



# JIANGSU LONGEN POWER TECHNOLOGY CO., LTD.

## Diesel Generating Set LGXL-17

50Hz

### General Features

● <b>Engine</b>	LG490BD	LONGEN Made in China
● <b>Alternator</b>	WHI164D	LONGEN Made in China
● <b>Controller</b>	HGM6120NC	SMARTGEN Made in China

<b>Prime power</b>	<b>12.5kW/12.5kVA</b>
<b>Standby power</b>	<b>13.7kW/13.7kVA</b>



- Electric speed control
- Electric starter. 12VDC battery. with automatic 12VDC battery charger
- Equipped with MCCB CHINT installed at the generator, the rated current of MCCB is suitable for the current of the generator
- Voltage regulation (from no load to 100% load):  $\leq \pm 1.5\%$
- Automatically adjusts capacity when load changes
- Frequency regulation (from no load to 100% load):  $\leq \pm 5\%$
- Anti-vibration system: The engine and alternator are mounted on an anti-vibration rubber system, ensuring high load and vibration resistance
- Fuel tank: Steel, mounted inside the soundproof housing (not mounted under the engine base); fueling position on the engine roof and not higher than the engine roof; fuel tank cap with lock for safety
- Radiator 40°C max. fans are driven by belt with safety guard
- Shell protection level  $\geq$  IP54 with lightning protection;
- Cooling system: Internal cooling with water available with the machine and fan;
- Noise-proof enclosure: Standard noise level 73dB(A) at 100% load, measured at a distance of 7 m with open space;
- The generator base frame has damping rubber that is surface treated with chemicals to avoid oxidation and electrostatically painted,
- 12v charge dynamo
- Equipped with 12-hours operation base tank
- Design comply to ISO8528/GB2820
- Anti-vibration damping rubber set
- Automatically adjusts voltage electronically
- Unlimited running time
- Ground Wire: The machine has a ground wire to ensure safe grounding.
- User manual, Packing list

### General Ratings

Voltage	Power				Frequency (Hz)	Phase	P.F (COS $\phi$ )	Prime Current (A)
	Prime		Standby					
	kw	kva	kw	kva				
220V	12.5	12.5	13.7	13.7	50	1	1	56.8
230V	12.5	12.5	13.7	13.7	50	1	1	54.3
240V	12.5	12.5	13.7	13.7	50	1	1	52.1
254V	12.5	12.5	13.7	13.7	50	1	1	49.2

#### Prime power

This rating is for the supply of continuous electrical power at variable load. A 10% overload capability is available for a period of 1 hour within each 12-hour period of operation.

- The machine runs continuously 24/24 at 75% of the machine's continuous capacity: Only rests once for about 30 minutes for every 12 hours of operation.

#### Standby power

This rating is for the supply of continuous electrical power at variable load in the event of utility power failure. No overload is permitted.

#### Rated voltage

Available with customers requirements.

#### Ability to close load

Startup from 0% load to 100% load within 30 seconds

### Sales Promise

LONGEN POWER provides a full line of 100% brand new and high quality products.

Each and every unit is strictly factory tested before delivery.

Warranty is according to below standard conditions, subject to the earlier one.

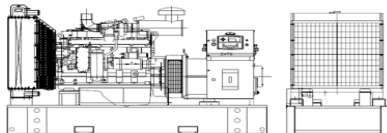
1. 15 months, counted on the day LONGEN sold to the first buyer.
2. One year after installation.
3. 1500 running hours.

Service and parts are available from LONGEN or distributors in your location.

### Dimension And Weight

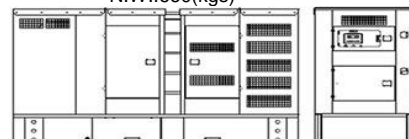
#### Open frame

Size(L\*W\*H):1350\*670\*860(mm)  
N.W.:540 (kgs)



#### Silent with Canopy

Size(L\*W\*H): 1420\*720\*940 (mm)  
N.W.:660(kgs)





