

# LDS Technologies Ltd.

UK MANUFACTURED GENERATORS

LDS TECHNOLOGIES MODEL:  
**LDS1250P - LDS1700P**

PERKINS 4012 SERIES TECHNICAL DATA SHEET

Cost Effective Power:

- Economic power - 4 valve heads
- Reliable power-piston jet cooling
- Clean efficient power-low gaseous emissions
- Global distributor network



LDS Technologies Generating Set Model	Perkins Engine Model	380-415 50hz		480v 60hz	
		KVA	KW	KVA	KW
LDS1250P (PRIME)	4012-46TWG2A	1250	1000	1250	1000
LDS1250P (STANDBY)	4012-46TWG2A	1385	1108	1375	1097
LDS1360P (PRIME)	4012-46TWG3A	1360	1088	1364	1091
LDS1360P (STANDBY)	4012-46TWG3A	1500	1200	1500	1200
LDS1500P (PRIME)	4012-46TAG2A	1500	1200	1513	1210
LDS1500P (STANDBY)	4012-46TAG2A	1650	1320	1663	1330
LDS1700P (PRIME)	4012-46TAG3A	1700	1360	1706	1366
LDS1700P (STANDBY)	4012-46TAG3A	1875	1500	1875	1500

## RATING DEFINITIONS

### Prime Power

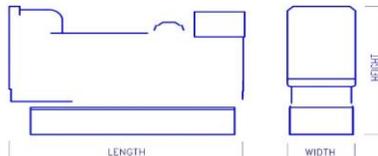
These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and these models can supply 10% overload power for 1 hour in 12 hours.

### Standby Power

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings.

## DIMENSIONS AND WEIGHTS

Genset Models:	Net kg	Length mm	Width mm	Height mm
LDS1250P	8900	4730	1780	2450
LDS1360P	9000	4730	1980	2450
LDS1500P	10000	4990	2190	2510
LDS1700P	10600	5100	2160	2810



## PERKINS ENGINE TECHNICAL DATA

Generating Set Model:	LDS1250P	LDS1360P	LDS1500P	LDS1700P
Engine Manufacturer:	PERKINS	PERKINS	PERKINS	PERKINS
Model:	4012-46TWG2A	4012-46TWG3A	4012-46TAG2A	4012-46TAG3A
Number of Cylinder:	60° 12 VEE	60° 12 VEE	60° 12 VEE	60° 12 VEE
Displacement:	45.8 Litre	45.8 Litre	45.8 Litre	45.8 Litre
Cycle	4 stroke	4 stroke	4 stroke	4 stroke
Cooling System	Water cooled	Water cooled	Water cooled	Water cooled
Combustion System	Direct Injection	Direct Injection	Direct Injection	Direct Injection
Bore/Stroke: (mm)	160 x 190	160 x 190	160 x 190	160 x 190
Aspiration:	Turbo charged A2W	Turbo charged A2W	Turbo charged A2A	Turbo charged A2A
Direction of rotation	Anti-clockwise	Anti-clockwise	Anti-clockwise	Anti-clockwise
Lub. Oil Capacity ltrs:	177	177	177	177
Coolant capacity ltrs:	201	201	210	207
Electrical equipment	24vDC	24vDC	24vDC	24vDC
Compression Ratio:	13.6:1	13.6:1	13.6:1	13.6:1
<b>50 hz</b>				
Engine Speed:	<b>1500rpm</b>	<b>1500rpm</b>	<b>1500rpm</b>	<b>1500rpm</b>
Maximum Continuous Power at Flywheel: kw	1055	1149	1267	1440
Maximum Standby Power at Flywheel: kw	1166	1263	1395	1583
Fuel Cons: L/hr				
110%	288	318	341	405
100%	259	283	310	370
75%	196	213	234	275
50%	143	151	157	187
<b>60hz</b>				
Engine Speed:	<b>1800rpm</b>	<b>1800rpm</b>	<b>1800rpm</b>	<b>1800rpm</b>
Maximum Continuous Power at Flywheel: kw	1055	1149	1272	1440
Maximum Standby Power at Flywheel: kw	1166	1263	1399	1583
Fuel Cons: L/hr				
110%	288	325	351	400
100%	259	291	319	361
75%	196	N/A	195	226
50%	143	N/A	171	188

**NOTE:** All engine performance data based on our maximum continuous rating at the standard reference conditions specified.

Fuel consumption data at full load with a diesel fuel with a specific gravity of 0.85 conforming to BS2869:1988, Class A2

In line with our policy of continuous product development, we reserve the right to change specifications without notice.

