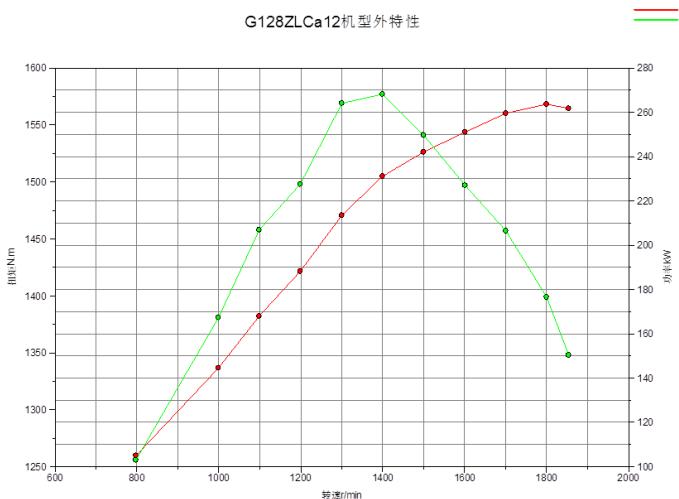


Shanghai Diesel Engine Co., Ltd.

 SDEC	SDEC SPECIFICATIONS for Marine Engine	Engine model																																																												
		G128ZLCA12																																																												
		Order No																																																												
		G0176																																																												
Displacement	12.88L	Rated power/speed																																																												
Bore	135mm	Overload power/speed																																																												
Stroke	150mm	Oceangoing rated power/speed																																																												
Cylinder No.	6	Oceangoing overload power/speed																																																												
Fuel system	mechanical	Type																																																												
Cert:	CCS, IMO Tier II	Turbocharged&intercooled																																																												
<p style="text-align: center;">G128ZLCA12机型外特性</p>  <table border="1"> <caption>Data points estimated from the performance curves</caption> <thead> <tr> <th>RPM (转速/min)</th> <th>External Characteristic (N.m)</th> <th>External Characteristic (kW)</th> <th>Propelling Characteristic (N.m)</th> <th>Propelling Characteristic (kW)</th> </tr> </thead> <tbody> <tr><td>800</td><td>1250</td><td>120</td><td>1250</td><td>120</td></tr> <tr><td>1000</td><td>1380</td><td>160</td><td>1380</td><td>160</td></tr> <tr><td>1100</td><td>1450</td><td>180</td><td>1450</td><td>180</td></tr> <tr><td>1200</td><td>1500</td><td>200</td><td>1500</td><td>200</td></tr> <tr><td>1300</td><td>1550</td><td>220</td><td>1550</td><td>220</td></tr> <tr><td>1400</td><td>1600</td><td>240</td><td>1600</td><td>240</td></tr> <tr><td>1500</td><td>1550</td><td>220</td><td>1550</td><td>220</td></tr> <tr><td>1600</td><td>1500</td><td>200</td><td>1500</td><td>200</td></tr> <tr><td>1700</td><td>1450</td><td>180</td><td>1450</td><td>180</td></tr> <tr><td>1800</td><td>1400</td><td>160</td><td>1400</td><td>160</td></tr> <tr><td>1900</td><td>1350</td><td>140</td><td>1350</td><td>140</td></tr> </tbody> </table>	RPM (转速/min)	External Characteristic (N.m)	External Characteristic (kW)	Propelling Characteristic (N.m)	Propelling Characteristic (kW)	800	1250	120	1250	120	1000	1380	160	1380	160	1100	1450	180	1450	180	1200	1500	200	1500	200	1300	1550	220	1550	220	1400	1600	240	1600	240	1500	1550	220	1550	220	1600	1500	200	1500	200	1700	1450	180	1450	180	1800	1400	160	1400	160	1900	1350	140	1350	140		
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external characteristic curve		propelling characteristic curve																																																												
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r/min	kW	N. m	r/min	kW	N. m	g/kW.h																																																								
1854	1348	261.7	1854	259.6	1337	222.7																																																								
1800	1399	263.6	1800	236	1252	219.1																																																								
1701	1457	259.5	1737	212.4	1168	215.7																																																								
1601	1497	251	1634	177	1034	215.1																																																								
1500	1541	242	1429	118	788	210.1																																																								
1400	1577	231.1	1134	59	497	223.5																																																								
1300	1569	213.5																																																												
1199	1498	188.2																																																												
1099	1458	167.9																																																												
999	1381	144.5																																																												
798	1256	105																																																												