# JIANGSU LONGEN POWER TECHNOLOGY CO., LTD.

## Diesel Generating Set LGXL-17

50Hz

### Engine Specifications

1	Engine model	LG490BD
2	Engine manufacturer	LONGEN
3	Number of cylinders	4
4	Cylinder arrangement	in line
5	Cycle	4 stroke
6	Aspiration	Naturally aspirated
7	Bore×Stroke(mm×mm)	90 x 103
8	Displacement (Liter)	2.7
9	Compression Ratio	19:1
10	Prime power/speed (kW/RPM)	22/1500RPM
11	Standby power/speed (kW/RPM)	24.2/1500RPM
12	Fuel system	Direct injection pump
13	Cooling system	Cooling by water (mixed with antifreeze solution) combined with axial fan
14	Coolant capacity (L)	11.0
15	Total lubrication system capacity (L)	6.5
16	Fuel consumption at 100% load (L/h)	4.2
17	Fuel consumption at 75% load (L/h)	3.18
18	Fuel consumption at 50% load (L/h)	2.2
19	Starter motor	By 12VDC motor, with automatic charging regulator and battery
20	Dynamo	12V
21	Governor	Electronic

### Alternator Specifications

Compliance with GB755,BS5000,VDE0530,NEMAMG1-22,IED34-1,CSA22.2 and AS1359

1	Alternator model	WH1164D
2	Prime Power	15 kVA
3	Standby Power	17 kVA
4	Alternator manufacturer	LONGEN Made in China
5	Exciter type	Single bearing, Brushless, Self-excited, rotating magnetic field
6	Rated speed	1500 RPM
7	Rated frequency	50 Hz
8	Phase and wires	1 phase, 2 wires
9	Rated voltage	220V or 230V
10	Power factor	1
11	Frequency regulation	≤ ± 5%
12	Voltage Regulation	≤±1%
13	Insulation grade	H
14	Overload	2250 RPM
15	Voltage stabilization	Automatically stabilize voltage by AVR
16	Protection grade	IP23

#### Alternator option

Mecc Alte, Stamford, Longen, Leroy somer





### Control System

SMARTGEN Protection	Model Parameter	
● Low oil pressure	● Volt	● oil pressure
● High water temp	● current	● oil temp
● Over speed	● power	● power factor
● over crank	● speed	● running time
● Over load	● frequency	● water temp
● Over/low volt	● Internet	● battery voltage
● Over/low frequency		● LCD, LED INDICATOR
● Battery charge failure		● USB, RS485
		● AMF (Automatic Mains Failure)

HGM6120NC PHOTO



### Option

#### Generator Set

- Trailer generator set
- ABB MCCB circuit breaker
- 50°C Radiator

#### Fuel system

- 12 hours base fuel tank
- 24 hours base fuel tank
- Dual wall base fuel tank
- External fuel tank

#### Exhaust system

- Residential exhaust silencer

#### Alternator

- PMG excitation
- Anti Condensation Heater

#### For cold area

- Water heater
- Oil heater
- Rapid water preheater (diesel burner)

#### Auto system

- Remote Control panel
- ATS control cabinet
- Paralleling System

External ATS



Water Heater



Oil Heater



Paralleling System



The generator meets the allowed generator emission standards

Total dust amount: < 200 mg/Nm3

NO2 gas content: < 850 mg/Nm3

SO2 gas content: < 500 mg/Nm3

CO content: <1000 mg/Nm3

#### Soundproof cover:

- The machine shell is designed to reduce noise, is electrostatically painted, and is resistant to The effects of tropical climates and high temperatures. The machine can be placed outdoors and has a lock to ensure The safety of The machine shell.

'- The muffler is located inside The machine shell

'- Heat dissipation and chimney are vertically arranged in The machine shell

'- There is a quick-release cover for checking and pouring coolant on The top of The machine shell.

'- The connection from The outside of The machine shell is made of bolts with fixed welding nuts, convenient for disassembly and maintenance.

'- There is an oil drain pipe outside The machine shell, making maintenance, replacement and discharge of lubricating oil, fuel, and coolant easy.

'- Protection level by The outer shell: IP23

#### Output voltage connection system

Use a fixed connection stake:

- Connectors have screw threads and brass bolts, insulated.

- Suitable for the size of the cos head,  $\varnothing \geq 8$

- With protective cover

**Protection mechanism:** 1-phase, 2-pole circuit breaker, current suitable for machine capacity, overload and short circuit protection

#### Machine base frame:

- The machine frame is solidly built, strong, shock-absorbing, anti-vibration for smooth, balanced operation without affecting surrounding equipment and structures; has a shock-absorbing rubber base.

- The frame is folded & welded with high-quality standard steel plate, electrostatically painted

### Contact Us

#### JIANGSU LONGEN POWER TECHNOLOGY CO., LTD.

No. 16 Donghai Rd, Qidong High-Tech Industry Development Zone, Jiangsu, PR.China

Tel: +86 513 83833300 Fax: +86 513 83833306

LONGEN POWER reserves the right to change the specifications and design without notice.





