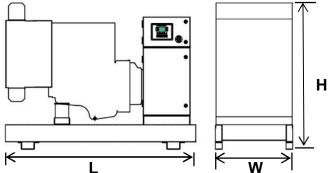
Tide Power

Technical Data

May 2018

						May 2010		
Engine		Alternator	Generator Model					
Huachai Deutz BF6M101	5CP-LA G	Leroy-Som	ner LSA47.2S	4	FB375-D / Open	FC375-D / Silent		
50Hz/1500R.P.M	3-Pł	ase		Power Facto	or	Emissions		
	011		Fa	ctor Cos Φ :	= 0.8	N/A		
DATINGS	Prime Power		Standb	y Power	Rated Current	Fuel Consumption		
RATINGS	(Pf	RP)	(E	SP)	Amps	@100% Load		
Voltage (V)	kWe	kVA	kWe	kVA	(A)	L/h		
380/220	300	375	330	413	569.8	79.3		
400/230	300	375	330 413		541.3	79.3		
415/240	300	375	330	413	521.7	79.3		

	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 650kVA).
	- 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.
J. Tide Power	- Main line 3P circuit breaker.
	- Rigorous factory test wiring with IEC standard.
	- Operation & Maintenance manual & Wiring diagrams.
Photo For Reference Only	- Wide range of optional extra features available.



Overall Dimensions & Weights - Open Set							
Length (L)-mm:	2950						
Width (W)-mm:	1520						
Height (H)-mm:	2100						
Dry Weight-kg:	2595						

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. **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. **Standby Power:** Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure. No overload available for this service as relevant alternators are peak continuous rated at 27 °C.

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

Engine		Huachai BF6M1015CP-LA						
		Units	Prime	Standby				
	Frequency	Hz	50					
General	Engine Speed	r/min	1500					
	Cylinders / Type		6 cyl / in V form at angle o	of 90 / 4-stroke				
	Aspiration		Turbocharge	d				
	Governor Type		Electronic Gove	ernor				
	Bore / Stroke	mm	132/145					
Performance	Displacement	Litres	11.906					
	Compression Ratio		16.5:1					
	Rotation Direction (From Flywheel Side)		Anti-clockwis	e				
	Engine Idle Speed	rpm	600 ±50					
	Engine Max.Power	kWm	365					
	Fuel Consumption at 110% Prime Power	Litres/hour	87.2					
Fuel System	Fuel Consumption at 100% Prime Power	Litres/hour	79.3					
	Fuel Consumption at 75% Prime Power	Litres/hour	63.4					
	Fuel Consumption at 50% Prime Power	Litres/hour	43.6					
	Fuel Consumption at 25% Prime Power	Litres/hour	23.8					
	Standard Fuel Tank Capacity	Hours / Litres	8 / 630					
	Max. Allowable Intake Resistance	mbar	50					
Air System	Turbocharger Inlet Size	mm	122					
	Volume of Air Intake (25 $^\circ C/1000$ mbar)	m³/h	1432					
	Max. Exhaust Back Pressure	mbar	50					
Exhaust	Turbocharger exhaust flange inner diameter size	mm	117					
System	Exhaust Gas Flow	kg/h	1720					
	Max. Exhaust Temperature	°C	520					
	Oil Capacity-Initial Oil Filling	Litres	38					
Oil System	Oil consumption rate		<0.3% of Fuel Cons	sumption				
On Oystern	Oil Filter Element Type		Disposable Fi	ter				
	No. of Oil Oilter Element		1					
Cooling	Coolant Capacity - Engine Only	Litres	17					
Cooling System	Open Temperature of the Two Thermostats	°C	79-87					
2,000	Thermostat Open Temperature Both	°C	94-102					
Electric	Electrical System Voltage	V	24					
System	Battery		Maintenance-f	ree				
	Connecting Cables		Auailable					

Alternator

50Hz/1500R.P.M

		Units	
	Manufacture / Brand		Leroy-Somer
	Model		LSA47.2S4
	Coupling / No. of Bearings		Direct / Single Bearing
	Phase / Poles		3-Phase / 4-Pole
	Power Factor		Cos Φ = 0.8
General Data	AVR Regulation		Yes
Ceneral Data	Voltage Regulation		± 0,5 %
	Insulation Class		н
	Drip Proof		IP23
	Excitation		Shunt
	Altitude	m	≤1000
	Overspeed	min ⁻¹	2250

Tide Power Technology Co., Ltd. NO.1 Building, YiXu Mechanical & Electrical Park, Gaishan Town, Cangshan District, Fuzhou, Fujian, China. Our Tel: +86-591-28068999, Fax: +86-591-28068900 Email: sales@tpshk.com www.tpshk.com

