

## PERKINS

### Technical Specifications



#### ENGINE

- PERKINS series heavy duty diesel engine
- 4 cycle, water cooled, turbocharged & air to air COOLED /turbocharged & air to water COOLED
- Direct injection
- Electronic governor system
- 24 volt self-starter and charger alternator
- Changeable air, fuel and oil filter
- Tropical type radiator
- Flexible fuel pipe
- Oil discharge valve and extension 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

#### QUALITY STANDARD

Our generators are manufactured in compliance with VDE 0530, BSE 4999 BS5000, IEC 34, TS ISO 8528, TS EN ISO 3744, TS EN ISO 3746, TS EN 60034-1, TS EN 60204-1, TS EN 60335-1, TS EN 61439-1, EN 61000, TS EN ISO12100 standards.

We have ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 and ISO10002:2006 management system certificates from Kiwa & MEYER, 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 TS EN ISO 9227 certificates against anti-corrosion together with CE Declaration.

#### ALTERNATOR

- Brushless, single bearing, flexible disc 4 poles alternator for harmonic failure
- H type isolation class
- IP 21-23 protection class
- Self exciter
- Electronic automatic voltage regulator
- Stator 2/3 step for harmonic failure
- The alternator windings are protected by insulating varnish against oil and acid.

#### EXTRA EQUIPMENTS

- Charge ammeter
- Moulded case circuit breaker (in automatic models)
- Hospital/Critical type silencer
- 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 separator filter
- PMG warning system

#### CANOPY

- Modular type sound-proof canopy
- Canopy installation executed with screw and nut, without welding process
- Epoxy and polyester powder painted canopy
- Canopy designed for easy maintenance
- Lockable doors on both sides of canopy
- Emergency stop button
- Transparent panel inspection window

#### AUTOMATIC CONTROL PANEL

- LCD display screen
- Hardware and materials needed
- Battery charger
- USB port & RS-485 output

#### GEN-SET SAFETY PROTECTION & ALARMS

- High water temperature
- Over current load
- Low oil pressure
- High & low genset voltage
- High & low engine speed
- Start/stop failure
- Low radiator water level



Easy maintenance canopy design



Refilling from the outside of the canopy



Canopy made of galvanized steel



Warning system for decreasing fuel with electronic fuel level sender



# PERKINS Series

## Diesel Generator Sets

### PERKINS Series Diesel Generator Sets 1500-2500 kVA

MODEL				E PR XX 1500	E PR XX 1656	E PR XX 1880	E PR XX 2028	E PR XX 2264	E PR XX 2500
GROUP	GEN-SET POWER	STAND BY	kVA	1500	1656	1880	2028	2264	2500
			kW	1200	1325	1504	1622	1811,2	2000
		PRIME	kVA	1350	1505	1710	1844	2058	2250
			kW	1080	1204	1368	1476	1646,4	1800
	CANOPY DIMENSION (W x L x H) mm			2438x7000x3620	2438x7000x3620	2438x7000x3620	2550x9000x4580	2550x9000x4580	2550x9000x4580
	CANOPY WEIGHT kg			20282	20282	21318	23284	24488,2	25010
	OPEN DIMENSION (W x L x H) mm			2090x4800x2375	2090x4800x2375	2090x4800x2375	2240x5850x2900	2240x5850x2900	2240x5850x2900
	OPEN WEIGHT			13434	13434	14470	14474	15678,2	16200
ENGINE	BRAND			PERKINS	PERKINS	PERKINS	PERKINS	PERKINS	PERKINS
	TYPE			4012-46TAG2A	4012-46TAG2A	4012-46TAG3A	4016-TAG1A	4016-TAG2A	4016-61TRG3
	POWER	STAND BY	kW	1395	1395	1583	1690	1886	2083
		PRIME	kW	1267	1267	1440	1537	1715	1875
	SPEED (rpm)			1500	1500	1500	1500	1500	1500
	CYCLE			4	4	4	4	4	4
	DISPLACEMENT (lt)			45,842	45,842	45,842	61,123	61,123	61,123
	NUMBER OF CYLINDERS			12 - 60° V	12 - 60° V	12 - 60° V	16 - 60° V	16 - 60° V	16 - 60° V
	BORE x STROKE (mm x mm)			160 x 190	160 x 190	160 x 190	160 x 190	160 x 190	160 x 190
	COMPRESSION RATIO			13,6 : 1	13,6 : 1	13,6 : 1	13,6 : 1	13,6 : 1	13,6 : 1
	GOVERNOR TYPE			ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC
	INDUCTION			TURBOCHARGED - AIR TO AIR COOLED	TURBOCHARGED - AIR TO AIR COOLED	TURBOCHARGED - AIR TO AIR COOLED	TURBOCHARGED - AIR TO AIR COOLED	TURBOCHARGED - AIR TO AIR COOLED	TURBOCHARGED - AIR TO WATER COOLED
	COMBUSTION SYSTEM			DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
	COOLING SYSTEM			WATER	WATER	WATER	WATER	WATER	WATER
	FUEL CONSUMPTION lt / h	%100 PRIME POWER		301	301	370	383	434	470
		%75 PRIME POWER		237	237	275	277	327	344
%50 PRIME POWER		162	162	187	185	222	234		
TOTAL LUBRICATION SYSTEM CAPACITY (lt)			177	177	177	237,2	237,2	237,2	
TOTAL COOLANT CAPACITY (lt)			210	210	210	316	316	270	
FUEL TANK CAPACITY (lt)			2500	2500	3000	3000	4000	4000	

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