

## RICARDO

### Technical Specifications



#### ENGINE

- RICARDO series heavy duty diesel engine
- 4 cycle, water cooled, turbocharged & air to air charge cooled /turbocharged & air to water charge 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



# RICARDO Series

## Diesel Generator Sets

### RICARDO Series Diesel Generator Sets 35-70 kVA

MODEL				E RC XX 0035	E RC XX 0050	E RC XX 0070
GROUP	GEN-SET POWER	STAND BY	kVA	35	50	70
			kW	28	40	56
		PRIME	kVA	32	45	65
			kW	25,6	36	52
	CANOPY DIMENSION (W x L x H) mm			1000x2300x1420	1000x2300x1420	1000x2600x1410
	CANOPY WEIGHT kg			957	982	1202
	OPEN DIMENSION (W x L x H) mm			1000x1900x1420	1000x1900x1420	1000x2200x1410
	OPEN WEIGHT			782	807	1005
ENGINE	BRAND			RICARDO	RICARDO	RICARDO
	TYPE			K4100DS	K4100ZDS	N4105ZDS
	POWER	STAND BY	kW	33	47	62
		PRIME	kW	30	42	56
	SPEED (rpm)			1500	1500	1500
	CYCLE			4	4	4
	DISPLACEMENT (lt)			3,61	3,61	4,15
	NUMBER OF CYLINDERS			4 IN LINE	4 IN LINE	4 IN LINE
	BORE x STROKE (mm x mm)			100x115	100x115	105x120
	COMPRESSION RATIO			19 : 1	19 : 1	17 : 1
	GOVERNOR TYPE			ELECTRONIC	ELECTRONIC	ELECTRONIC
	INDUCTION			NATURAL	TURBOCHARGED	TURBOCHARGED
	COMBUSTION SYSTEM			DIRECT	DIRECT	DIRECT
	COOLING SYSTEM			WATER	WATER	WATER
	FUEL CONSUMPTION lt / h	%100 PRIME POWER		9,1	12,4	14,8
		%75 PRIME POWER		6,8	9,3	11,1
		%50 PRIME POWER		4,6	6,2	7,4
TOTAL LUBRICATION SYSTEM CAPACITY (lt)			13	13	13	
TOTAL COOLANT CAPACITY (lt)			13	13	13	
FUEL TANK CAPACITY (lt)			101	101	139	

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