-	-
	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption		< 0,1% of fuel consumption			
REFERENCE CONDITIONS					
Temperature (°C)		40			
Atmospheric pressure (kPa)		100			
CAPACITY					
Coolant (L)		18,5			
Oil (L)		12,8			
STARTING SYSTEM					
Voltage (V)		12			
Power (kW)		3			
Battery (Ah)		100			

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL044D
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	<2%
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 PRP/STP (kVA)	Efficiency PRP/STP (%)	Xd	X'd	X''d	FP (cos Ø)	Phase	Voltage (V)	Power PRP/STP (kVA)	Efficiency PRP/STP (%)	Xd	X'd	X''d
0,8	Three-phase	440	90 / 99	89,2 / 89,0	2,540	0,110	0,066	0,8	Three-phase	480	125 / 138	91,3 / 91,0	3,550	0,154	0,092
1	Three-phase	440	72 / 79	93,0 / 93,1	2,540	0,110	0,066	1	Three-phase	480	100 / 110	94,1 / 94,0	3,550	0,154	0,092
0,8	Three-phase	415	100 / 110	90,5 / 90,1	3,190	0,138	0,082	0,8	Three-phase	440	115 / 127	91,7 / 91,3	3,890	0,168	0,101
1	Three-phase	415	80 / 88	93,9 / 93,8	3,190	0,138	0,082	1	Three-phase	440	92 / 101	94,2 / 94,1	3,890	0,168	0,101
0,8	Three-phase	400	100 / 110	90,8 / 90,4	3,410	0,147	0,088	0,8	Three-phase	416	108 / 119	91,7 / 91,3	4,090	0,177	0,106
1	Three-phase	400	80 / 88	94,1 / 93,9	3,410	0,147	0,088	1	Three-phase	416	86 / 95	94,2 / 94,0	4,090	0,177	0,106
0,8	Three-phase	380	100 / 110	91,0 / 90,5	3,780	0,163	0,098	0,8	Three-phase	380	99 / 109	91,4 / 91,0	4,490	0,194	0,116
1	Three-phase	380	80 / 88	94,1 / 93,9	3,780	0,163	0,098	1	Three-phase	380	79 / 87	93,9 / 93,7	4,490	0,194	0,116
0,8	Three-phase	240	100 / 110	90,5 / 90,1	3,190	0,138	0,082	0,8	Three-phase	240	125 / 138	91,3 / 91,0	3,550	0,154	0,092
1	Three-phase	240	80 / 88	93,9 / 93,8	3,190	0,138	0,082	1	Three-phase	240	100 / 110	94,1 / 94,0	3,550	0,154	0,092
0,8	Three-phase	230	100 / 110	90,8 / 90,4	3,410	0,147	0,088	0,8	Three-phase	220	115 / 127	91,7 / 91,3	3,890	0,168	0,101
1	Three-phase	230	80 / 88	94,1 / 93,9	3,410	0,147	0,088	1	Three-phase	220	92 / 101	94,2 / 94,1	3,890	0,168	0,101
0,8	Three-phase	220	90 / 99	89,2 / 89,0	2,540	0,110	0,066	0,8	Three-phase	208	108 / 119	91,7 / 91,3	4,090	0,177	0,106
1	Three-phase	220	72 / 79	93,0 / 93,1	2,540	0,110	0,066	1	Three-phase	208	86 / 95	94,2 / 94,0	4,090	0,177	0,106
0,8	Single phase	230	60 / 66	86,3 / 85,7	1,330	0,180	0,110	0,8	Single phase	240	65 / 72	88,2 / 87,8	2,090	0,210	0,130
1	Single phase	230	48 / 53	91,5 / 91,4	1,330	0,180	0,110	1	Single phase	240	52 / 58	91,6 / 91,5	2,090	0,210	0,130
0,8	Single phase	230	60 / 66	83,9 / 82,9	2,130	0,179	0,107	0,8	Single phase	240	65 / 72	84,8 / 84,1	2,540	0,213	0,128
1	Single phase	230	48 / 53	89,7 / 89,3	2,130	0,179	0,107	1	Single phase	240	52 / 57	89,2 / 88,8	2,540	0,213	0,128
0,8	Single phase	220	60 / 66	86,3 / 85,7	1,450	0,200	0,120	0,8	Single phase	230	65 / 72	88,2 / 87,8	2,270	0,230	0,140
1	Single phase	220	48 / 53	91,5 / 91,4	1,450	0,200	0,120	1	Single phase	230	52 / 58	91,6 / 91,5	2,270	0,230	0,140

