

INDUSTRIAL RANGE

1 MAIN FEATURES


T Triphasic
 Diesel fuel
 Volvo / TAD1641GE
 Leroy somer / TAL047C
 / 7320

Hz 50Hz	1500 r.p.m.	V 400V	cos φ 0,8
Standby power (STP)	550 kVA	440 kW	
Prime Power (PRP)	500 kVA	400 kW	
Power Continuous (COP)	- kVA	- kW	

Hz 60Hz	1800 r.p.m.	V 480V	cos φ 0,8
Standby power (STP)	640 kVA	512 kW	
Prime Power (PRP)	571 kVA	457 kW	
Power Continuous (COP)	- kVA	- kW	


OPEN SKID

Length (L)	4500 mm
Height (H)	2240 mm
Width (W)	1750 mm
Weight	3728 kg
Daily tank	1000 L



SOUNDPROOF

Length (L)	4500 mm
Height (H)	2240 mm
Width (W)	1750 mm
Weight	4801 kg
Daily tank	1000 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 φ)	Phase	Voltage	COP (kVA/kW)	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	440	- / -	460 / 368	506 / 405	630
1	Three-phase	440	- / -	368 / 368	405 / 405	630
0,8	Three-phase	415	- / -	500 / 400	550 / 440	800
1	Three-phase	415	- / -	400 / 400	440 / 440	630
0,8	Three-phase	400	- / -	500 / 400	550 / 440	800
1	Three-phase	400	- / -	400 / 400	440 / 440	630
0,8	Three-phase	380	- / -	475 / 380	523 / 418	800
1	Three-phase	380	- / -	380 / 380	418 / 418	630
0,8	Three-phase	240	- / -	500 / 400	550 / 440	1250
1	Three-phase	240	- / -	400 / 400	440 / 440	1000
0,8	Three-phase	230	- / -	500 / 400	550 / 440	1250
1	Three-phase	230	- / -	400 / 400	440 / 440	1000
0,8	Three-phase	220	- / -	460 / 368	506 / 405	1250
1	Three-phase	220	- / -	368 / 368	405 / 405	1000
0,8	Single phase	230	- / -	460 / 368	506 / 405	2000
1	Single phase	230	- / -	368 / 368	405 / 405	1600

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	- / -	571 / 457	640 / 512	800
1	Three-phase	480	- / -	466 / 466	524 / 524	630
0,8	Three-phase	440	- / -	569 / 455	638 / 510	800
1	Three-phase	440	- / -	465 / 465	519 / 519	630
0,8	Three-phase	416	- / -	555 / 444	611 / 488	800
1	Three-phase	416	- / -	444 / 444	488 / 488	630
0,8	Three-phase	380	- / -	520 / 416	572 / 458	800
1	Three-phase	380	- / -	416 / 416	458 / 458	630
0,8	Three-phase	240	- / -	571 / 457	640 / 512	1600
1	Three-phase	240	- / -	466 / 466	524 / 524	1250
0,8	Three-phase	220	- / -	569 / 455	638 / 510	1600
1	Three-phase	220	- / -	465 / 465	519 / 519	1250
0,8	Three-phase	208	- / -	555 / 444	611 / 488	1600
1	Three-phase	208	- / -	444 / 444	488 / 488	1250
0,8	Single phase	240	- / -	511 / 409	567 / 454	2500
1	Single phase	240	- / -	433 / 433	483 / 483	2000


2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Exhaust gas temperature (°C)	-	443	455	-	435	470
Exhaust gas flow (m³/min)	-	85	92	-	100,6	110,4
Evacuated Heat (kW)	-	326	356	-	373	442
Maximum back pressure (kPa)	10					
Exhaust silencer attenuation (dB)	#Error					
Output Diameter (mm)	168					

