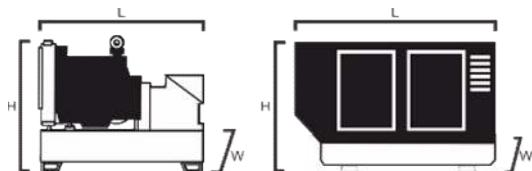


## FB438X-C1(Open)&FC438X-C1(Silent)

Engine		Alternator			Powered by	
DCEC 6ZTAA13-G2		Leroy Somer TAL-A473-A			DCEC	
Frequency	Phase	Power Factor			Emissions	
60Hz/1800rpm	3-Phase	Factor Cos $\Phi$ = 0.8			N/A	
RATINGS	Prime Power (PRP)		Standby Power (ESP)	Rated Current (Amps)	Fuel Consumption @100% Load	
Voltage (V)	kWe	kVA	kWe	kVA	(A)	L/h
380/220	350	438	380	475	665,5	95,60
<b>440/254</b>	<b>350</b>	<b>438</b>	<b>380</b>	<b>475</b>	<b>574,7</b>	<b>95,60</b>
220/127	350	438	380	475	1149,5	95,60



### KEY FEATURES

- High efficient water cooled diesel engine.
- Single bearing with brushless alternators (Class H, with AVR).
- Radiator with pressure cap and drain point.
- Fully guarded engine-driven fan.
- Fully welded steel skid base with lifting holes and fork lift legs.
- Integral fuel tank with filler cap and gauge ( $\leq 650$ kVA).
- Heavy duty rubber anti-vibration mountings.
- 12V or 24V maintenance free starter battery and connecting cables.
- Separate engine-driven battery charging alternator.
- Spin on oil and fuel filters and dry type air filter element.
- Industrial silencer (15dBa reduction) supplied loose.
- Auto start control system with LCD show.
- Battery charger provided.
- Main line 3P circuit breaker.
- Rigorous factory test wiring with IEC standard.
- Operation & Maintenance manual & Wiring diagrams.
- Wide range of optional extra features available.

DIMMNSIONS & WEIGHTS	OPEN	SILENT
Length (L)-mm	3100	4627
Width (W)-mm	1300	1900
Height (H)-mm	2100	2230
Dry Weight-kg:	3850	4570
Standard Fuel Tank Capacity(L)	760	1161
(dBA)@7m no load	N/A	$\leq 80$

#### Ratings:

All three phase generator sets are rated at 0.8 power factor. All single-phase generator sets are rated at 0.8 or 1.0 power factor.  
(1)PRP (Prime Power):

Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

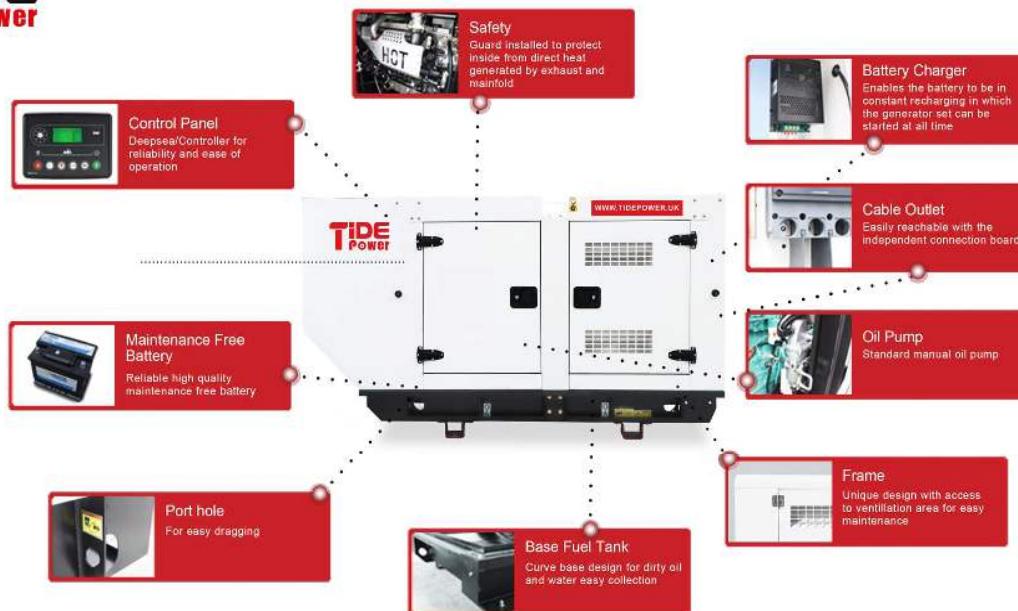
(2)ESP (Standby Power):

Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure.

(3)STD:Standard Alternator.

Tide Power reserves the right to change the design or specifications without notice and without any obligation or liability.

