

## Features

- High quality, reliable and complete generating sets.
- Every generating set carries a comprehensive test program which includes 25%, 50%, 75%, 100% , 110% loading test and series protecting function (example: Low oil pressure , High coolant temperature, over current/load etc.) check.
- Easy for operation and maintenance
- Compact structure & high-strength chassis.
- Base frame design incorporates an intergrade fuel tank for at least 8 hours running (up to 650KVA).
- The canopy body painting adopts the HenKel pretreatment process and the base frame painting adopts sandblasting +AkzoNobel powder, the paint warranty period can be 3 years.
- High-performance free-maintenance batteries with isolation switch.
- Anti- vibration pads are mounted between the engine/alternator feet and the base frame.
- Top lifting point and steel base frame with forklift holes, easy for transportation.
- Compliance with international electrical safety standards.
- Complete protection functions and safety labels.
- A large number of matching optional to meet the needs of various customers.



Photos are for reference only



ISO9001: 2015  
Quality system certified



ISO14001  
System certification



OHSAS18001  
System certification

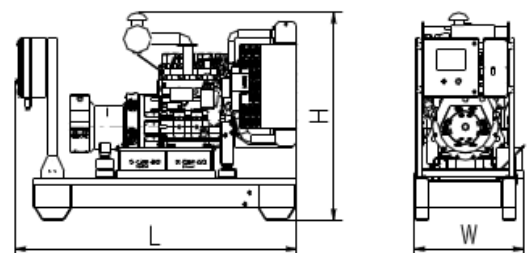
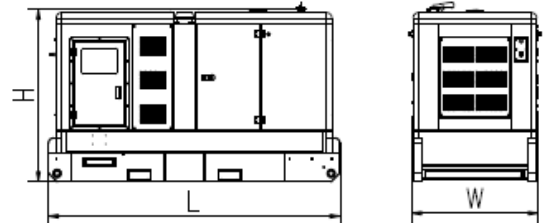


CE certificate

### Dimension, Weight, Fuel Tank Capacity

Generating set model	HPLS450S-1	HPLS450S-1
Length(L) (mm)	4600	3850
Width(W) (mm)	1422	1250
Height(H) (mm)	2530	2030
Dry weight (kg)	5000	3650
Tank capacity(L)	970	760
The loading capacity (40'HC)	2 Sets	3 Sets

This data sheet is for reference only, Please contact the salesman before ordering.



Generating Set Technical Data	
Prime power(Output)	450 kVA/360kW
Standby power(Output)	495kVA/396kW
Rated frequency	50 Hz
Rated speed	1500 rpm
Rated voltage	400 /230V
Phase	3
Power factor	0.8
Noise level @7m dB(A)(only for silent type)	80
Engine model	2506C-E15TAG1
Alternator model	TAL-A47-B
Fuel consumption of 75% load	73 Litres/h
Fuel consumption of 100% load	99 Litres/h

**Also available in the following voltages:**

415/240V, 380/220V, 220/127V, 200/115V (According to customer requirements).

**Rated Power/prime Power(PRP) :**

Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period, in accordance with ISO8528.

**Standby Power/Emergency Standby Power (ESP):**

The maximum power available during a variable electrical power sequence, no overload on these ratings, in accordance with ISO 8528.

### Engine Specifications

Engine model & manufacturer	2506C-E15TAG1 ( Perkins)
Emission Certification	Stage II
Number of cylinders	6
Cylinder arrangement	In-line
Cycle	Four stroke
Aspiration	Turbocharged and air-to-air charge cooled
Bore x Stroke	137 x 171 mm
Displacement	15 Liter
Compression ration	16:1
Prime power/speed	396 kW/1500 rpm
Standby power/speed	435 kW/1500 rpm
Speed governor	ECM
Cooling system	Forced Water Cooling Cycle
Frequency droop	≤1%
Total lubrication system capacity	62 Liter
Coolant capacity	58 Liter
Fuel consumption	100% load 216 g/kW.h (at 1500 rpm)
Starter motor	DC24V
Charge alternator	DC24V

- Heavy duty Perkins diesel engine
- Four stroke, water cooled, naturally aspirated
- Direct injection fuel system
- Mechanical governor system
- 12V DC starter and charge alternator
- Replaceable fuel filter and dry element air filter
- Cooling radiator and fan
- Starter battery(with lead acid) including
- Flexible fuel connection hoses
- Industrial capacity exhaust silencer and steel bellows
- Operation manuals and circuit diagram documents