VENTILATION SYSTEMS	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Combustion air flow (m³/min)	-	35,5	38	-	44	45,8
Cooling airflow (m³/min)	474			594		
Maximum load losses (Pa)	150					
RADIATION	50 Hz			60 Hz		
	COP	PRP	STP	COP	PRP	STP
Engine (kW)	18	18	20	22	22	24
Alternator (kW)	24,4	24,4	28,4	29,3	29,3	33,9
Alternator (kW)	15,9	15,9	18,4	19,8	19,8	22,6

3 ENGINE SPECIFICATIONS


GENERAL SPECIFICATIONS	50 Hz	60 Hz
Model	TAD1641GE	
Emissions	STAGE 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)	16,12	
Cylinder bore (mm)	144	
Cylinder stroke (mm)	165	
Compression Ratio	16,5:1	
Regulation	Electronic	
Rotation speed	1500	1800
Piston Speed (m/s)	8,3	9,9
Gross power COP (kWm)	-	-
Gross power PRP (kWm)	441	504
Gross power STP (kWm)	484	565
Fan power (kWm)	11	19
Net Power COP (kWm)	-	-
Net Power PRP (kWm)	430	485
Net Power STP (kWm)	473	546
BMEP COP (kPa)	-	-
BMEP PRP (kPa)	2200	2100
BMEP STP (kPa)	2400	2300



CONSUMPTION		50Hz		60Hz	
Fuel consumption	LOAD	lt/h	g/kWh	lt/h	g/kWh
STP	100%	113,9	200	139,6	210
	75%	103,2	199	122,1	206
	50%	76,3	196	89,8	202
PRP	100%	51,6	199	60,5	204
	75%	-	-	-	-
	50%	-	-	-	-
COP	100%	-	-	-	-
	75%	-	-	-	-
	50%	-	-	-	-
Oil consumption	< 0,09% of fuel consumption				
REFERENCE CONDITIONS					
Temperature (°C)	25				
Atmospheric pressure (kPa)	100				
CAPACITY					
Coolant (L)	61				
Oil (L)	48				
STARTING SYSTEM					
Voltage (V)	24				
Power (kW)	7				
Battery (Ah)	155				

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL047C
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	460 / 506	94,5 / 94,2	2,830	0,165	0,116	0,8	Three-phase	480	625 / 688	94,1 / 93,8	3,870	0,227	0,159
1	Three-phase	440	368 / 405	96,4 / 96,3	2,830	0,165	0,116	1	Three-phase	480	500 / 550	96,0 / 95,9	3,870	0,227	0,159
0,8	Three-phase	415	500 / 550	94,1 / 93,8	3,450	0,202	0,141	0,8	Three-phase	440	590 / 649	93,8 / 93,4	4,350	0,255	0,178
1	Three-phase	415	400 / 440	96,2 / 96,0	3,450	0,202	0,141	1	Three-phase	440	472 / 519	95,8 / 95,6	4,350	0,255	0,178
0,8	Three-phase	400	500 / 550	93,9 / 93,5	3,720	0,218	0,152	0,8	Three-phase	416	555 / 611	93,6 / 93,2	4,580	0,268	0,188
1	Three-phase	400	400 / 440	96,0 / 95,8	3,720	0,218	0,152	1	Three-phase	416	444 / 488	95,6 / 95,4	4,580	0,268	0,188
0,8	Three-phase	380	475 / 523	93,8 / 93,4	3,920	0,229	0,160	0,8	Three-phase	380	520 / 572	93,1 / 92,7	5,140	0,301	0,211
1	Three-phase	380	380 / 418	95,9 / 95,7	3,920	0,229	0,160	1	Three-phase	380	416 / 458	95,3 / 95,0	5,140	0,301	0,211
0,8	Three-phase	240	500 / 550	94,1 / 93,8	3,450	0,202	0,141	0,8	Three-phase	240	625 / 688	94,1 / 93,8	3,870	0,227	0,159
1	Three-phase	240	400 / 440	96,2 / 96,0	3,450	0,202	0,141	1	Three-phase	240	500 / 550	96,0 / 95,9	3,870	0,227	0,159
0,8	Three-phase	230	500 / 550	93,9 / 93,5	3,720	0,218	0,152	0,8	Three-phase	220	590 / 649	93,8 / 93,4	4,350	0,255	0,178
1	Three-phase	230	400 / 440	96,0 / 95,8	3,720	0,218	0,152	1	Three-phase	220	472 / 519	95,8 / 95,6	4,350	0,255	0,178
0,8	Three-phase	220	460 / 506	94,5 / 94,2	2,830	0,165	0,116	0,8	Three-phase	208	555 / 611	93,6 / 93,2	4,580	0,268	0,188
1	Three-phase	220	368 / 405	96,4 / 96,3	2,830	0,165	0,116	1	Three-phase	208	444 / 488	95,6 / 95,4	4,580	0,268	0,188
0,8	Single phase	230	460 / 506	87,4 / 86,4	10,360	0,607	0,425	0,8	Single phase	240	625 / 688	84,3 / 83,1	15,510	0,909	0,636
1	Single phase	230	368 / 405	91,5 / 90,9	10,360	0,607	0,425	1	Single phase	240	500 / 550	89,3 / 88,5	15,510	0,909	0,636