**JIANGSU LONGEN POWER TECHNOLOGY CO., LTD**  
 No.16,Donghai Road, High-tech Industrial Development  
 Zone, Qidong City, Jiangsu Province, China  
 Email: info@long-gen.com  
 Tel: +86-513-83833300  
 Website: www.long-gen.com

## Engine specifications

Type		LG490BD
Aspiration		Naturally aspirated
Displacement(L)		2.7
Bore(mm)xStroke(mm)		90x103
Prime Power(kW)/Speed(r/min)		22
Standby Power (kW)/Speed(r/min)		24.2
Torque(N•m)/Speed(r/min)		140
Fuel Injection System		Direct
Fuel consume rate (g/kW-h)		240
Emission level		CN stage II
<b>Engine</b>		
Type		In-line, water cooled, 4-stroke, direct injection ring-like platform combustion
Speed		1500rpm
Governor		Electronic
Exhaust emission standard		CN stage II
<b>General</b>		
Aspiration		Naturally aspirated
No. of cylinders		4
Compression ratio		19:1
Rotation (looking at flywheel)		Counter clockwise
No. of teeth on flywheel ring gear		120
<b>Governing standards</b>		
Speed droop (static) mech. gov.	[%]	-
Speed droop (static) electr. gov. (EMR/GAC)	[%]	5
<b>Lubrication system</b>		
Oil specification		CF
Oil pump		Gear type driven by crank-shaft gear
Oil filter		Full flow, cartridge type
Lube oil filter		Yes
Oil consumption (as % of fuel consumption)		1.2
Lubrication capacity	[l]	6.5
<b>Output</b>		
Fan reduction	[kW]	2
Net flywheel	[kW]	19
Electrical output		17.1
<b>Fuel System</b>		
Fuel consumption		
25% load of prime power genset 12.5KW	[l/h]	1.1
50% load of prime power genset 12.5KW	[l/h]	2.2
75% load of prime power genset 12.5KW	[l/h]	3.18
100% load of prime power genset 12.5KW	[l/h]	4.2
Fuel oil		Diesel
Fuel filter		Air filter, fuel filter, oil filter and can be replaced
<b>Cooling System</b>		
General engine cooling data		
Max. perm. coolant outlet temperature	[°C]	95
Temperature at CAC outlet at standard conditions	[°C]	85
Coolant capacity	[l]	11
Air to boil (max. permissible cool. air temp. at fan)	[°C]	45
Cooling air flow	[m3/h]	103
Air pressure loss	[bar]	-
Cooling method		Cooled by water mixed with anti-scaling solution, combined with a axial fan; Comes



**JIANGSU LONGEN POWER TECHNOLOGY CO., LTD**  
No.16,Donghai Road, High-tech Industrial Development  
Zone, Qidong City, Jiangsu Province, China  
Email: info@long-gen.com  
Tel: +86-513-83833300  
Website: www.long-gen.com

		with additional water tank
<b>Electrical System</b>		
Voltage	[V]	12
Starter	[kW]	3
Alternator output	[A]	35
Start battery	[A]	≥ 45Ah, airtight type
<b>Engine sensor system</b>		
- Lubricating oil pressure sensor		Yes
- Water temperature sensor		Yes
- Fuel level sensor		Yes



**JIANGSU LONGEN POWER TECHNOLOGY CO., LTD**  
 No.16,Donghai Road, High-tech Industrial Development  
 Zone, Qidong City, Jiangsu Province, China  
 Email: info@long-gen.com  
 Tel: +86-513-83833300  
 Website: www.long-gen.com

## Alternator specifications

Model:	WHI164D
Manufacturer	JIANGSU LONGEN POWER TECHNOLOGY CO., LTD
Prime Power at 40°C:	15KVA/15KW
Standby Power at 40°:	17KVA/17KW
Type:	Brushless, self-excitation, Rotating Exciter, (With A.V.R.)
Rated frequency:	50Hz
Phase:	One phase, two wires
Rated speed:	1500r/min
Voltage:	220V or 230V
Power factor:	1
Working mode:	continuous
Bearing type	Single bearing
Cooling air	The impeller is mounted on the top of the shaft and blows directly
Frequency regulation	$\leq \pm 5\%$
Insulation class	H
Protection	IP 23
Voltage Regulation	$\leq \pm 1\%$
Efficiency at 100% prime power load (4/4)	$\geq 88.4\%$
Overspeed	2250RPM
Overload	Capable of operating for 1 hour at 110% overload within any 6 hour operating period.
Alternator cooling system	Direct blowing shaft head impeller