### Alternator Specifications

Alternator model	TAL-A47-B
Alternator manufacturer	LEROY SOMER
Rated frequency /Rated speed	50 Hz /1500 rpm
Rated output prime power	455KVA
Rated voltage	400 V
Phase	3
Power factor	0.8
Efficiency (%)	93.8%
Exciter type	Self excited, Brushless
Voltage adjust range	≥5.0%
Voltage regulation	≤±1.0%
Insulation grade	H
Protection grade	IP23

### Alternator Optional

Optional alternator brand	Leroy Somer	Mecc alte	MPMC
Optional alternator model	TAL-A47-B	ECO40 2S4B	LYG 354B
Exciter type	Self-excited	Self-excited	Self-excited
Rated output prime power	455kVA	450KVA	450kVA

## Control System

All Polkar generating sets have a control cabinet mounted on the gen-set base frame.

NANO3 (ComAp)



Suitable for ≤ 250kVA Gen-sets

DSE4520 (Deepsea)



Suitable for >250kVA Gen-sets

DSE7320 (Deepsea)



Suitable for all series Gen-sets

The Controller LCD Display	NANO3 control system	DSE4520 control system	DSE7320 control system	Controller Optional
Voltage between phases(L-L)	√	√	√	IL-NT-AMF25(ComAp)
Voltage between neutral and phase(L-N)	×	√	√	
Frequency	√	√	√	IC-NT-MINT(ComAp)
3 Phase current	√	√	√	
Real power(kW) and apparent power(kVA)	√	√	√	DSE8610(Deepsea)
Power factor	√	√	√	
Engine speed	√	√	√	HGM6120(SmartGen)
Running hours	√	√	√	
Coolant temperature	√	√	√	
Oil pressure	√	√	√	
Battery voltage	√	√	√	
LCD alarm indication	√	√	√	
3 Phase mains (utility) sensing	×	√	√	
Protecting Functions				
Emergency stop button	√	√	√	
High coolant temperature	√	√	√	
Low oil pressure	√	√	√	
Over current/load	√	√	√	
under/over speed, frequency & voltage	√	√	√	
Low/High battery voltage	√	√	√	
Low coolant level	Optional	Optional	Optional	

## Optional:

Engine	Alternator	Fuel System	Generating Set
<ul style="list-style-type: none"> <li>Water Jacket Preheater</li> <li>Oil Preheater</li> <li>Oil manual pump</li> </ul>	<ul style="list-style-type: none"> <li>PMG excitation</li> <li>Space heater</li> <li>Winding temperature measuring</li> </ul>	<ul style="list-style-type: none"> <li>12 / 24 hour base tank</li> <li>Dual wall base fuel tank</li> <li>Outside fuel tank</li> <li>Automatic fuel feeding</li> <li>Switch between external tank and base tank (three-way valve)</li> </ul>	<ul style="list-style-type: none"> <li>Tools with the machine</li> <li>Trailer</li> </ul>

## Generating Set Color:

Parts	Standard Color		Optional Color	
	RAL #	Reference	RAL #	Reference
Base frame	Jet black : RAL9005 RGB : 003/005/010		Blue grey: RAL7031 RGB: 003/005/010	
Canopy	Pure white: RAL9010 RGB : 250/255/255		Cream: RAL9001 RGB: 255/252/240	
	Traffic orange: RAL2009 RGB : 235/059/028		Traffic red: RAL3020 RGB: 199/023/018	
			Melon yellow: RAL1028 RGB: 255/140/026	

## Generating Set Type & Trailer Optional:

SR2 Type Generating Set	Trailer Generating Set	ATS Cabinet

## Our other related products:

Mobile Lighting Tower	Hybrid Energy Generator Station

## Contact Us

**Hyperteck Electrical Services Ltd.**  
**P. O. Box 15537-00100 Nairobi, Kenya,**  
**Hyperteck Centre, Thika Super Highway, Exit 7**  
**(Between Crescent Petrol Station & A-Plus Motors, Near Safari Park Hotel)**  
**Tel: +254-716-200200, +254-717-200200**  
**Email: info@hyperteckelectrical.com**  
**Website: www.hyperteckelectrical.com**