



Enriching Lives

## KIRLOSKAR OIL ENGINES LIMITED

A Kirloskar Group Company

### G DRIVE DIESEL ENGINES

Model		3R1040TA
Standby Power (ESP)	hp / kWm	68.2 / 50.2
Prime Power (PRP)	hp / kWm	62 / 45.63
Suitable for Standby Power (ESP)	kVA / kWe	49.5 / 39.6
Suitable for Prime Power (PRP)	kVA / kWe	45 / 36
RPM		1800

Ratings are gross as per ISO3046 and ISO8528-1; refer page 3 for definitions. Assumed power factor is 0.8.



### Liquid Cooled

Note: Above picture shown for illustration purpose only, actual product may be different.



# Engine Specifications

Physical Data		Air System	
Engine rpm	1800	Air filter type	Dry replaceable
Cylinders / Configuration	3 / Inline	Air volume required for combustion (m <sup>3</sup> /hr)	187
Type	Four stroke	Air volume required for cooling (m <sup>3</sup> /hr)	9300
Bore x Stroke (mm)	105 x 120		
Displacement (L)	3.12		
Cooling	Liquid cooled		
Aspiration	Turbocharged after cooled		
Compression ratio	18 : 1		
Piston speed (m/s)	7.2		
Fuel consumption Prime power output (L/h) <sup>1</sup>	50%	5.9	
	75%	8.1	
	100%	10.6	
	110%	11.9	
		Cooling System	
		Cooling package	Radiator cooled
		Coolant type	Ethylene glycol based premixed with water in ratio 50:50, antifreeze & anti corrosion type
		Radiator fan load (hp)	3
		Cooling system capacity (L)	12

Fuel System		Exhaust System	
Type of fuel filter	Two stage spin on type	Exhaust gas flow rate (kg/hr)	TBA
Governor type	Mechanical	Maximum exhaust gas temperature (°C)	550
Class of governing	ISO 8528-5, Class G2	Max. allowed back pressure (mm of Hg)	50
Recommended Fuel	Class A2, High speed diesel		
Fuel solenoid	Energized to stop		

Electrical System		Lubrication System	
Starting arrangement	12V Electric	Type of lube oil filter	Full flow spin on type
Recommended Starter battery capacity	110Ah	Oil to be used	SAE 15W40 API:CI4
Battery charging alternator	Engine mounted 12V	Oil pump type	Through G-rotor gear pump
Battery charging alternator	35A	Lube oil sump capacity (L) refill / first fill	7.5 / 9
		Lube oil consumption	0.3% of fuel consumption

1. +5% production tolerance is applicable as per ISO3046. Fuel consumption is based on diesel fuel with a specific gravity of 0.85 and conforming to BS 2869, Class A2) and standard alternator efficiency. The fuel consumption may vary depending upon the alternator efficiency.



## Standard and Optional Features

Standard <sup>2</sup>	Optional
Diesel engine with radiator	Lube oil drain pump
SAE3 housing adaptor	Water separator
SAE11.5 flywheel	Engine wiring harness
Pusher type fan	Sensor mating connector kit
Engine mounted fuel filter	Jacket water heater
Engine mounted oil filter	Exhaust bellow
Engine mounted air cleaner	Silencer
Rotating parts guard	SMF Battery
Starter motor	4 to 20mA oil pressure sensor
Battery charging alternator	Interface card for 4 to 20mA oil pressure sensor
Oil pressure sensor	
Coolant temperature sensor	
Low coolant level switch	
500hours service interval	
Stop solenoid	

2. Feature and scope of supply may vary please check with KOEL nearest office for the offered scope of supply.

### Ratings definitions as per ISO8528:

(De-rating is applicable for climatic conditions other than standard reference conditions of ISO8528-1)

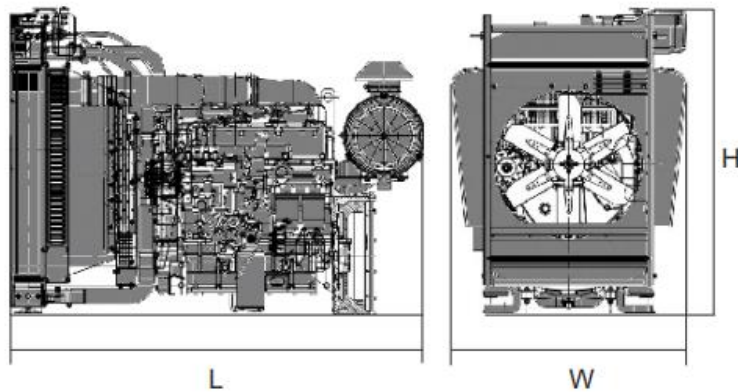
**Standby Rating / Emergency Standby power / ESP:** These ratings are applicable for supplying electrical power at variable load in the event of a utility power failure. The standby power is maximum power available with no overload permitted on these ratings. The permissible average power output over 24 hours of operation shall not exceed 70% of the ESP. The alternator on this model is peak continuous rated (as defined in ISO 8528-3)

**Prime Rating / PRP:** 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. The permissible average power output over 24 hours of operation shall not exceed 70% of the PRP.

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

## Weight & Dimensions

		With radiator	
Overall dimensions <sup>3</sup>	Length x Width x Height	mm	1134 x 788 x 898
Weight <sup>4</sup>	Gross	kg	540
	Net	kg	405



3. Dimensions are for logistics purpose only. Please refer installation / GA drawing for installation.  
 4. Weight mentioned is indicative only. Actual weight may vary based on configuration.

## KIRLOSKAR OIL ENGINES LIMITED

A Kirloskar Group Company

Head Office: Laxmanrao Kirloskar Road, Khadki, Pune 411 003, India.

Tel.: +91 20 2581 0341 / 534 Fax: +91 20 2581 3208 Website: [www.koel.co.in](http://www.koel.co.in)

### International business office:

#### 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: [enquiry@kirloskar.ae](mailto:enquiry@kirloskar.ae)  
 Website: [www.kirloskarib.com](http://www.kirloskarib.com)

#### KIRLOSKAR KENYA LTD.

P.O. Box 60061, Off Dunga Road, Nairobi,  
 Kenya. Tel.: +254 20 653 6632  
 Fax: +254 20 653 3390  
 Email: [rspatil@kirloskar.co.ke](mailto:rspatil@kirloskar.co.ke)

#### THE REP. OFFICE OF KIRLOSKAR

Suite 1331A, 13th Floor, Level One Saigon,  
 mPlaza Saigon,  
 No. 39 Le Duan Street, Ben Nghe Ward,  
 District 1, Ho Chi Minh City,  
 Vietnam Tel.: +84 77 9659756  
 Email: [Sanjay.Kunchetti@kirloskar.com](mailto:Sanjay.Kunchetti@kirloskar.com)

#### KIRLOSKAR TRADING SA(PTY) LTD

Unit B1, The Stables Business Park, Cnr of  
 Third Avenue & Second Road, Limbro Park,  
 Modderfontein, Johannesburg.  
 Tel.: +27(0) 11 553 6900/6903  
 Email: [kirsons@kirloskar.co.za](mailto:kirsons@kirloskar.co.za)

#### KIRLOSKAR AMERICAS CORPORATION

33300 Egypt Lane, Suite C300, Magnolia,  
 TEXAS – 77354, United States  
 Tel.: +1 346 248 5777  
 Email: [Vinay.Kulkarni@koelamerica.com](mailto:Vinay.Kulkarni@koelamerica.com)

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