



**CUMMINS INC.**  
Charleston, SC 29405  
Marine Performance Curves

Basic Engine Model:  
**K38-DM**

Engine Configuration:  
**D233038MX02**

Curve Number:  
**DM-6883**

CPL Code:  
**3764**

Date:  
**12-Oct-11**

Displacement: **38 liter [2309 in<sup>3</sup>]**  
Bore: **159 mm [6.26 in]**  
Stroke: **159 mm [6.25 in]**  
Fuel System: **Direct Injection Cummins STC**  
Cylinders: **12**

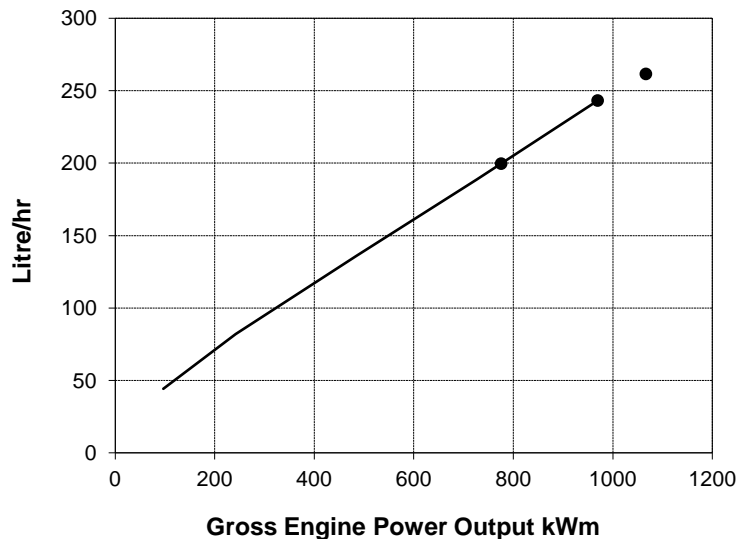
Advertised Power: **970[1300]@1800**  
kW [hp] @ rpm  
Aspiration: **Turbocharged/Aftercooled**  
Exhaust Type: **Dry**

CERTIFIED: This marine diesel engine complies with or is certified to the:  
IMO Tier II (Two) NOx requirements of International Maritime Organization (IMO), MARPOL 73/78 Annex VI, Regulation 13

Engine Speed	Overload Capacity		Prime Power		Continuous Power	
RPM	kWm	BHP	kWm	BHP	kWm	BHP
1800	1066	1430	970	1300	776	1040

### Engine Performance Data @ 1800 rpm

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/kWh	Lb/ BHP- h	Liter/ hour	U.S. Gal/ hour
<b>10% OVERLOAD CAPACITY</b>						
110%	1066	1430	0.208	0.343	261.6	69.1
<b>PRIME POWER</b>						
100%	970	1300	0.213	0.351	243.2	64.2
75%	727	975	0.221	0.363	188.9	49.9
50%	485	650	0.239	0.393	136.1	35.9
25%	242	325	0.287	0.473	81.9	21.6
10%	97	130	0.388	0.638	44.2	11.7
<b>CONTINUOUS POWER</b>						
80%	776	1040	0.219	0.360	199.6	52.7



**Rating Conditions:** Ratings are in accordance with ISO 15550 and ISO 8528-5 reference conditions; air pressure at 100 kPa (29.61 in Hg), air temperature 25°C (77°F), and 30% relative humidity. The fuel consumption data is based on No. 2 diesel fuel weight at 0.85 kg/liter (7.0011 lb/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump, and lubricating oil pump; not included are battery charging alternator, fan, optional equipment, and driven components.

Unless otherwise specified, tolerance on all values is +/-5%.

**Prime Power Rating** is applicable for supplying continual electrical power at varied load. The following are the Prime Rating parameters:

- \* Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours.
- \* The total operating time at 100% Prime Power shall not exceed 500 hours per year.
- \* There is a 10% overload capability for a period of 1 hour within a 12 hour period of operation. Total operating time at 10% overload shall not exceed 25 hours per year.

TECHNICAL DATA DEPT.

CHIEF ENGINEER