Controller Model / ComAp	EC 2.0 / Nano Plus	EC 3.0 / AMF20	EC 4.0 / AMF25	EC 5.0 / IG-NT
Controller Photos	restitueer			
Standard Supply	×	٠	0	0
Viewable Parameters			i i	
Phase Voltage	×	3	3	3
Current	Instrumentation	•	•	•
Frequency	•	•	•	•
Active Power	×	•	•	•
Reactive Power	×	•	•	•
Apparent Power	×	•	•	•
Power Factor	×	•	•	٠
Electric Energy Metering	×	•	•	•
Generator Protection				
Abnormal Voltage	•	•	•	•
Over-current Warning	X	•	•	•
Over current Protection		•	•	•
Over Frequency Protection		•	•	•
Short Circuit Protection	MCCB / ●	MCCB / ●	MCCB / ●	MCCB / ●
Engine Figure				
Oil Pressure	•	•	•	•
Water Temperature	•	•	•	•
Fuel Meter / Fuel Sensor		-		-
	●/○	•/0	●/○	•/0
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)	v	•		
Programmable Intput		•	•	
Programmable Output	•	•	•	•
Expand Module	•	0	0	0
Communication Function	×	0	0	•/ RS232 / 485
Communication Port	USB	0	0	RS232 / 485
CAN	<u> </u>	×	•	R3232 / 463
Service Indicate			•	•
Fault History	×	×	· · · · · · · · · · · · · · · · · · ·	-
-	•	•	•	•
Gen-Gen Synchronising Gen-Mains Synchronising	X	× ×	×	.

 Tide Power Technology Co., Ltd.
 NO.1 Building, YiXu Mechanical & Electrical Park, Gaishan Town, Cangshan District, Fuzhou, Fujian, China.

 Our Tel: +86-591-28068999, Fax: +86-591-28068900
 Email: sales @tpshk.com
 www.tpshk.com

"Ensure a quieter life with our sound attenuation system." Features:

Extremely Rugged & Highly Corrosion Resistant Construction

- Body made from 2.0mm sheet steel components with powder coating
- 8-12 hours built-in fuel tank integrated into the skid-mount base
- Excellent design and craftmanship
- Compact structure and longer service life
- Residential silcencer to made sure the sound level.
- Zinc alloy with black powder coated locks and hinges and proven to withstand corrosive conditions.

Easy Commissioning and Maintenance

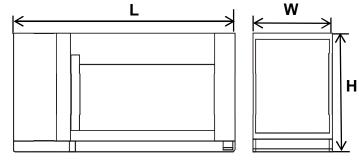
- Separate & Standing control room at end side, easy reachable electrical power connections, board.
- Side doors allowing 180° opening rotation .
- Radiator fill access through cover in canopy roof.
- Lube oil drain and radiator drain.
- Manual lube oil pump provided.

Security and Safety

- Earth leakage protection.
- 40-50mm non-inflammable sponge inside.
- Control panel viewing window in a lockable access door.
- Emergency stop button mounted on canopy exterior.
- Fuel fill and battery can only be reached via lockable access doors.
- Exhaust silencing system enclosed for operator safety
- Efficient management of cooling air to avoid high water temperature,
 reliable operation under harshest conditions.

Transportability

- Lifting points on top to move genset easily.
- Fork lift legs provided and easy to loose to fix the genset.



Overall Dimensions & Weight & Noice								
Dimensions	Weight Noice Level Base Tank @100% I							
(L x W x H) mm	kg	dB(A) at 7m	Hours	Litres				
4400×1800×2250	4600	65-78	8	630				



Automatic Transfer Switch

Tide Power offers not only a changeover switch but also an integrated mains detection and switch system for your 24 Hour Power Protection. The system enables automatic start-up and operation of the generating set in the event of a mains power failure, overvoltage or loss of a mains automatic re-transfer once it come back.

System Advantages

- Automatically transfer and re-transfer load from main power to gen-power without operator intervention.operation (Both automatic and manual).
- ATS Controller (AMF function), seamless integration with AMF25
- Available from 32 4000A, better protection for 4 pole switch.
- Available in standard, bypass isolation and service-entrance configurations.
- Configurable in open, closed and programmed transition operating modes.
- Designed to interface seamlessly with TIDE POWER generators and switchgear.
- Drip proof IP42 enclosure.
- Easy installation: wall-mounted & floor standing
- Comes fully loaded with the technology to do the job.

