

KIRLOSKAR OIL ENGINES LIMITED

A Kirloskar Group Company

G DRIVE DIESEL ENGINES

Model		DV16ETAG1
Standby Power (ESP)	hp / kWm	1331 / 979.6
Prime Power (PRP)	hp / kWm	1210 / 890.6
Suitable for Standby Power (ESP)	kVA / kWe	1111 / 888.8
Suitable for Prime Power (PRP)	kVA / kWe	1010 / 808
RPM		1800

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



Liquid Cooled

Engine Specifications



Physical Data			
Engine rpm		1800	
Cylinders / Configuration		16 / V	
Туре		Four stroke	
Bore x Stroke (mm)		130 x 150	
Displacement (L)		31.86	
Cooling		Liquid cooled	
Aspiration		Turbocharged aftercooled	
Compression ratio			
Piston speed (m/s)		9.0	
	50%	121	
Fuel consumption	75%	165	
Prime power output (L/h) ¹	100%	218	
	110%	244	

Air System	
Air filter type	Dry replaceable
Air volume required for combustion (m³/hr)	ТВА
Air volume required for cooling (m³/hr)	ТВА

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)	42	
Cooling system capacity (L)	180	

Fuel System		
Type of fuel filter	Two stage spin on type	
Governor type	Electronic	
Class of governing	ISO 8528-5, Class G2	
Recommended Fuel	Class A2, High speed diesel	
Fuel supply	Energized to run	

Exhaust System		
Exhaust gas flow rate (kg/hr)	TBA	
Maximum exhaust gas temperature (°C)	580	
Max. allowed back pressure (mm of Hg)	50	

Electrical System	
Starting arrangement	24V Electric
Recommended Starter battery capacity	4 x 200Ah
Battery charging alternator	
Battery charger	24V DC 10A / 15A

Lubrication System		
Type of lube oil filter	Full flow spin on type	
Oil to be used	SAE 15W40 API:CI4	
Oil pump type	Through G-rotor gear pump	
Lube oil sump capacity (L) refill / first fill	126 / 130	
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 confirming to BS 2869, Class A2) and standard alternator efficiency. The fuel consumption may vary depending upon the alternator efficiency.



Standard and Optional Features

Standard ²	Optional
Diesel engine with radiator	Lube oil drain pump
SAE0 housing adaptor	Water separator
SAE14 flywheel	Sensor mating connector kit
Pusher type fan	Jacket water heater
Engine mounted fuel filter	Exhaust bellow
Engine mounted oil filter	Silencer
Air cleaner	SMF Battery
Rotating parts guard	
Starter motor	
Battery charger	
Oil pressure sensor	
Coolant temperature sensor	
Low coolant level switch	
Instrument panel	
Electronic governor	
Engine wiring harness	

^{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)

<u>Prime Rating / PRP:</u> 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.

<u>Continuous Rating / COP:</u> 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 ³	Length x Width x Height	mm	3465 x 2056 x 2140
Weight⁴	Gross	kg	5610
	Net	kg	4970

- 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.

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