

Engine Specification Sheet



Model	Ratings HP (kW) @ Rated speed rpm	
	2950	
CH6-110-EB (UL)	153 (114)	
CH6-110-EB (FM)	148 (110)	

ENGINE SPECIFICATIONS		
Type	4 Cycle; In-line; water cooled; 6 Cylinder	
Aspiration	Naturally	
Bore and Stroke	mm×mm	110x125
Displacement	L	7.127
Compression Ratio	17:1	
Combustion System	Direct Injection	
Rotation Viewed from flywheel	Counter Clockwise	
Dry Weight Approx.	kg	780
Dimension Approx. (L*W*H)	mm	1565*866*1245
Crankshaft Centerline Height	mm	400
Oil Capacity	L	12
Coolant Capacity - Engine + Heat Exchanger	L	25



MODEL
CH6-110-EB

Engine Equipment	Standard	Optional	
Air Cleaner	Drip proof	N/A	
Alternator	24V-DC, 45 Amps with Belt Guard	N/A	
Coupling	Bare Flywheel	N/A	
Engine Heater	220V-AC	110V-AC	
Exhaust Flex Connection	DN65	N/A	
Exhaust Protection	Metal Guard	N/A	
Flywheel Housing	SAE 3	N/A	
Flywheel Power Take Off	SAE 11.5	N/A	
Fuel Connections	Flexible hoses according ISO 15540	N/A	
Fuel Filter	Full flow, cartridge type	N/A	
Governor, Speed	Constant speed, mechanical	N/A	
Heat Exchanger	Shell and Tube Type	N/A	
Instrument Panel	Build on Engine	N/A	
Junction Box	Integrated in control panel	N/A	
Lube Oil Cooler	Jacket Water Cooled	N/A	
Lube Oil Filter	Full flow, cartridge type	N/A	
Lube Oil Pump	Gear Driven, Gear Type	N/A	
Manual Start Control	Dual Manual Start Contactors	N/A	
Overspeed Control	Electronic instrument panel, test on instrument panel	N/A	
Raw Water Cooling Loop w/ Alarms	Galvanized	Seawater (All 316 SS)	
Raw Water Solenoid Operation	Automatic from Fire Pump Controller and from Engine Instrument Panel (for Horizontal Fire Pump Applications)	N/A	
Run - Stop Control	On Instrument Panel with Control Position Warning Light	N/A	
Starters	24V-DC, 6.2KW	N/A	
Throttle Control	Adjustable speed control	N/A	
Water Pump	Centrifugal Type, Gear Driven	N/A	
All data is based on the engine operating with fuel system, lubricating oil pump, air cleaner, and alternator; not included are compressor, fan, optional equipment, and driven components.;Data is based on operation at SAE standard J1394 conditions of 300ft (91,4m) altitude, 29.61 in.(752mm) Hg dry barometer, and 77°F (25°C) intake air temperature, using 0# diesel fuel follow the standard GB 252-2011.			
Altitude above which output should be Limited		m (ft.)	91 (300)
Correction Factor per 305m.(1,000ft.) above Altitude Limit		3%	
Temperature above which output should be Limited		°C (°F)	25 (77)
Correction Factor per 5.6°C (10°F) above Temperature Limit		1%	
Remark:			
1.All data certified within 5%;			
2.TBD - To Be Determined;			
3.N/A - Not Applicable;			



Engine Data Sheet

Engine Model	CH6-110-EB	Date	2021/12/30
Drawing No.	CH6-110-EB.00	Performance Curve No.	C06110B
Rated Power	153 HP @ 2950 RPM	Reference No.	14DS001E
	114 KW @ 2950 RPM	Version	B

