

# 120KW Perkins silent diesel generator[1106A-70TG1]



## KEY SPECIFICATIONS

PRIME POWER	120KW
PHASE	4
DRY WEIGHT	1700kg
LENGTH	2950mm
WIDTH	1100mm
HEIGHT	1650mm
FUEL TANK CAPACITY	>8 hours

### FEATURES & BENEFITS

- 120KW@ 60Hz Perkins engine
- High quality and reliable 6 cylinder diesel engine
- All copper brush-less generator
- With Fireproof, soundproof, rainproof canopy

- High temperature and low oil, water and fuel protection to protect against engine damage
- Easy to use 6110 digital controller with auto and manual start options
- All sets under go a comprehensive testing / before delivery inspection prior to delivery
- Peace of mind of earlier of one year/1000 hour warranty

### GENSET SPECIFICATIONS

#### ENGINE

Perkins diesel engine:1106A-70TG1  
 cylinder, water cooled  
 Electronic governor control system  
 DC starter and charge alternator  
 Replaceable fuel filter oil filter and dry element air filter  
 Cooling radiator and fan  
 Fuel connection hoses and manual sump oil drain valve  
 Exhaust silencer  
 Maintenance free battery including rack and cables  
 Perkins engine manual

#### ALTERNATOR

Full copper, brushless  
 Single bearing system, four poles  
 Insulation class H with circuit breaker protection  
 Standard degree of protection IP22  
 Self-exciting and self-regulating  
 AVR included  
 Screen protected and drip proof  
 Stator winding with 2/3 pitch for improved harmonics  
 Close voltage regulation

#### CHASSIS

Steel chassis and anti-vibration pads  
 Base frame incorporates integral fuel tank  
 The generator can be lifted or pushed/pulled by the base frame  
 Includes diesel level sensor information to the controller

#### CANOPY

Easy maintenance and operation  
 Easy lifting and moving  
 Insulated engine exhaust system  
 Exterior emergency stop push button  
 48 hours build in fuel tank

### CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

#### **AUTO MAINS FAILURE CONTROL PANEL**

6110 electronic controller  
Emergency stop push button  
Static battery charger

#### **GENERATING SET CONTROL MODULE 6110N FEATURES**

This module is used to monitor a mains supply and automatically start a standby generating set  
Microprocessor based design  
Monitors engine performance and AC power output  
LCD and LED alarm indication; GSM SMS input slot (as optional extra)  
Front panel configuration of timers and alarm trip points  
Provides signal to change over switch panel  
Event logging and shutdown alarms  
Remote communication via RS232 port or RS485 output  
Easy push button control  
STOP/RESET-MANUAL-AUTO-TEST-START  
Operation indicators accessed by the LCD display  
Scroll push button

#### **METERING VIA LCD DISPLAY**

Generator volts (L-L/L-N); mains volts (L-L/L-N)  
Generator amps (L1, L2, L3, N); generator (kVA and kW)  
Generator frequency  
Engine hours run; plant battery (volts)  
Engine oil pressure (psi and bar)  
Engine speed (rpm)  
GSM SMS signal  
Phase rotation  
Engine temperature (°C)

#### **AUTOMATIC SHUTDOWN AND FAULT CONDITIONS**

Under/over speed; fail to start  
High engine temperature; fail to stop  
Low oil pressure; charge fail  
Under/over generator volts; over current  
Under/over generator frequency; emergency stop  
Under/over mains frequency  
Under/over mains voltage  
Low/high battery volts

## 120KW Silent Diesel generator set technical parameters

Diesel generator set	GENERATOR	<b>LEROY SOMER TAL-A44-E</b>
	Model	DGS-PK120S
	Power	120KW
	Current	390.8 A )
	Rated frequency	60 ( Hz )
	Start-up time	5~6 ( S )
	Power factor	0.8
	Rated voltage	110/220(V)
Perkins Engine	Model	1106A-70TG1
	Gross Mechanical Output	123.7KW/136.9KW
	Rated speed	1800 ( r/min )
	Cycle way	4-stroke
	Cylinders	6
	Displacement	7.1 L
	Compression ratio	18.2:1
	speed control mode	ELECTRONICO
	Starting	DC
	Intake system	Naturally aspirated
	Exhaust gas temperature	≤560°C
	Maximum exhaust back pressure	100kPa
	100% Prime Power Load	< 203g/kwh
	50% Prime Power load	< 210g/kwh
	Oil capacity	16.5L
	Rated speed hydraulic	286-484kPa
	Cooling	Closed cycle water cooling
	Coolant capacity	21L
Open temperatures	380-410°C	
Maximum temperature	95°C	
Alternator	Phase	1 phase 3 wires
	Generating capacity	120KW
	Generator efficiency	95%
	Overload	10% overload can run 1h/2h
	Protection class	IP22
	Insulation class/ level rise	H/H
	Telephone influence factor THF	< 50
	Altitude	≤1000m
GENSET	Voltage setting range	≥±5%
	Transient frequency deviation	≤ - 10%
	Frequency Recovery time	≤5S
<b>Silent type</b>	Dimensions	2950 ( mm ) *1100(mm)*1650(mm)
	Weight	1700(kg)

## Package List (1 Package for 1 set only)

● With, ○ without

STANDARD ACCESSORIES	Open Type ( )	Silent Type (●)
Soft pipe for fuel and handle for lube going-out	●	●
High-efficient silencer (*2)	●	●
Cooling water tank	●	●
Exhaust elbow	●	●
Storage battery system	●	●
Steel base-frame against vibration	●	●
Sound-proof & Weather-proof Canopy (super silent type)	○	●
Single-bearing generator again drops	●	●
Intelligent LED display control panel	●	●
Operation& Maintenance manual.	●	●
Speed governor		
Electric start and 12V charger system	●	●
Standard air filter, oil filter, fuel filter	●	●
ATS	○	○
Base frame fuel tank	○	>8H

