

# TECHNICAL DATA

**MODEL: KP-KD90**

DIESEL GENERATING SET

**KPS POWER VIETNAM**

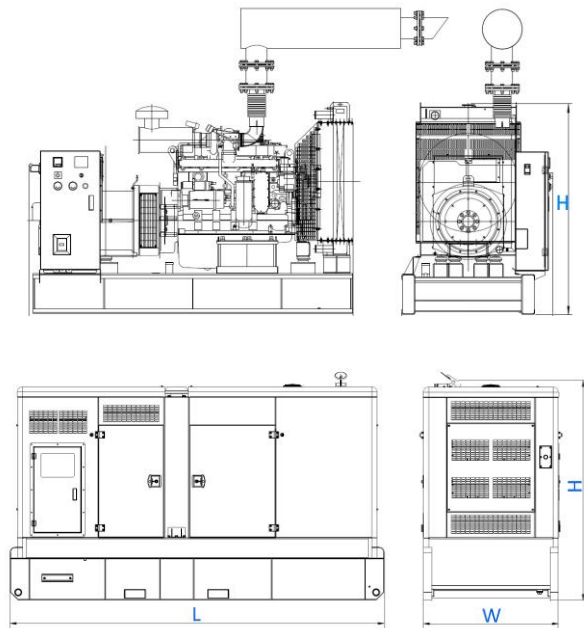
**50HZ**

# KP-KD90-OE/SR

## Features

- Compact structure high-strength chassis
- Easy operation and maintenance, Low cost
- Good performance damping system
- Compliance with international electrical safety standards of electrical system
- High-performance maintenance-free batteries with isolation switch
- 50°C radiator
- Top lifting, Forklift bottom hole design, easy to transport
- Industrial type muffler
- Noise reduction structure, Low overall noise
- Convenient power output interface and ATS Interface
- IP56 (control system)
- The personalized design for user
- Structure type genset Optional: Open (KP-KD90-OE/SR)

Reference images, the actual shall prevail



### Genset Technical Data

Output frequency	50 HZ
Rated speed	1500 rpm
Prime power	90KVA
Standby power	99KVA
Rated voltage	400 V
Phase	3
Noise dB(A) @7m	90
Engine model	4KDG-88
Alternator model	KP274C
Fuel consumption of 100% load	23.2 Litres/h
Fuel consumption of 110% load	24.6 Litres/h
Voltage regulation rate	≤±1%
Random voltage variation	≤±1%
Frequency regulation rate	≤±5%
Random frequency variation	≤±0.5%

### Dimension and Weight

Generating set model	KP-KD90-OE	KP-KD90-SR
Length(L) (mm)	2300	2800
Width(W) (mm)	950	1230
Height(H) (mm)	1268	1650
Dry weight (k g)	1000	1500
Tank capacity ( L )	250	250

### Prime Power

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

### Standby power

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

### Rated voltage

Available with customer requirements.

Engine Specifications	
Engine model	4KDG-88
Engine manufacturer	KOODEC
Number of cylinders	4
Cylinder arrangement	In Line
Cycle	Four strokes
Aspiration	Turbocharged
Bore x Stroke (mm x mm)	110 x 125
Displacement (Liter)	4.750
Compression Ratio	16:1
Prime power/speed (kW/RPM)	82 KW / 1500rpm
Standby power/speed (kW/RPM)	88 KW / 1500rpm
Speed governor	Electrical
Cooling system	Forced Water Cooling Cycle
Steady speed droop (%)	≤1%
Total lubrication system capacity (L)	14L
Coolant capacity (L)	15L
Fuel consumption at 100% load (g/kWh)	200g/kwh
Starter motor	DC24V
Alternator	DC24V
Alternator Specifications	
Rated frequency	50 Hz
Rated speed	1500 rpm
Alternator model	KP274C
Rated output prime power	100KVA
Efficiency (%)	96%
Phase	3
Rated voltage	400 V
Exciter type	Self excited, Brushless
Power factor	0.8
Voltage adjust range	≥5.0%
Voltage regulation NL-FL	≤±1.0%
Insulation grade	H
Protection grade	IP23
Xd DIR. AXIS SYNCHRONOUS	1.50
X'd DIR. AXIS TRANSIENT	0.15
X''d DIR. AXIS SUBTRANSIENT	0.10
Xq QUAD. AXIS REACTANCE	0.72
X''q QUAD. AXIS SUBTRANSIENT	0.16
<b>Optional</b>	
Optional Alternator brand	
Optional Alternator model	
Exciter type	
Rated output prime power	

## Control System

### DATAKOM (Standard)

All KPS Gensets have a control cabinet (the DATAKOM control module DKG309 as standard) mounted on isolated support.

