DYNAMIS
POWER SOLUTIONS

Model DY150P - S12

Power by PERKINS

Perkins®

LEROY SOMER

DSE

Generator Specification

Service	PRP(1)	ESP(2)
Power (KVA)	120	150
Power (KW)	108	120
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230 V	
Rated at power factor (cos Phi)	0,8	

(1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):

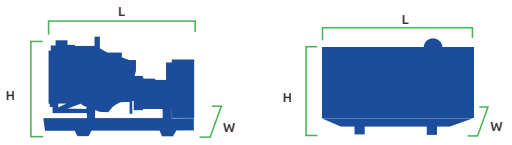
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Power Voltage	ESP		PRP		Standy Amps
	KVA	KW	KVA	KW	
415/240	110	88	00	80	153.0
400/230	110	88	100	80	158.8
380/220	110	88	100	80	167.1

Performance Data		
Model		DY150P-S12
Engine		Perkins
Engine model		1106A-70TG1
Speed control type		Mechanical
Phase		3
Control sytem		Digital
Starter motor voltage		12V
Frequency		50Hz
Engine speed (RPM)		1500
Fuel Consumption (L/H)	100% standby power	33.8
	100% prime power	30.3
	75% prime power	22.7
	50% prime power	15.9

Standard reference Conditions

Note: Standard reference condition 25 °C[77 °F] air inlet temp, 1000m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 Class A2



Dimension and Weight		
Dimension	Open	Silent
Length (L)	2210 mm	3400 mm
Width (W)	750 mm	1140 mm
Height (H)	1410 mm	1795 mm
Net Weight	1140 KG	2020 KG
Fuel Tank (L)	200 L	285 L

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Engine Specification : 1106A-70TG1

Basic technical data	
No. of cylinders	4
Cylinder arrangement	In-line
Cycle	4 stroke
Induction system	Turbocharged
Compression ratio	18.2:1
Bore	103mm
Stroke	137mm
Displacement	7.0L
All ratings certified to within	± 3%
Speed variation at constant load	± 0.25%

Cooling system	
Total coolant capacity -with radiator	21L
Maximum top tank temp	110°C
Thermostat operation range	82-93°C
Radiator face area	0.276m²
Rows and material	38 aluminium
Pressure cap setting	100kPa
Fan diameter	559 mm
Drive ratio	1 : 1
Number of blades	10

Fuel system	
Injection system	Direct
Fuel injection pump	Rotary
Fuel atomiser	Multi-hole
Nozzel opening pressure	29.0 MPa
Fuel lift pump type	Electronic
-flow/hour	120-150 l/h
-pressure	30-75 kPa
Maximum suction head: -1500 rev/min	10kPa

Induction system	
Clean filter	5kpa
Dirty filter	8kpa
Air filter type	2 stage cyclonic/paper element

Lubrication system	
Total system	16L
Maximum engine operating angles - front up, front down, right side or left side	30°C
Lubricating oil pressure - Relief valve opens	415-470 KPA
- at maximum no load speed	276-414 KPA
Oil consumption at full load as a % of fuel consumption	0.15%

Electrical system Type	
Type	Negative ground
Alternator voltage	24 volts
Alternator output	TBD
Starter motor voltage	24 volts
Starter motor power	TBD

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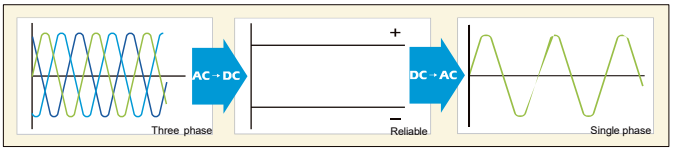
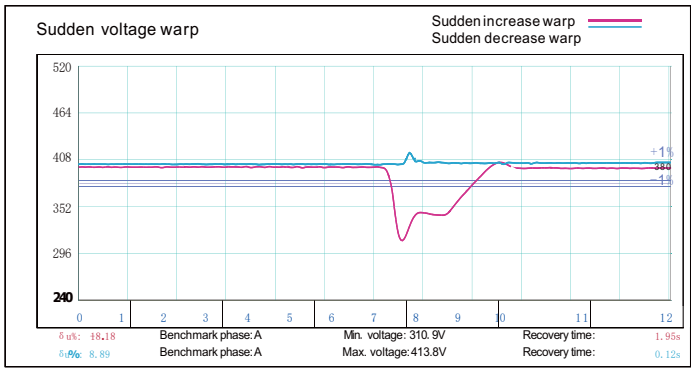
ALTERNATOR SPECIFICATION

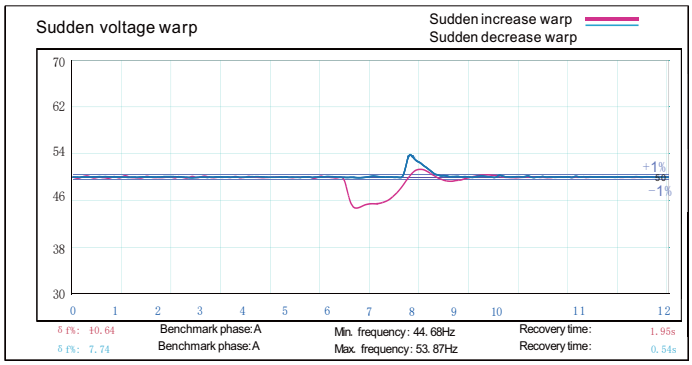
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



OPTIONS

Engine	Alternator	Generator Sets	Fuel System
• Water Jacket Pre heater • Fuel heater	• Winding Temp measuring Instrument • Alternator Pre heater • PMG • Anti-damp and anti corrosion treatment • Anti-condensation heater • Winding and bearing RTD	• Tools with the machine • Extended range fuel tank • Bunded fuel tank	• Low fuel level alarm • Automatic fuel feeding system • Fuel T-valves
Canopy	**Lub Oil System**	**Cooling System**	**Control Panel**
• Rental type Canopy • Trailer	• Oil Pre-heater • Oil temp sensor	• Front heat protection	• Remote control panel • ATS • Synchronizing controller • Adjustable earth leakage relay

Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit Comprehensive diagnostic message
- Automatic or manual start/ stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back lit. LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/ 60HZ)
- Generator measurements (50HZ/ 60HZ
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
  - Over/under voltage
  - Over-/under frequency
  - Current voltage asymmetry
  - Over current/ overload
- 3 phase AMF function
  - Over-/under frequency
  - Over-/under voltage
  - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measureme
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback andre-turn timer
- R5232 interface
- Modem communication support
- Haurs counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 ° C
- Storage temp: -30 ° C to + 80 ° C
- Operating humidity: 95% w/o condensation
- Vibration: 5-25Hz ,+- 1.6 mm
  5-1 00 Hz, a = 4g
- Shocks: a = 500m/s^2

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs

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