

## E PR EM 1656/6/38

## **PERKINS Series Diesel Generator Sets**

STANDBY	kVA kW	1656 1325
PRIME	kVA kW	1505 1204





Water Cooled



60 hz



Easy maintenance



Modular type soundproof canopy



3 phase



Diesel



Warning system for decreasing fuel with electronic fuel level sender



Remote control system

Emergency Standby Power: Emergency standby power, provided by diesel generators, acts as a backup during power outages. These generators kick in swiftly during emergencies, ensuring continuity for critical operations. Ideal for homes, businesses, and industries, their usage duration should be limited to prevent wear. Strict standards like NFPA 110 ensure their reliability.

**Prime Rated Power:** Prime rated power generators serve as primary power sources, especially in remote locations. These diesel generators handle varying loads over extended periods, making them perfect for sites without grid access. Commonly mobile, they're crucial for mining, construction, and energy industries, offering consistent, prime-rated power supply.

Continuous Operation Power: Continuous operation generators offer non-stop, stable power output, especially where grid access is inconsistent or expensive. These generators operate at a consistent 100% load, making them indispensable for remote mining, military, or farming sites. Unlike prime-rated generators, they don't vary in power, ensuring unwavering power delivery.

### **QUALITY STANDARDS**

Our generators are manufactured in compliance with VDE 0530. BSE 4999 BS5000, IEC 34, EN12601; EN60204-1; TS ISO 8528-1 ... -13; EN12100-1; EN12100-2; EN61000-6-4; EN61000-6-2; EN61000-4-11; EN61000-4-6; EN61000-4-5; EN61000-4-2; EN55011; EN55016-2-1; EN55016-2-3; EN61000-3-2; EN61000-3-3; EN55014-1; EN61000-6-2; EN61000-4-3; EN61000-4-4; EN61000-4-8; EN61000-4-11; TS EN ISO 3744; TS EN ISO 3746; TS EN 60034-1; TS EN 60034-22; TS EN ISO 3046; BS 5514; NEMA MG 21; IEC 60034, BS 4999/5000 and TS EN 60947-1..4 standards.

We have ISO 9001-2015, ISO 14001-2015, ISO 45001-2018 and ISO 1002-2006 management system certificates from Kiwa, an accredited independent quality organization.

Our generators up to 400 kw are manufactured in compliance with 2000/14/EC European noise emission directive and certified from Ente Certificazione Macchine.

We also have TS ISO 8528-4, TS ISO 8528-5, TS EN 13501-1+A1:2013 flame retardancy and TTS EN ISO 9227 certificates against anti-corrosion together with CE Declaration.











Emsa reserves the right to make changes in model, technical specifications, color, equipment & accessories without prior notice.





## **Engine Specifications**

- PERKINS series heavy duty diesel engine
- 4 cycle, water cooling system, turbocharged intercooler induction
- Electronic governor system
- 12/24 volt self-starter and charger alternator
- Changeable air, fuel and oil filter
- Flexible fuel pipe

MODEL	4012-46TAG2A		
POWER	STANDBY kW	1399	
	PRIME kW	1272	
SPEED (rpm)		1800	
Cycle		4	
DISPLACEMENT (It)		45842	
NUMBER OF CYLINDERS		12 - 60° V	
BORE AND STROKE		160 x 190	
COMPRESSION RATIO		13,6 : 1	

- Oil discharge valve and extention pipe
- Industrial type silencer, exhaust spiral or compensator
- Maintenance free battery
- Engine block water heater (in automatic models)
- Diesel gen-set maintenance and operating instructions and electrical circuit diagram

GOVERNOR TYPE	Electronic			
Induction	TURBOCHARGED - INTERCOOLER			
COMBUSTION SYSTEM		DIRECT		
Cooling System		WATER		
FUEL CONSUMPTION (lt/h)	100% OF PRIME POWER	214		
	75% OF PRIME POWER	222		
	50% OF PRIME POWER	229		
TOTAL LUBRICATION SYSTEM CAPACITY (It) 177				
TOTAL COOLANT CAP	ACITY (It)	210		



# **Alternator Specifications**

- Brushless, single bearing, flexible disc 4 poles alternator for harmonic failure
- H type isolation class
- IP 21-23 protection class
- Self exciter

BRAND	-
MODEL	-
FREQUENCY (HZ)	60
POWER (KVA)	-
DESIGN	4 pole, brushless
CONNECTION TYPE	Star
VOLTAGE (V)	380