remark:

★The measurement of rated power&speed is according to standard reference condition under ISO 8665 (atmospheric pressure 100kpa, ambient temperature 25°C, Relative humidity 30%, intercooler inlet temperature 25°C), without any accessories, the guaranteed max power after running-in

★The measurement of oceangoing power&speed is according to specified environmental condition under IACS (atmospheric pressure 100kpa, ambient temperature 25°C, Relative humidity 60%, intercooler inlet temperature 32°C), without any accessories, the guaranteed max power after running-in

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★Power tolerance: the max tolerance between rated power or overload power should not above 5%

General specification

Engine model.....	G128ZLCa12
Usage.....	Marine Propulsion
Type.....	Turbocharged&Intercooled
Rated Power/Speed.....kW/r/min	236/1800
Overload power/speed.....kW/r/min	260/1854
Oceangoing rated power/speed.....kW/r/min	227/1800
Oceangoing overload power/speed.....kW/r/min	250/1854
Max torque @1000r/min.....N. m	1526/1300
Max unload stable speed.....r/min	1980
max output power of crankshaft front end.....	35%
Compression Ratio.....	15.5:1
Average piston speed.....m/s	9
Ignition Order.....	1-5-3-6-2-4
Net Weight.....kg	1350
Speed Governing Rate.....%	≤10
min unload speed.....r/min	≤675±25
Fuel system.....	mechanical pump, dual walled fuel pipe
advance angle of injection.....° CA	14.5±0.5
max temp of inlet fuel.....°C	50
Max fuel inlet flow.....°C	2.0
Max temp of return fuel.....°C	80
Max fuel return flow.....L/min	2.0
Air intake pressure.....kpa	158.2
Air intake flow.....kg/h	2008.2
Exhaust flow.....kg/h	2066.6
Exhaust temp.....°C	≤560
Cooling system.....	seawater-fresh water double system
open temp of thermostat.....°C	77
full-open temp of thermostat.....°C	90
Crankshaft Rotation.....	Anticlockwise (From flywheel)
Oversize(L×W×H).....mm	1680×884×1550
Max allowable air inlet restriction.....kpa	5
Max allowable air outlet restriction.....kpa	8
oil pan capacity.....L	22~30
declared working condition oil pressure.....MPa	0.2~0.5
infeed.....°	15
Incline& trim.....°	5
swing rolling.....°	22.5
pitch.....°	7.5

★power output interface

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flywheel house: SAE1# 12×M12 depth 18mm bore 25mm

flywheel: SAE14# 12×M10 depth 20mm bore 27mm

belt pulley: 6groove B type, with flange

★seawater pump

transmission: 2.11

self-suction=2m;

rpm n=2800rpm, flow Q≥20m³/h,

lift H=15m;

★alternator

rated power 1000W

rated voltage 28V

rated speed 6000r/min

rated current 36A

connection mode: double

★starter

rated power: 9kW

rotation direction: clockwise(from drive end)

rated voltage: 24V

connection mode: double

★instrument system

low oil pressure alarm value: 0.12MPa

over speed alarm value:115% rated speed

Low oil pressure stop value: 0.10MPa

over speed stop value:120% rated speed

High water temp alarm value

High oil temp alarm value

Electromagnet: DC24V, N.O type

★detail connection size as per outline drawing