



SMART RANGE

1 MAIN FEATURES

T Triphasic	 Diesel fuel	 Perkins / 1103A-33TG1	 Leroy somer / TAL042G	 / 7320
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Hz 50Hz	 1500 r.p.m.	V 400V	cos φ 0,8
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Standby power (STP)	51 kVA	41 kW
Prime Power (PRP)	46 kVA	37 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)	60 kVA	48 kW
Prime Power (PRP)	55 kVA	44 kW
Power Continuous (COP)	- kVA	- kW

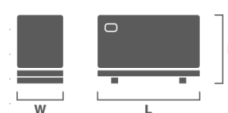
OPEN SKID

Length (L)	1700 mm
Height (H)	1110 mm
Width(W)	960 mm
Weight	724 kg
Daily tank	150 L



SOUNDPROOF

Length (L)	1950 mm
Height (H)	1110 mm
Width (W)	822 mm
Weight	924 kg
Daily tank	40 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	- / -	43 / 34	47 / 38	63
1	Three-phase	440	- / -	34 / 34	38 / 38	50
0,8	Three-phase	415	- / -	46 / 37	51 / 41	80
1	Three-phase	415	- / -	38 / 38	42 / 42	63
0,8	Three-phase	400	- / -	46 / 37	51 / 41	80
1	Three-phase	400	- / -	38 / 38	42 / 42	63
0,8	Three-phase	380	- / -	46 / 37	51 / 41	80
1	Three-phase	380	- / -	38 / 38	42 / 42	63
0,8	Three-phase	240	- / -	46 / 37	51 / 41	125
1	Three-phase	240	- / -	38 / 38	42 / 42	100
0,8	Three-phase	230	- / -	46 / 37	51 / 41	125
1	Three-phase	230	- / -	38 / 38	42 / 42	100
0,8	Three-phase	220	- / -	43 / 34	47 / 38	125
1	Three-phase	220	- / -	34 / 34	38 / 38	100
0,8	Single phase	230	- / -	30 / 24	33 / 26	160
1	Single phase	230	- / -	24 / 24	26 / 26	125
0,8	Single phase	230	- / -	30 / 24	33 / 26	160
1	Single phase	230	- / -	24 / 24	26 / 26	125
0,8	Single phase	220	- / -	30 / 24	33 / 26	160
1	Single phase	220	- / -	24 / 24	26 / 26	125

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	- / -	55 / 44	60 / 48	80
1	Three-phase	480	- / -	46 / 46	50 / 50	63
0,8	Three-phase	440	- / -	55 / 44	60 / 48	80
1	Three-phase	440	- / -	45 / 45	50 / 50	63
0,8	Three-phase	416	- / -	55 / 44	60 / 48	80
1	Three-phase	416	- / -	45 / 45	50 / 50	63
0,8	Three-phase	380	- / -	52 / 41	57 / 45	80
1	Three-phase	380	- / -	41 / 41	45 / 45	63
0,8	Three-phase	240	- / -	55 / 44	60 / 48	160
1	Three-phase	240	- / -	46 / 46	50 / 50	125
0,8	Three-phase	220	- / -	55 / 44	60 / 48	160
1	Three-phase	220	- / -	45 / 45	50 / 50	125
0,8	Three-phase	208	- / -	55 / 44	60 / 48	160
1	Three-phase	208	- / -	45 / 45	50 / 50	125
0,8	Single phase	240	- / -	34 / 27	38 / 30	160
1	Single phase	240	- / -	27 / 27	30 / 30	125
0,8	Single phase	240	- / -	34 / 27	37 / 30	160
1	Single phase	240	- / -	27 / 27	30 / 30	125
0,8	Single phase	230	- / -	34 / 27	38 / 30	160
1	Single phase	230	- / -	27 / 27	30 / 30	125
0,8	Single phase	230	- / -	27 / 27	30 / 30	125
1	Single phase	220	- / -	27 / 27	30 / 30	125

2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	492	537	-	510	551
Exhaust gas flow (m³/min)	-	7	7,7	-	8,8	9,5
Evacuated Heat (kW)	-	30	35	-	39	43
Maximum back pressure (kPa)	10					
Exhaust silencer attenuation (dB)	18-25					
Output Diameter (mm)	65					