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CONTROL PANEL



GENSET	DEEPSEA 7320	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity	•	•
Frequency	•	•
RMS values	•	•
Generator phase sequence	•	•
Generator earth current [a]	o	o
No. of registers events	250	250
Real time clock	•	•
PIN protection	•	•
kWh, kVAr, kVAh, kVARh, cos Ø	•	•
Synchroscope (m)	-	o
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	DEEPSEA 7320	OPTIONAL
Voltage (Ph-Ph / Ph-N)	• / •	• / •
Current intensity [a]	-	o
Frequency	•	•
kVA, kW, cos Ø (a)	-	o
Inversion control between main-group	•	•
Protections and Alarms	DEEPSEA 7320	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	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]	o	o	Automatic by mains failure	•	•
High temperature engine protection	•	•	Alternating with timesharing	-	o
Engine temperature reading [c]	o	o	Multi-generators synchronization and load sharing (Max. 32 generators) (m)	-	o
Engine battery voltage	•	•	Generator-Main in synchronism and load sharing (1 generator and 1 main) (m)	-	o
Intensity of the engine battery [d]	o	o			
Fuel Consumption [e]	•	•	Optional expansions	DEEPSEA 7320	OPTIONAL
Low level of radiator water [f]	o	o	DSE2130 (8 inputs dig.) IG-IOM (8 in/outputs dig. + 4 inputs anal.) G-08 (8 inputs dig.)	•	•
Engine maintenance scheduled	•	•	DSE2157 I-RB8 G-06 (8 relay outputs)	•	•
Communication	DEEPSEA 7320	OPTIONAL	DSE890 IL-NT-GPRS G-GSM (GSM and/or GPS)	•	•
USB female type B plug (Max. 6m) [g]	•	•	DSE891 IB-LITE G-ETH (ethernet module)	•	•
USB female type A plug (n)	-	o	DSE892 IB-LITE - (ethernet module according SNMP protocol)	•	•
RS232 port (Max. 15m) (n)	•	•	DSE2548 IGL-RA15 - (expansion with 8 additional LEDs)	•	•
RS485 port (Max. 1,2Km) [h]	•	•	DSE2510 / 20 (mirror controller, maximum distance 1km)	•	•
Ethernet port RJ45 [i]	o	o	Standards		
GSM and/or GPS [j]	o	o	Working temperature	-30 -> 70°C	
ModBus RTU protocol [h]	•	•	Protection index (when assembled with sealing gasket)	IP65	
ModBus TCP protocol [i]	o	o	Degree of humidity (during 48hr)	93% / 40°C	
SNMP protocol [l]	o	o			
CAN port (Max. 40m)	•	•			
MSC port (Max. 240m) (m)	-	o			
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