GENERAL ENGINE DATA			
Type	4 Cycle; In-line; water cooled; 6 Cylinder		
Aspiration	Naturally		
Bore and Stroke	mm×mm	110x125	
Cylinder Liner Type	<input checked="" type="checkbox"/> Wet <input type="checkbox"/> Dry		
Displacement	L	7.127	
Compression Ratio	17:01		
Firing Order	1-5-3-6-2-4		
Combustion System	Direct Injection		
Rotation Viewed from front of engine	CW		
Valves Per Cylinder	Intake :1 Exhaust :1		
Valves lashes at cold	Intake	mm	0.5
	Exhaust	mm	0.5
Ignition Type	Compression(Diesel)		
Charge Air Cooling Type	Raw Water		
Dry Weight Approx.	kg	780	
Dimension Approx. (L*W*H)	mm	1565*866*1245	
Flywheel/ Flywheel House Dimension	11.5"/ SAE 3		
Torque at rated RPM	N.m	368	

EXHAUST SYSTEM			
Exhaust Gas Temp. at max. rating/power	°C	≤ 700	
Exhaust Gas Flow at Max. output	kg/h	1085	
Max. Allowable Back Pressure	kpa	10	
Minimum Exhaust Pipe Diameter	DN	65	

AIR INTAKE SYSTEM			
Air Cleaner Type	Dry Type, Disposable		
Air Flow	kg/h	1052	
Air Inlet Restriction Dirty	kpa	6	
Air Inlet Restriction Clean	kpa	3	

LUBRICATION SYSTEM			
Oil Capacity	L	12	
Max. Sump Oil Temp.	°C	120	
Normal Operating Oil Pressure Range	bars	3.4~4.9	
Oil Pressure at Idle	bar	>0.98	

COOLING SYSTEM			
Coolant Capacity - Engine + Heat Exchanger	L	25	
Thermostat Range	Start Open	°C	76
	Full Open	°C	86
Coolant Pressure Cap	bar	0.9	
Max. Engine Coolant Temp.	°C	98	
Engine Coolant Flow at Full Load	m ³ /h	16	
Raw Water Cooling Capacity	m ³ /h	8	