VENTILATION SYSTEMS	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Combustion air flow (m³/min)	-	2,9	3,1	-	3,7	3,9
Cooling airflow (m³/min)	53			70		
Maximum load losses (Pa)	125					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	7	7	8	8	8	9
Alternator (kW)	4,2	4,2	4,8	4,9	4,9	5,6
Alternator (kW)	2,7	2,7	3,1	3,3	3,3	3,8

3 ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	1103A-33TG1	
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	3 In-Line	
Displacement (L)	3,3	
Cylinder bore (mm)	105	
Cylinder stroke (mm)	127	
Compression Ratio	17,25:1	
Regulation	Mechanic	
Rotation speed	1500	1800
Piston Speed (m/s)	6,4	7,62
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	42,2	50,5
Gross power STP (kWm)	46,5	55,6
Fan power (kWm)	0,9	1,7
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	41,3	48,8
Net Power STP (kWm)	45,6	53,9
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	1023	1020
BMEP STP (kPa)	1128	1124



CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	8,1	-	-	-
PRP	100%	7,2	-	-	-
	75%	5,6	-	-	-
	50%	4,1	-	-	-
COP	100%	-	-	-	-
	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption		< 0,15% of fuel consumption			
REFERENCE CONDITIONS					
Temperature (°C)		25			
Atmospheric pressure (kPa)		100			
CAPACITY					
Coolant (L)		10,2			
Oil (L)		8,3			
STARTING SYSTEM					
Voltage (V)		12			
Power (kW)		3			
Battery (Ah)		100			

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL042G
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



SMART 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	43 / 47	89,8 / 89,5	2,010	0,100	0,050	0,8	Three-phase	480	63 / 69	90,2 / 89,8	2,950	0,148	0,074
1	Three-phase	440	34 / 38	93,0 / 93,0	2,010	0,100	0,050	1	Three-phase	480	50 / 55	93,4 / 93,2	2,950	0,148	0,074
0,8	Three-phase	415	50 / 55	89,7 / 89,2	2,620	0,131	0,065	0,8	Three-phase	440	60 / 65	90,0 / 89,5	3,350	0,167	0,083
1	Three-phase	415	40 / 44	93,2 / 93,0	2,620	0,131	0,065	1	Three-phase	440	48 / 52	93,2 / 92,9	3,350	0,167	0,083
0,8	Three-phase	400	50 / 55	89,6 / 89,1	2,830	0,142	0,071	0,8	Three-phase	416	57 / 62	89,8 / 89,3	3,550	0,178	0,089
1	Three-phase	400	40 / 44	93,2 / 92,9	2,830	0,142	0,071	1	Three-phase	416	45 / 50	93,1 / 92,8	3,550	0,178	0,089
0,8	Three-phase	380	48 / 52	89,6 / 89,1	2,980	0,149	0,074	0,8	Three-phase	380	52 / 57	89,3 / 88,8	3,880	0,194	0,097
1	Three-phase	380	38 / 42	93,2 / 92,9	2,980	0,149	0,074	1	Three-phase	380	41 / 45	92,7 / 92,4	3,880	0,194	0,097
0,8	Three-phase	240	50 / 55	89,7 / 89,2	2,620	0,131	0,065	0,8	Three-phase	240	63 / 69	90,2 / 89,8	2,950	0,148	0,074
1	Three-phase	240	40 / 44	93,2 / 93,0	2,620	0,131	0,065	1	Three-phase	240	50 / 55	93,4 / 93,2	2,950	0,148	0,074
0,8	Three-phase	230	50 / 55	89,6 / 89,1	2,830	0,142	0,071	0,8	Three-phase	220	60 / 65	90,0 / 89,5	3,350	0,167	0,083
1	Three-phase	230	40 / 44	93,2 / 92,9	2,830	0,142	0,071	1	Three-phase	220	48 / 52	93,2 / 92,9	3,350	0,167	0,083
0,8	Three-phase	220	43 / 47	89,8 / 89,5	2,010	0,100	0,050	0,8	Three-phase	208	57 / 62	89,8 / 89,3	3,550	0,178	0,089
1	Three-phase	220	34 / 38	93,0 / 93,0	2,010	0,100	0,050	1	Three-phase	208	45 / 50	93,1 / 92,8	3,550	0,178	0,089
0,8	Single phase	230	30 / 33	79,8 / 78,6	1,480	0,170	0,090	0,8	Single phase	240	34 / 38	78,6 / 77,3	2,050	0,210	0,110
1	Single phase	230	24 / 26	86,4 / 85,7	1,480	0,170	0,090	1	Single phase	240	27 / 30	84,9 / 84,0	2,050	0,210	0,110
0,8	Single phase	230	30 / 33	79,9 / 78,8	1,760	0,171	0,085	0,8	Single phase	240	34 / 37	78,8 / 77,5	2,200	0,213	0,106
1	Single phase	230	24 / 26	86,4 / 85,8	1,760	0,171	0,085	1	Single phase	240	27 / 30	85,0 / 84,2	2,200	0,213	0,106
0,8	Single phase	220	30 / 33	79,8 / 78,6	1,620	0,190	0,090	0,8	Single phase	230	34 / 38	78,6 / 77,3	2,230	0,230	0,120
1	Single phase	220	24 / 26	86,4 / 85,7	1,620	0,190	0,090	1	Single phase	230	27 / 30	84,9 / 84,0	2,230	0,230	0,120
								1	Single phase	230	27 / 30	85,0 / 84,2	2,200	0,210	0,110
								1	Single phase	220	27 / 30	85,0 / 84,2	2,200	0,210	0,110

