



SMART RANGE

1 MAIN FEATURES

T Triphasic	 Diesel fuel	 Perkins / 1103A-33TG1	 Leroy somer / TAL042E	 / 7320
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Hz 50Hz	 1500 r.p.m.	V 400V	cos φ 0,8
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Standby power (STP)	44 kVA	35 kW
Prime Power (PRP)	40 kVA	32 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)	55 kVA	44 kW
Prime Power (PRP)	50 kVA	40 kW
Power Continuous (COP)	- kVA	- kW

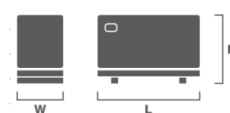
OPEN SKID

Length (L)	1700 mm
Height (H)	1110 mm
Width (W)	960 mm
Weight	703 kg
Daily tank	150 L



SOUNDPROOF

Length (L)	1950 mm
Height (H)	1110 mm
Width (W)	822 mm
Weight	903 kg
Daily tank	40 L



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

Acoustic pressure level @1m	77 dB(A)	81 dB(A)
Acoustic pressure level @7m	65 dB(A)	69 dB(A)

AVAILABLE VOLTAGES - 50Hz

FP (cos φ)	Phase	Voltage	COP (kVA/kW)	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	440	- / -	35 / 28	39 / 31	50
1	Three-phase	440	- / -	28 / 28	31 / 31	40
0,8	Three-phase	415	- / -	40 / 32	44 / 35	63
1	Three-phase	415	- / -	32 / 32	35 / 35	50
0,8	Three-phase	400	- / -	40 / 32	44 / 35	63
1	Three-phase	400	- / -	32 / 32	35 / 35	50
0,8	Three-phase	380	- / -	40 / 32	43 / 35	63
1	Three-phase	380	- / -	32 / 32	35 / 35	50
0,8	Three-phase	240	- / -	40 / 32	44 / 35	100
1	Three-phase	240	- / -	32 / 32	35 / 35	80
0,8	Three-phase	230	- / -	40 / 32	44 / 35	100
1	Three-phase	230	- / -	32 / 32	35 / 35	80
0,8	Three-phase	220	- / -	35 / 28	39 / 31	100
1	Three-phase	220	- / -	28 / 28	31 / 31	80
0,8	Single phase	230	- / -	25 / 20	28 / 22	125
1	Single phase	230	- / -	20 / 20	22 / 22	100
0,8	Single phase	230	- / -	25 / 20	28 / 22	125
1	Single phase	230	- / -	20 / 20	22 / 22	100
0,8	Single phase	220	- / -	25 / 20	28 / 22	125
1	Single phase	220	- / -	20 / 20	22 / 22	100

AVAILABLE VOLTAGES - 60Hz

FP (cos φ)	Phase	Voltage	COP (kVA/kW)	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	480	- / -	50 / 40	55 / 44	63
1	Three-phase	480	- / -	40 / 40	44 / 44	50
0,8	Three-phase	440	- / -	49 / 39	54 / 43	80
1	Three-phase	440	- / -	39 / 39	43 / 43	63
0,8	Three-phase	416	- / -	46 / 37	51 / 40	80
1	Three-phase	416	- / -	37 / 37	40 / 40	63
0,8	Three-phase	380	- / -	42 / 34	46 / 37	80
1	Three-phase	380	- / -	34 / 34	37 / 37	63
0,8	Three-phase	240	- / -	50 / 40	55 / 44	125
1	Three-phase	240	- / -	40 / 40	44 / 44	100
0,8	Three-phase	220	- / -	49 / 39	54 / 43	160
1	Three-phase	220	- / -	39 / 39	43 / 43	125
0,8	Three-phase	208	- / -	46 / 37	51 / 40	160
1	Three-phase	208	- / -	37 / 37	40 / 40	125
0,8	Single phase	240	- / -	28 / 22	31 / 24	125
1	Single phase	240	- / -	22 / 22	24 / 24	100
0,8	Single phase	240	- / -	28 / 22	30 / 24	125
1	Single phase	240	- / -	22 / 22	24 / 24	100
0,8	Single phase	230	- / -	28 / 22	31 / 24	125
1	Single phase	230	- / -	22 / 22	24 / 24	100