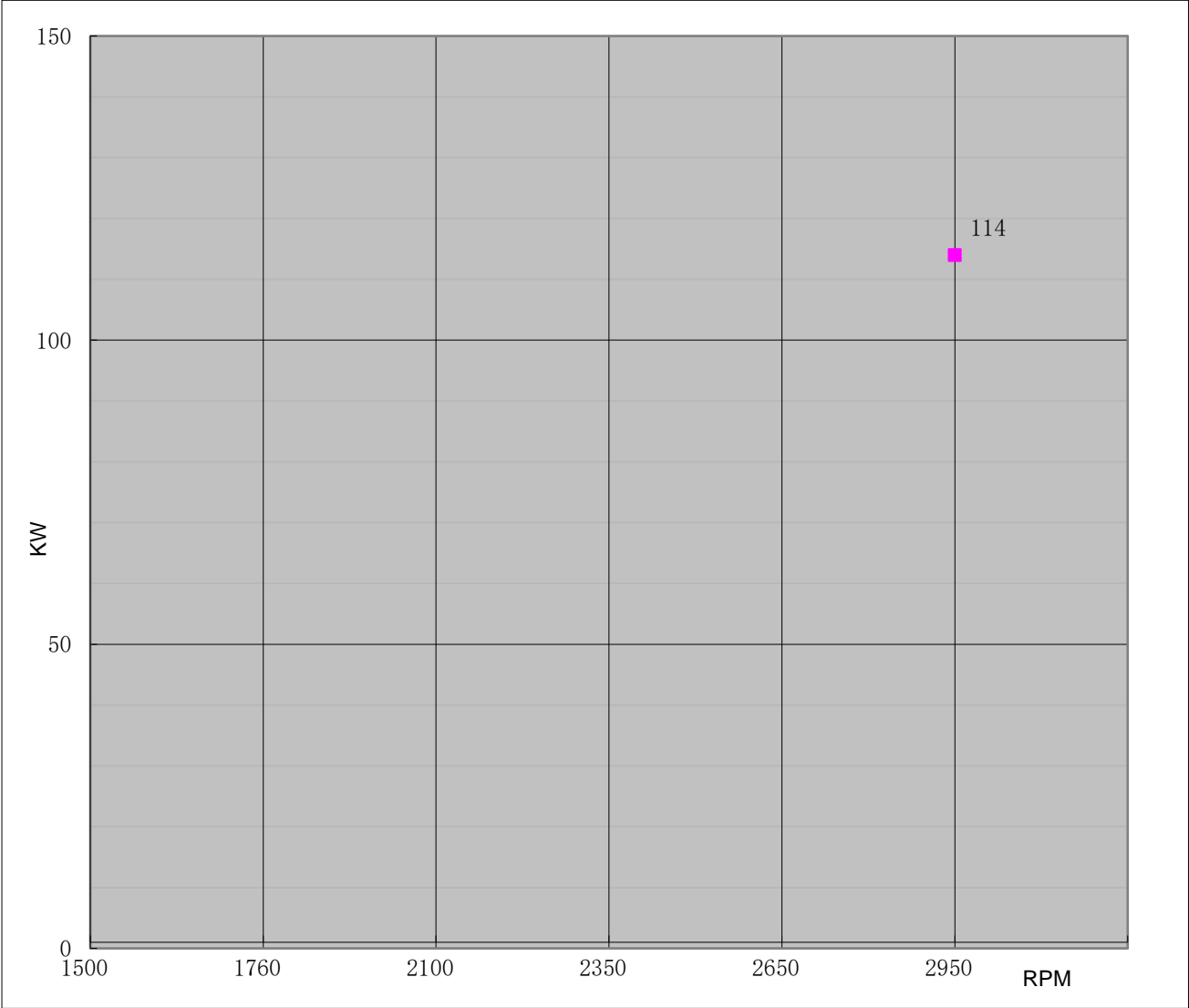
Engine Data Sheet

Raw Water Pressure		bar	2
Min. Raw Water Temp.		°C	15.6
Raw Water Pipe Size	Raw Water Inlet	G1"	
	Raw Water Outlet	G1 1/4"	
HEATER SYSTEM			
Wattage		W	3000
Voltage AC		V	220
ELECTRICAL SYSTEM-DC			
System Voltage(Nominal)		V	24
Starter motor		Kw	6.2
Recommended Battery Capacity		AH	150
Cold Cranking Amperes @ -18°C (0°F)		CCA	800
Reserve Capacity (RC)		Min	290
Charging Alternator Output		Amps	45
Max. Starter Cranking Amps @4.5°C (0°F)		Amps	330
Min. Cranking Speed Required for Unaided Cold Start		rpm	230
FUEL SYSTEM			
Injection Pump			
Injection Advance Angle		°	11
Minimum Supply line Size		mm	10
Minimum Return line Size		mm	10
Fuel Management Control		Mechanical	
Max. Fuel Consumption		g/kw,h	250
Idle Speed		rpm	720
Max. Governed Speed		rpm	3245
Maximum allowable fuel height above fuel pump		m	3
Governed Speed Rate		%	<10
Engine Performance Data			
Estimated free field sound pressure level at 1 meter with full-load governed speed(Includes Noise from: exhaust; Cooling System and Driven Components)		dBa	108
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DIESEL ENGINE

Engine Model		CH6-110-EB		Curve No.		C06110B	Date	2019/6/10
Displacement	7.13	L	Aspiration	Naturally		Power Standard		UL/FM
Bore	110	mm	Cylinder Qty.	6		114 KW @ 2950 r/min		
Stroke	125	mm	Fuel System	In-Line; Mechanical		153 HP @ 2950 r/min		



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1500		
1760		
2100		
2350		
2650		
2950	368	271

Output Power		
Speed	Output Power	
RPM	KW	HP
1500		
1760		
2100		
2350		
2650		
2950	114	153

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1500		
1760		
2100		
2350		
2650		
2950	250	0.411