

# KIRLOSKAR DIESEL ENGINES

## Engine Model : 2R1040

No. of	Bore x Stroke	Displacement (cc)	Gross Power Output Rating as per ISO3046 at 1500 RPM bhp (kW)		Suitable Power Rating for Generator at 0.8 pf	
Cyls.	(mm)		Prime	Standby	Prime	Standby
2	105 x 120	2080	27 bhp (19.87 kW)	29.7 bhp (21.8 kW)	20 kVA	22 kVA

## <u> Features –</u>

- Designed for heavy duty applications
- Extremely reliable
- All service points like dipstick, lube oil filling, lube oil filter, fuel pump, injectors are on one side which is the cooler side. This adds to operator comfort.
- Lower operating cost
- Easy maintenance higher uptime
- Superior design standards that minimize power deration even at high ambient temperatures.
- Winner of the frost & Sullivan Voice of Customer Award in the "Best Bang for Buck" category in the Indian Generating sets Market.

#### Ratings Definition:

**Standby Ratings**: These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3)

**Prime Rating**: These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercial purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

**Continuous Rating**: These ratings are applicable for supplying power continuously to a constant load upto the full output rating for unlimited hours. No sustained overload capability is available for this rating.



# Engine Technical Data :

Physical Data				
Engine Make	Kirloskar			
Engine Model	2R1040			
Number of cylinders	2			
Configuration	Inline			
Туре	Four stroke			
Bore x Stroke (mm)	105 x 120			
Displacement (cc)	2080			
Cooling	Water cooled			
Aspiration	Naturally Aspirated			
Compression Ratio	18 : 1			
Starting Arrangement	12V Electric			

Fuel System				
Type of fuel filter	Two stage spin on type			
Governor Type	Mechanical			
Class of Governing	ISO 3046 Class A1 & ISO 8528-5, Class G2			
Fuel pump type	Inline			
Fuel pump make	Mico Bosch			
Recommended Fuel	Class A2, High speed diesel			
Fuel consumption at 100% load +5% tolerance (lit/hr)	5.44			
Fuel consumption at 75% load +5% tolerance (lit/hr)	4.08			
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)				

Air System			
Air Filter Type	Dry type replaceable element		
Air Volume required for Ventilation (m <sup>3</sup> /hr)	2943		
Combustion air flow (m³/hr)	94		
Total Air Flow required for ventilation (m <sup>3</sup> /hr)	3195		
Total Fresh air required (m³/hr)	4426		

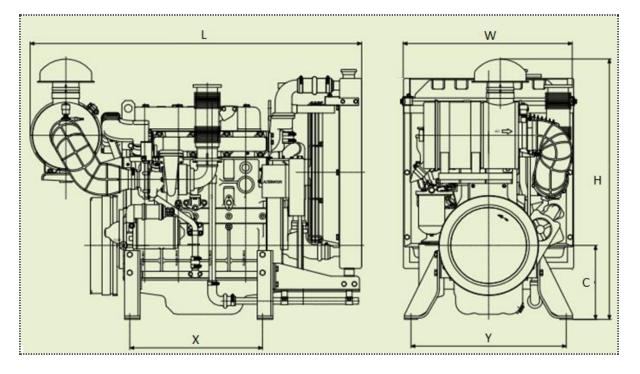
Lubrication System				
Type of lube oil filter	Full flow spin on type			
Oil to be used	Multi grade 15W40			
Oil pump type	Through G-rotor gear pump			
Lub oil sump capacity (lit)	7			
Lube oil consumption	0.3% of fuel consumption			

Cooling System				
Cooling system capacity (lit)	10			
Water pump type	Centrifugal			
Radiator fan load (hp)	2			

Electrical System				
Starting Arrangement	12V Electric			
Starter	12V Electric			
Starter Battery Rating	88 Amp-hr			
Battery charging alternator	Engine mounted 12V battery charger			
Battery charger amps	35			



## **Engine Dimensional Details :**



Dimensions in mm						
L	W	Н	С	х	Y	
936	760	875	285	335*	600	

Weight Details			Coupling	
Engine weight without radiator	460 / 360	Flywheel	Suitable for SAE 11.5" disc	
Gross / Net (kg)		Housing	SAE2	
Radiator and accessories weight40 / 25Gross / Net (kg)40 / 25		Coupling disc	Not supplied	

(\* Please refer to the respective rating GA drawing)

## **KIRLOSKAR OIL ENGINES LIMITED**

Head Office: Laxmanrao Kirloskar Road, Khadki, Pune 411 003, India. Tel.: +91 20 2581 0341 / 534 Fax: +91 20 2581 3208 Website : <u>www.koel.co.in</u>

## **KIRLOSKAR DMCC**

JBC-5, Cluster W, Jumeirah Lake Towers, P.O.Box 37745, Dubai. U.A.E Tel.: +971 4 443 8591 Fax: +971 4 441 4532 Email: <u>enquiry@kirloskar.ae</u> Website : <u>www.kirloskar.ae</u>

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