5 CONTROL PANEL



GENSET	DEESEA 7320	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity	•	•
Frequency	•	•
RMS values	•	•
Generator phase sequence	•	•
Generator earth current [a]	0	0
No. of registers events	250	250
Real time clock	•	•
PIN protection	•	•
kWh, kVAh, kVAh, kVAh, cos Ø	•	•
Synchroscope (m)	-	0
Nº of available outputs [b]	6	6
Engine run hours	•	•
Indication of alarms on LCD	•	•
Total no. of LED indicators	12	12
No. of LED alarms	4	4
Sound signalling alarms	•	•
Scheduler	•	•
Fuel Level	•	•

Electrical network	DEESEA 7320	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity [a]	-	0
Frequency	•	•
kVA,kW, cos Ø (a)	-	0
Inversion control between main-group	•	•
Protections and Alarms	DEESEA 7320	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	DEEPSEA 7320	OPTIONAL	Applications	DEEPSEA 7320	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
Engine battery voltage	•	•	Generator-Main in synchronism and load sharing (1 generator and 1 main) (m)	-	0
Intensity of the engine battery [d]	0	0			
Fuel Consumption [e]	•	•			
Low level of radiator water [f]	0	0			
Engine maintenance scheduled	•	•			
Communication	DEEPSEA 7320	OPTIONAL	Optional expansions	DEEPSEA 7320	OPTIONAL
USB female type B plug (Max. 6m) [g]	•	•	DSE2130 (8 inputs dig.) IG-IOM (8 in/outputs dig. + 4 inputs anal.) G-08 (8 inputs dig.)	•	•
USB female type A plug (n)	-	0	DSE2157 I-RB8 G-06 (8 relay outputs)	•	•
RS232 port (Max. 15m) (n)	•	•	DSE890 IL-NT-GPRS G-GSM (GSM and/or GPS)	•	•
RS485 port (Max. 1,2Km) [h]	•	•	DSE891 IB-LITE G-ETH (ethernet module)	•	•
Ethernet port RJ45 [i]	0	0	DSE892 IB-LITE - (ethernet module according SNMP protocol)	•	•
GSM and/or GPS [j]	0	0	DSE2548 IGL-RA15 - (expansion with 8 additional LEDs)	•	•
ModBus RTU protocol [h]	•	•	DSE2510 / 20 (mirror controller, maximum distance 1km)	•	•
ModBus TCP protocol [i]	0	0			
SNMP protocol [l]	•	•			
CAN port (Max. 40m)	•	•			
MSC port (Max. 240m) (m)	-	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