#### Main Features

- Manual and automatic mode
- Parameter configuration via USB interface
- Remote control automatic start/shutdown
- Optional ECU control
- Optional CAN engines
- Optional speed sensor access
- Operating temperature: -30°C to 70°C
- IP56 Rating
- Back-lit icon LCD display
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC configurable
- 6 Digital inputs
- 4 Outputs (2 configurable on Magnetic Pick up/Alt., 4 configurable on CAN version)

#### The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current (Panel Meter)
- Engine run-time Hours
- Engine oil pressure (Panel Meter)
- Engine coolant temperature (Panel Meter)



#### Protecting Functions

- Over frequency / under frequency
- Over voltage / under voltage
- Over speed / under speed
- Over current
- Emergency stop
- Low oil pressure
- High water temperature
- Failure to start / Failure to stop
- Battery charger failure
- Comprehensive shutdown or warning on fault condition

## Control System

### DSE7320 (Optional)

D700 is an advanced control module based on micro-processor, It is an Auto Mains (Utility) Failure Control Module(AMF), have been designed to start and stop generating sets that include electronic And non-electronic engines. Include the additional capability of being able to monitor a mains (utility) supply. when main is not available, It can automatically start the engine and close generating sets breaker automatically, Accurately measure various operational parameters and display all values and alarms information on the LCD. In additional, it can automatically open breaker, and shutdown the engine after the main supply recovers.

#### Main Features

- AMF and ATS and communication and expansion function
- Designed to work with electronic or non-electronic or gas engine simultaneously. (support many kinds of engines ECU).
- Manual, Automatic, Test and remote control mode selectable.
- Monitoring and measuring operational parameters of the mains supply and genset.
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections and multiple parameters display.
- Includes 12 inputs and 8 outputs. 8 inputs are configurable and 6 outputs are configurable.
- Can be programmed using the front panel or by using the PC software.
- Support twelve languages. The language was edited by customer.
- Graded protection: pre-alarm, shutdown and electrical trip, flexible setting.
- The module can be pre-set for four operating modes and protecting parameters.
- Add DSE890 module, internet network monitoring can be realized.
- The firmware can be updated automatically, so customer can have the latest version.



#### The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current
- Generator KVA, KW, PF
- Engine run-time Hours
- Engine oil pressure
- Engine coolant temperature
- Real time clock for time and date, overall runtime

## Optional

### Engine

- Water Jacket Preheater
- Fuel-water separator
- Oil pump
- Oil preheater
- Battery preheater

### Alternator

- PMG excitation
- Space heater
- Winding Temperature Measuring

### Generator Set

- Tools with the machine
- Coolant (-30°C)

### Control System

- AMF function
- ATS control cabinet
- Double-frequency and double voltage
- Single phase
- ABB MCCB

### Fuel System

- 12 / 24 hour base tank (single wall)
- Dual wall base fuel tank
- Outside fuel tank
- Automatic fuel feeding
- Fuel level indicate

### Canopy

- Hired type
- Economy Oil heater
- Trailer

## Contact Us

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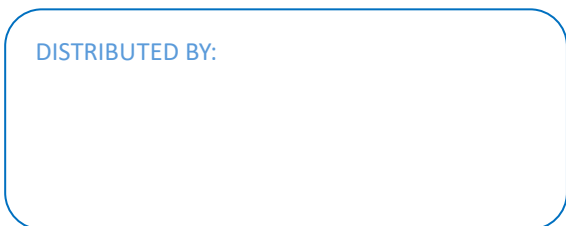
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KPS reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice. Please contact the salesman before ordering.

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