- Electronic automatic voltage regulator
- Stator 2/3 step for harmonic failure
- The alternator windings are protected by insulating varnish against oil and acid

Phase	3
A.V.R.	-
VOLTAGE REGULATION (+/-)	± 1%
INSULATION SYSTEM	Class H
PROTECTION	IP23
RATED POWER FACTOR	0.8
WEIGHT COMP. ALTERNATOR (KG)	-



## **Genset Controllers**



#### **Datakom SMART 500-MK2**

The SMART 500-MK2 is a cost effective genset controller ready for BMS integration and internet monitoring











## OPTIONAL GENSET CONTROLLERS OPTIONAL

Datakom SMART 200

Datakom D500

Datakom D500-GSM

DEEPSEA 6120

DEEPSEA 7320

ComAp AMF25













	Datakom SMART 200	Datakom SMART 500-MK2	Datakom D500	Datakom D500 GSM	DEEPSEA 6120	DEEPSEA 7320	ComAp AMF25
AUTOMATIC MAINS MONITORING	✓	✓	✓	✓	✓	1	1
MANUEL START	✓	✓	✓	✓	✓	<b>✓</b>	<b>✓</b>
REMOTE START	✓	1	1	<b>✓</b>	1	<b>✓</b>	<b>✓</b>
REMOTE MONITORING WITH SIM CARD	OPTIONAL	OPTIONAL	OPTIONAL	✓	×	OPTIONAL	OPTIONAL
1 ADITIONAL OPTION (HORN, OIL-FUEL HEATER ETC.)	×	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
LIGHT WARNING AND MIMIC DIAGRAM	✓	✓	✓	✓	✓	1	1
BATTERY CHARGER	✓	✓	✓	✓	✓	<b>✓</b>	<b>✓</b>
RS-485 COMMUNICATION	OPTIONAL	OPTIONAL	✓	✓	×	<b>✓</b>	OPTIONAL
ETHERNET (TCP-IP) COMMUNICATION	×	✓	✓	✓	×	OPTIONAL	OPTIONAL

## GENSET CONTROLLERS FOR SYNCHRONIZATION SYSTEMS OPTIONAL

Next generation synchronizing genset controller capable of every communication and functionality.

DEEPSEA 8610



DEEPSEA 8620

DEEPSEA 8660



ComAp InteliGen BaseBox



ComAp InteliGen 200















### **Container**

- Chassis parts and load-bearing construction are manufactured from 140mm NPU
- The base metal sheet is manufactured from 2/3 diamondshaped metal sheet
- Sidewall metal sheets are manufactured from 1.5mm ST 37 DKP trapezoidal metal sheet
- The top metal sheet will be manufactured from 1.5mm ST 37 DKP trapezoidal metal sheet
- Air disposing and suction parts are manufactured with the normal shutter in bolt-mounted hot-plug
- Lifting lugs are manufactured to bear the total load of the container (with generator)(8 pcs ISO Locked)
- PPG RAL 9010 paint application is followed for painting

- Internal illumination has 2x1x18 Watt waterproof fixture and 1x1x16 A monophasic plug fitting
- Top wall isolation is 0.8mm galvanised perforated metal sheet coating on 8cm fibro-glass glass wool plate
- The double-winged main door is manufactured with a pipetype locking mechanism
- Service doors are manufactured with 4 single-winged and internal panic bar mechanisms to be locked outside (These doors are designed mounted inside the container body and doorknobs do not exceed container body
- Emergency stop button on long edges
- Warning signs are placed to necessary places inside and outside the container
- · Container optional





### **External type**

#### **SILENCER OPTIONS**

- Standard industrial type
- Critical type
- Hospital type

#### **CONTAINER OPTIONS**

- Standard container
- Acoustic container

#### **GEN-SET SAFETY PROTECTION & ALARMS**

- High water temperature
- Low oil pressure
- High & low engine speed
- Low radiator water level

- Over current load
- High & low genset voltage
- Start/stop failure

#### **OPTIONAL EQUIPMENTS**

- Charge ammeter
- Moulded case circuit braker (in automatic models)
- Hospital/Critical type silencer
- Modular type sound-proof canopy
- Mobile trailer
- Synchronization control panel for 2-16 gensets

- 3 pole/4 pole automatic transfer panel (A.T.S.)
- Fuel and oil heater
- Alternator heater
- Automatic fuel filling system
- Fuel-water seperator filter
- PMG warning system









