

STYG 20

INDUSTRIAL RANGE

Powered by
YANMAR



K1



WATER-COOLED



50 HZ



NON REQUIRED 97/68



DIESEL



3 PHASE or SINGLE PHASE



Generating Rates



SERVICE		PRP	STANDBY
Power	kVA	20.0	22.0
Power	kW	16.4	17.4
Rated Speed	r.p.m.	1500	
Standard Voltage	V	240	
Available Voltages	V	240/415 V	
Rated at power factor	Cos Phi	0.8	

Ambient conditions of reference: 1000 mbar, 25°C, 30% relative humidity. Power according to ISO 3046 normative. P.R.P. Prime Power - ISO 8528: Prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during a 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

Standby Power (ISO 3046 Fuel Stop power): Power available for use at variable loads for limited annual time (500h), within the following limits of maximum operating time: 100% load 25h per year – 90% load 200h per year. No overload available. Applicable in case of failure of the main in areas of reliable electrical network.

Engine Specifications @ 1500 r.p.m.

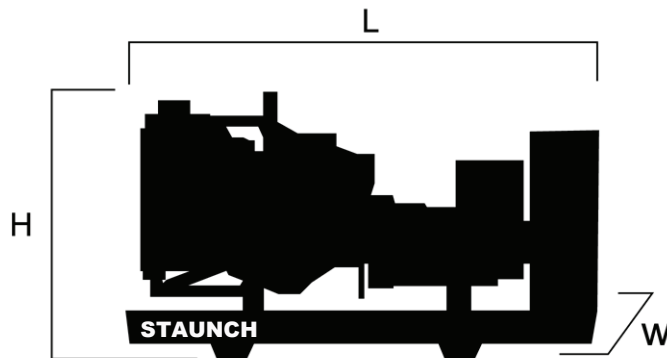
ENGINE		PRP	STANDBY
Rated Output	kW	16.4	22.0
Manufacturer		YANMAR	
Model		4TNV88	
Engine Type		Diesel 4 strokes-cycle	
Injection Type		Direct	
Aspiration Type		Natural	
Cylinders Arrangement		4 - L	
Bore and Stroke	mm	88 x 90	
Displacement	L	2.19	
Cooling System		Coolant	
Lube Oil Specifications		SAE 3 class 10W30 / API grade CD,CF	
Fuel Consumption 100% PRP	l/h	4.27	
Fuel Consumption 75 % PRP	l/h	3.29	
Fuel Consumption 50 % PRP	l/h	2.4	
Lube Oil Consumption Full Load	g/kwh	0.27	
Total Oil Capacity	L	7.4	
Total Coolant Capacity	L	5.5	
Governor	Type	Mechanical	
Air Filter	Type	Dry - 4" Single Element	
Inner diameter exhaust pipe	mm	51.6	

Air Inlet System		
Intake Air Flow	m3/h	88.7
Cooling Air Flow	m3/s	0.8
Alternator fan air flow	m3/s	0.09

Starting System		
Starting Motor	kW	1.4
Starting Motor	CV	1.90
Recommended Battery Capacity	Ah	92
Auxiliary Voltage	Vcc	12

Fuel System		
Fuel Specifications		Diesel
Fuel Tank volume	L	77
Autonomy 75% load	Hours	23.4

Dimensions



Weight and Dimensions		Open Type	Silent	Super Silent
(L) Length	mm	1650	2000	N/A
(H) Height	mm	1100	1220	N/A
(W) Width	mm	750	750	N/A
Shipping Volume seaworthy (standard supplier)	m3	1.36	1.68	N/A
(*) Wet weight	Kg	425	750	N/A
Noise level @ 1m	dB	N/A	N/A	N/A
Noise level @ 7m	dB	N/A	66.0	N/A

(*) (with standard accessories)

Weights and dimensions based on standard products. Illustrations may include optional equipment.
 Technical data described here correspond with the available information at the moment of printing.
 Industrial design under patent.

Local Distributor

Generator		
STAMFORD		P144D1
Poles	Num	4
Winding Connections (standard)		Double delta
Frame Mounting		S-4 7.5"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		self-excited, brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)

Control & Power Panel

1. CM Control Panel.
2. CP Power Panel.
3. On/Off Switch.
4. Emergency Stop.
5. Main Line Circuit Breaker for overload protection.
6. Main bus /hardwire connection panel with safety protection.