## FENOVA SERIES



The soundproof Generating set range offers a very large application target with powers ranging from 5-650KVA at 50 and 60Hz. The new and sturdy design whether it is canopies or containerized enclosure are with maximum noise reduction which make it suitable for all construction sites and home backup power supply, both mobile and stationary. At all time we have kept in our inventory a largerange of accessories to answer any immediate need, for sales or after sales services. Our standard Deepsea control panel with its stand alone cabinet is equipped with a large display screen, emergency button, ignition barrel and circuit breaker. Like every of our finished products, all the parts of the unit are subject to a stringent operating test involving over 30 checks prior to delivery.

## ADVANTAGES OF FENOVA

- Powerful Engine, Large Output Power;
- Stable Performance
- Compact Structure
- Waterproof and Dustproof and weatherproof
- Noise Level 60—80 dBA@7m
- Ambient temperature: -5°C--50°C
- Excellent design and craftsmanship
- Excellent Cooling System
- Automatic Air—Bleeding
- Easy Operation and Maintenance;

**ENGINE**

**DCEC 6ZTAA13-G2**

General Performance	Engine Frequency and Speed	Hz / r/min	60 / 1800	
	Engine Power	kWm	390	415
	Cylinders / Type	6 cyl / In-line / 4-stroke		
	Aspiration	Turbocharged & Charge Air Cooled		
	Governor Type	Electronic		
	Bore / Stroke	130/163		
	Displacement	13		
	Compression Ratio	17:1		
Fuel System	Piston Speed	9,78		
	Engine Idle Speed	800-1000		
	Fuel Consumption at 110% Prime Power	L/h	103,30	
	Fuel Consumption at 100% Prime Power	L/h	95,60	
	Fuel Consumption at 75% Prime Power	L/h	68,60	
Exhaust and Intake System	Fuel Consumption at 50% Prime Power	L/h	45,30	
	Fuel Consumption at 25% Prime Power	L/h	25,70	
	Maximum Intake Air Restriction with Heavy Duty Air Cleaner			
	- Dirty Element	kPa	6,2	
	- Clean Element	kPa	3,2	
Cooling System	Intake Air Flow	Litres/s	636,7	650,0
	Maximum Back Pressure	kPa	13	
	Exhaust Gas Flow	kg/min	40	40,4
	Exhaust Gas Temperature	°C	607	646
	Coolant Capacity - Engine Only	Litres	23,10	
Electric System	Standard Thermostat (Modulating) Range	°C	82-94	
	Maximum Top Tank Temperature	°C	102	N/A
	Electrical System Voltage	V	24	
Lubrication System	Battery	Maintenance-free		
	Connecting Cables	Available		
	Total Oil System Capacity	Litres	45,4	
Energy Balance	Maximum Oil Temperature	°C	N/A	
	Radiated Heat to Ambient	kW	63	67,0
	Heat Rejection to Coolant	kW	158	167
	Heat Rejection to Exhaust	kW	337	359

**ALTERNATOR**

**60Hz/1800rpm**

General Data	Manufacture / Brand	Leroy Somer	
	Model	TAL-A473-A	
	Coupling / No. of Bearings	Direct / Single Bearing	
	Phase / Poles	3-Phase / 4-Pole	
	Power Factor	Cos $\Phi$ = 0.8	
	AVR Regulation	Yes	
	Voltage Regulation	±1 %	
	Insulation Class	H	
	Drip Proof	IP23	
	Excitation system	Self-Excited	
Altitude			≤1000 m

**CONTROLLER** 
**Tide Power Easycon Function Summary**
**Controller Model / DeepSea**
**DSE4520**

**DSE6120**

**DSE7320**

**DSE8610**

**Controller Photos**
**Standard Supply**

**Viewable Parameters**

Phase Voltage



Current



Frequency



Active Power



Reactive Power



Apparent Power



Power Factor



Electric Energy Metering


**Generator Protection**

Abnormal Voltage



Over-current Warning



Over current Protection



Over Frequency Protection



Short Circuit Protection

MCCB / •

MCCB / •

MCCB / •

MCCB / •

**Engine Figure**

Oil Pressure



Water Temperature



Fuel Meter / Fuel Sensor



Speed



Battery Voltage



Elapsed Time


**Engine Protection**

Low Oil Pressure Warning



Low Oil Pressure Protection



High Temperature Warning



High Temperature Protection



Overspeed Warning



Overspeed Protection



Alternator Charger


**Functions**

Remote Start



AMF (Auto Main Failure)



Programmable Input



Programmable Output



Expand Module



Communication Function



•/ RS232 / 485

•/ RS232 / 485

Communication Port

USB

USB

•/ RS232 / 485

•/ RS232 / 485

CAN



Service Indicate



Fault History



Gen-Gen Synchronising



Gen-Mains Synchronising


**Remark:**

• Standard Supply

○ Available as Optional

✗ Not Available