50/60 Hz, 32-4000 Amps

Rated Current	Amps	32	63	80	100	125	160	200	250	300	315	400	630	800	1000	1250	1600	2000	2500	3200	4000A
	Chinese	×	Α	×	Α	×	в	×	с	×	×	с	с	D	D	D	D	Е	E	E	×
Breaker Type	ABB	в	в	×	в	в	в	в	в	×	с	с	D	D	D	D	D	Е	E	×	×
	Socomec	×	в	в	в	в	в	×	в	×	×	с	D	D	D	D	Е	E	E	E	E

Dimensions : mm

A: 400×200×500	B: 500×300×650	C: 600×400×1200	D: 800×600×1400	E: 1000×800×1600
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Optionals (All depends)

Genset:

Materials & Miscellaneous

- Marine class painting and other special painting
- Standard accoustic enclosure genset
- Extended warranty
- Extended factory test
- Additional sensors
- Off road trailer type
- Standard ATS
- Mounted fire extinguisher
- Additional vibration isolation
- Wooden case packaging
- Tide Power tool kit
- Additional operation manual
- Nylon canvas wrapped packaging
- Iron shelf for double stack shipping
 - Water jacket heater
- Additional CE features selection.

Genset:

Materials & Miscellaneous

Custom-Made solutions

- On road trailer (EU) type
- Rental type genset
- Mining type genset
- Marine type genset
- High temp. Radiator for silenttype genset
- EPA series gensets



A.T.S - 4 Poles

Optionals (All depends)

Diesel Engine/ Baseframe Mounted Accessories:

Cooling System

- Engine heat guards

- Low coolant level alarm & shutdown (Depends on engine series)

- High temp. & Anti-erosion radiator upgrade for open
- type genset
- 50% antifreeze @-36°C

Filters

- Extra air filters for time-maintenance

- Double heavy duty air filters
- Extra fuel filters for time-maintenance
- Extra oil filters for time-maintenance

Exhaust

- Residential silencer for open type genset
- Stainless steel silencer and kits
- Heat protection guard

Fuel & Oil

- Separated / External fuel tank
- Water fuel separator
- 3 way fuel valve
- Manual bypass valve
- Lub oil make up tank
- Lub oil drain pump
- Fuel level sensor
- Fuel cooler
- Automatic remote fuel supply with fuel level switch
- & low fuel level alarmshutdown.
- Coolant heater 220/240V
 - Lub-oil heater for severe cold weather

Starting & Charging

- Bulk starting battery -17°C below
- Battery removal switch
- Battery heater

Control System & Power Termination:

Control System & Breakers

- Different functional modules with
- Tide Easycon refer to other table
- Mounted audible and visable llighting
- Control panel cover (80kva or below)
- Motorized circuit breaker 3 Poles
- Motorized circuit breaker 4 Poles
- ACB 3 Poles
- MCCB 4 poles
- Different breaker brands, like ABB etc
- Leakage protection switch

Custom-Made solutions

Diesel Engine/ Baseframe Mounted Accessories:

Cooling System

- Anti-erosion radiator for silent type genset
- Remote radiator with heat exchanger
- Remote cooling tower with heat exchanger

Filters

Mounted heavy duty air filter

Exhaust

- Mounted heavy duty air filter

Fuel & Oil

- Bulk base fuel tank
- Bunded base fuel tank

Starting & Charging

- None

Control System & Power Termination:

Control System & Breakers

Various standard sockets mounted outside the enclosure

Optionals (All depends)

Brushless Alternator:

- 12 Lead stator (change voltage depends)
- Interchangeable S.A.E flanges and drive discs
- Convenient filters on air inlets and outlets
- Coastal type [] Alternator painting color P.M.G or auxiliary
- AREP for Leroy-Somer only
- Shunt trip
- Exterior potentiometer
- Auxiliary contacts and double bearing
- Anti-condensation heater
- Stator thermal protection
- Quadrature droop kits

Enclosure & Canopy:

Weather protective & Sound proof

- R series
- ISO 20ft containerized
 - ISO 40ft containerized
- Stainless steel locks and hinges

Custom-Made solutions

Brushless Alternator:

- Temperature rise class F Marine type alternator IP upgrade HV

Enclosure & Canopy:

Weather protective & Sound proof

- · Super silent enclosure
- Weather proof enclosure
- Flat sponge sound absorber enclosure
- Porous sheet with rockwool sound absorber enclosure

Please refer to Tide Power sales department for full details of the above options.

Warranty

Tide Power distributor, dealer, or authorized representative performs startup within 6 months of the date of shipment from the factory, warranty coverage will begin on the startup date (Register the startup date to Tide with in 6 month is essential and can be enforced). This warranty does not apply to malfunctions caused by damages, unreasonable use, misuse, repair or service by unauthorized persons, or normal wear and tear.

Warranty Coverage

Generators used to commercial utility source: One (1) year or 1000 hours (whichever occurs first) from date of shipment from the factory or registered startup date.