### ALTERNATOR MODELS

Mecc Alte (UK)	ECO43-2L	ECO43-VL	ECO46-1S	ECO46-2S
Newage Stamford	PI734A	PI734B	PI734C	PI734E
Leroy Somer	LSA50.2M6	LSA50.2L8	LSA50.2L8	LSA51.2S55

**STANDARD SUPPLY:**

12/24 volt axial starter motor  
 12/24 volt heavy duty batteries  
 Engine driven charging alternator  
 Engine starting motor  
 Set mounted heavy duty tropical radiator and pusher fan  
 Fuel oil filter  
 Lube oil filter  
 Air intake filter  
 Energised to run solenoid  
 Low oil pressure switch  
 High engine temperature switch  
 Industrial silencer with flexible section  
 Mechanical/electrical governor or ECM (check with sales)  
 8hr base fuel tank up to 800kva  
 Open Skid base above 800kva  
 Captive AVMs  
 One set operation manuals  
 One set engine and alternator maintenance books  
 One set electrical schematic drawings

**TESTING** All units are fully tested in our works prior to depatch

**WARRANTY** All PowerCo equipment carries a full 12 month warranty in accordance with our conditions of sale. 24 month warranties are available FOC for standby units running at limited hours (please check with sales for full details).

**AVAILABLE OPTIONS:**

55DBA-85DBA weatherproof acoustic canopies and containers  
 Residential silencers  
 Critical silencers  
 Full EEC trailers  
 Non EEC trailers  
 Free standing fuel tanks  
 Bundled fuel tanks  
 Automatic fuel make-up system  
 Fuel level warnings  
 CE certification  
 Unlimited other options are available (contact sales for details)

**ALTERNATOR:**

We use Cummins Generator Technology (Newage Stamford), Leroy Somer of France and also Mecc Alte of the UK.  
 Brushless revolving field  
 4 pole  
 Class H temperature rise 125/40  
 Class H Insulation  
 Automatic voltage regulator  
 Single bearing  
 0.5% - 1% voltage regulation  
 TIF 50/NEMA MGI-22-43  
 THF>3%  
 RFI to BS800  
 50HZ voltage range - 380/220 - 415/240v  
 60HZ voltage range - 220/127 - 480/277v

**SET MOUNTED DIGITAL CONTROL SYSTEM:**

Deep Sea Electronics model **7120** microprocessor engine controller provides metering and alarm facilities via the LCD display as follows:  
 Emergency stop push button  
 Generator volts line/line  
 Generator volts line/neutral  
 Generator amps 3 phase  
 Generator frequency Hz  
 Mains volts line/line  
 Mains volts line/neutral  
 Mains frequency Hz  
 Engine speed  
 Engine oil pressure  
 Engine coolant temperature  
 Engine battery/volts  
 Engine hours run

Event log

Additional engine parameter metering via CAN (engine permitting)

**PROTECTIONS:**

Generator over-volts - shutdown  
 Generator under-volts - shutdown  
 Mains out of limits  
 Mains under volts  
 Mains over volts  
 Mains under frequency  
 Mains over frequency  
 Over speed - shutdown  
 Under speed - shutdown  
 Over frequency Hz - shutdown  
 Under frequency Hz - shutdown  
 High current - alarm  
 Battery charge fail - alarm  
 Emergency stop  
 Low oil pressure - shutdown  
 High engine temperature - shutdown  
 Fail to start - alarm  
 High battery volts - alarm  
 Low battery volts - alarm  
 Fail to come to rest - alarm  
 Loss of speed sensing signal - alarm  
 LED indication indicates - alarm (amber) or shutdown (red flashing)  
 USB programming port - standard printer cable connection

**TIMERS:**

Start delay  
 Stop delay  
 Crank/crank rest timer  
 Engagement attempt manual crank limit  
 Safety on delay timer  
 Warm up timer  
 Cooling timer  
 Exercise scheduler  
 Energise to stop timer

**CONTROL SYSTEM UPGRADES:**

**7220** gives the following extras:  
 (Standard supply above 650kVA)  
 Generator power factor  
 Generator phase sequence  
 Generator kVA  
 Generator kVA/hr  
 Generator kVAr  
 Generator kVAr/hr  
 Generator kW  
 Generator kW/hr  
 Load shedding control  
 Dummy load control  
 Dual mutual  
 Remote SCADA monitoring (wired)

**7320** gives the following extras:-  
 (Standard supply above 1000kVA)  
 SMS messaging (modem required)  
 SMS start/stop (modem required)  
 Ethernet comms (additional module required)  
 I/O expansion  
 RS232 & RS484 comms

**8610** auto-synchronising unit gives you the following upgrades:-  
 Synchroscope display  
 Bus volts line/line  
 Bus volts line/neutral  
 Bus frequency Hz  
 Bus phase sequence  
 Full automatic synchronising  
 Automatic load sharing  
 Automatic load level demand (switches units on and off line depending on load levels)  
 Modbus RTU/TCP