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, kVAh, 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]	0	0
Frequency	•	•
kVA,kW, cos Ø (a)	0	0
Inversion control between main-group	•	•
Protections and Alarms	GRUPEL G-545	OPTIONAL
High / low battery voltage	A	0
Failure in Battery Charge Alternator	A	0
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	0

6 CONTROL PANEL

Engine	GRUPEL G-545	OPTIONAL	Applications	GRUPEL G-545	OPTIONAL
Engine Speed	•	•	Automatic or manual starting	•	•
Low oil pressure protection	•	•	Remote start by NO dry contact	•	•
Oil pressure reading [c]	0	0	Automatic by mains failure	•	•
High temperature engine protection	•	•	Alternating with timesharing	•	•
Engine temperature reading [c]	0	0	Multi-generators synchronization and load sharing (Max. 32 generators) (m)	0	0
Engine battery voltage	•	•	Generator-Main in synchronism and load sharing (1 generator and 1 main) (m)	0	0
Intensity of the engine battery [d]	0	0			
Fuel Consumption [e]	•	•			
Low level of radiator water [f]	0	0			
Engine maintenance scheduled	•	•			
Communication	GRUPEL G-545	OPTIONAL			
USB female type B plug (Max. 6m) [g]	•	•	Optional expansions	GRUPEL G-545	OPTIONAL
USB female type A plug (n)	0	0	DSE2130 (8 inputs dig.) IG-IOM (8 in/outputs dig. + 4 inputs anal.) G-08 (8 inputs dig.)	•	•
RS232 port (Max. 15m) (n)	0	0	DSE2157 I-RB8 G-06 (8 relay outputs)	•	•
RS485 port (Max. 1,2Km) [h]	•	•	DSE890 IL-NT-GPRS G-GSM (GSM and/or GPS)	•	•
Ethernet port RJ45 [i]	0	0	DSE891 IB-LITE G-ETH (ethernet module)	•	•
GSM and/or GPS [j]	0	0	DSE892 IB-LITE - (ethernet module according SNMP protocol)	-	0
ModBus RTU protocol [h]	•	•	DSE2548 IGL-RA15 - (expansion with 8 additional LEDs)	-	0
ModBus TCP protocol [i]	0	0	DSE2510 / 20 (mirror controller, maximum distance 1km)	-	0
SNMP protocol [l]	0	0			
CAN port (Max. 40m)	•	•			
MSC port (Max. 240m) (m)	0	0			
PLC functionality	•	•			

Legend			
•	Available	[d]	Needs additional ammeter
o	Optional	[e]	If information provided by the engine ECU
-	Not available	[f]	Required additional sensor
A	Warning Alarm	[g]	Requires the addition of the IL-NT-S-USB module
S	Stop alarm	[h]	Requires the addition of the IL-NT-RS232-485 module
[a]	Need additional CT	[i]	DeepSea: Requires the addition of the DSE891 module/ ComAp: Requires the addition of the IB-LITE module
[b]	No. of outputs available for standard configuration. The outputs do not include relays and additional terminal connections.	[j]	DeepSea: Requires the addition of the DSE890 module/ ComAp: Requires the addition of the IL-NT-GPRS module
[c]	If the information is not provided by the engine-ECU, you need an additional sensor	[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