Auto-start multilingual control panel Deep Sea 4520

1. Voltage between each Phase & Neutral
2. Voltage between Phases
3. Current (amps) on each Phase
4. Frequency
5. Active, Apparent & Reactive Power
6. Power Factor
7. Instant Power (KwH) and Accumulative power)
8. Fuel level
9. Oil pressure, coolant temperature, oil temperature
10. Battery voltage, battery charging alternator voltage
11. Engine Speed
12. Hours running
13. Multilingual (Spanish, English, French, Italian, Portuguese, Polish, German, Chinese, Russian, Swedish, Norwegian)

Engine Alarms

1. High coolant temperature.
2. Low oil pressure.
3. Battery charge alternator
4. Start failure.
5. Low water level.
6. Fuel storage.
7. Overspeed.
8. Underspeed.
9. Low battery voltage.
10. High coolant temperature by sensor.
11. Low oil pressure by sensor.
12. Low fuel level by sensor.
13. Unexpected shutdown.
14. Stop failure.
15. Low engine temperature.
16. Genset voltage drops.
17. Emergency stop.

Genset Alarms

1. Over-load
2. Unbalanced voltage
3. Over voltage
4. Under voltage
5. Over frequency
6. Under frequency
7. Over load
8. Short-circuit
9. Inverse Power
10. Asymmetry among phases
11. Genset contactor Failure

Mains Alarms

1. Maximum Mains Voltage.
2. Minimum Mains Voltage.
3. Maximum Mains Frequency.
4. Minimum Mains Frequency.
5. Mains phase sequence failure.
6. Mains power failure.
7. Mains contactor switching failure.

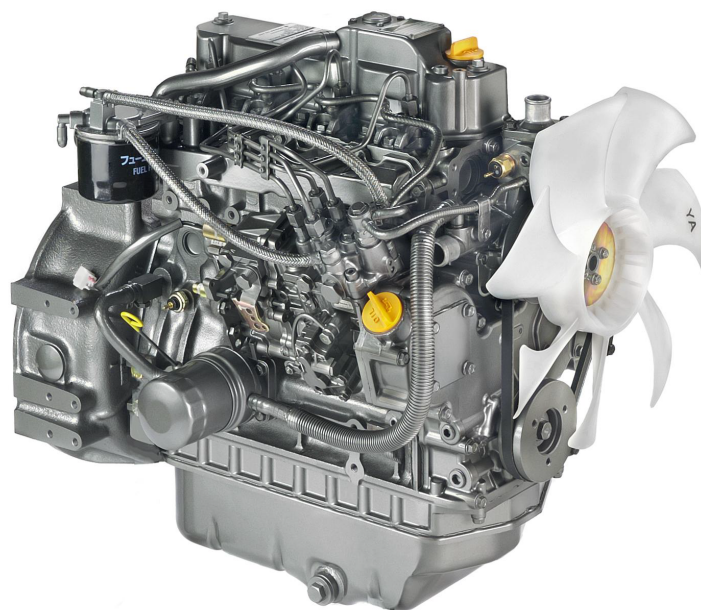
Programmable Alarms:

There are 5 programmable alarms on text and action that could be associated to any engine alarms and showed on the auxiliary led 1 and 2 of the display

Generating Sets Standard and Optional Features

Engine

- Diesel engine
- 4 strokes-cycle
- Water-cooled
- 12V Electrical system
- Radiator with blowing fan
- Water separator decanting filter (visible level)
- Mechanical governor
- Dry air cleaner
- Hot components and radiator guards
- Mobile components guards



Yanmar 4TNV88 Industrial Engine

Alternator :

- 4 pole Self-excited and Self-regulated
- IP23 protection degree
- Insulation H class

Electrical system

- Control and power electric panel, with measurements devices and controller (according to necessity and configuration)
- Earth leakage protection adjustable (time & sensibility) standard
- 3 pole circuit breaker
- Pre-heating resistance (standard on automatic control panels) / water jacket heater
- Battery charge alternator with ground connection
- Starting battery/ies installed and connected to the engine (supports included)
- Ground connection electrical installation with connection ready for ground pike (not supplied)
- Battery isolator switch

Open set version

- Emergency stop button
- Steel made chassis
- Antivibration shock absorber
- Chassis with integrated fuel tank
- Fuel level sensor
- Drain cap fuel tank
- Steel made residential silencer -15db(A) attenuation

Optional :

- Fuel transfer pump
- Steel made residential silencer -35db(A) attenuation.
- Deep Sea Battery Charger



Stamford P0/P1 Range Alternator

Application Data

Exhaust System		
Maximum exhaust temperature	°C	470
Exhaust Gas Flow	m3/min	4.24
Maximum allowed back pressure	mm H2o	1300