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)	3,5	3,5	4,0	4,1	4,1	4,7
Alternator (kW)	2,3	2,3	2,6	2,8	2,8	3,1

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	TAL042E
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	35 / 39	89,4 / 89,1	2,030	0,107	0,053	0,8	Three-phase	480	50 / 55	89,8 / 89,3	2,920	0,155	0,077
1	Three-phase	440	28 / 31	92,8 / 92,8	2,030	0,107	0,053	1	Three-phase	480	40 / 44	93,0 / 92,8	2,920	0,155	0,077
0,8	Three-phase	415	40 / 44	89,2 / 88,7	2,600	0,137	0,068	0,8	Three-phase	440	49 / 54	89,3 / 88,8	3,410	0,181	0,090
1	Three-phase	415	32 / 35	92,9 / 92,7	2,600	0,137	0,068	1	Three-phase	440	39 / 43	92,8 / 92,5	3,410	0,181	0,090
0,8	Three-phase	400	40 / 44	89,2 / 88,6	2,810	0,148	0,074	0,8	Three-phase	416	46 / 51	89,2 / 88,6	3,580	0,189	0,094
1	Three-phase	400	32 / 35	92,8 / 92,6	2,810	0,148	0,074	1	Three-phase	416	37 / 40	92,6 / 92,3	3,580	0,189	0,094
0,8	Three-phase	380	40 / 43	88,9 / 88,3	3,070	0,163	0,081	0,8	Three-phase	380	42 / 46	88,6 / 88,0	3,920	0,207	0,103
1	Three-phase	380	32 / 35	92,7 / 92,4	3,070	0,163	0,081	1	Three-phase	380	34 / 37	92,2 / 91,9	3,920	0,207	0,103
0,8	Three-phase	240	40 / 44	89,2 / 88,7	2,600	0,137	0,068	0,8	Three-phase	240	50 / 55	89,8 / 89,3	2,920	0,155	0,077
1	Three-phase	240	32 / 35	92,9 / 92,7	2,600	0,137	0,068	1	Three-phase	240	40 / 44	93,0 / 92,8	2,920	0,155	0,077
0,8	Three-phase	230	40 / 44	89,2 / 88,6	2,810	0,148	0,074	0,8	Three-phase	220	49 / 54	89,3 / 88,8	3,410	0,181	0,090
1	Three-phase	230	32 / 35	92,8 / 92,6	2,810	0,148	0,074	1	Three-phase	220	39 / 43	92,8 / 92,5	3,410	0,181	0,090
0,8	Three-phase	220	35 / 39	89,4 / 89,1	2,030	0,107	0,053	0,8	Three-phase	208	46 / 51	89,2 / 88,6	3,580	0,189	0,094
1	Three-phase	220	28 / 31	92,8 / 92,8	2,030	0,107	0,053	1	Three-phase	208	37 / 40	92,6 / 92,3	3,580	0,189	0,094
0,8	Single phase	230	25 / 28	70,1 / 77,8	1,560	0,190	0,090	0,8	Single phase	240	28 / 31	78,2 / 76,9	2,080	0,230	0,110
1	Single phase	230	20 / 22	85,9 / 85,2	1,560	0,190	0,090	1	Single phase	240	22 / 24	84,5 / 83,7	2,080	0,230	0,110
0,8	Single phase	230	25 / 28	79,2 / 78,0	1,820	0,187	0,093	0,8	Single phase	240	28 / 30	78,3 / 77,0	2,220	0,228	0,114
1	Single phase	230	20 / 22	85,9 / 85,3	1,820	0,187	0,093	1	Single phase	240	22 / 24	84,6 / 83,8	2,220	0,228	0,114
0,8	Single phase	220	25 / 28	70,1 / 77,8	1,700	0,210	0,100	0,8	Single phase	230	28 / 31	78,2 / 76,9	2,270	0,250	0,120
1	Single phase	220	20 / 22	85,9 / 85,2	1,700	0,210	0,100	1	Single phase	230	22 / 24	84,5 / 83,7	2,270	0,250	0,120

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