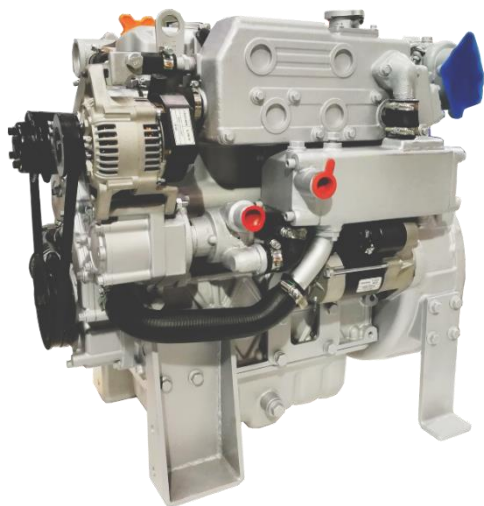


Marine Application



General Engine Data

Family name	4D24
Type	Vertical In-line, Water Cooled, diesel Four Stroke
Combustion System	Direct Injection
Cylinder NO.	4
Bore x Stroke	87 mm x 103 mm
Displacement	2.45 litres
Compression Ratio	19.0 : 1
Induction System	naturally aspirated
Firing Order	1 - 3 - 4 - 2
Flywheel (inch)	7.5"
Flywheel Housing	SAE #4
Emission Level	RCD II – for propulsion application Stage IIIA – for auxiliary application

Propulsion Performance

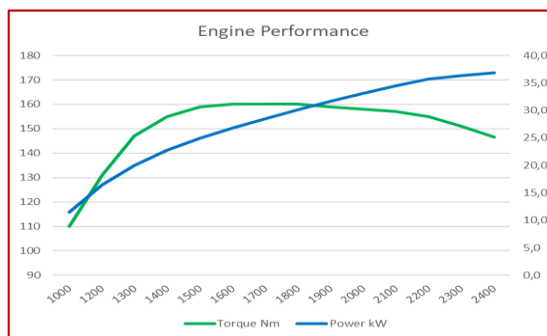
Raywin Engine Power

Model	Max Power (*) @ engine speed (kW / rpm)
4D2400	36,8 @ 2400

Note: Oil consumption (% fuel): ≤ 0.1

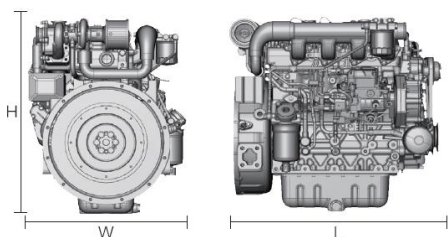
(*): Net power at flywheel according to ISO 8665 after 50 hours running, fuel diesel EN 590

Test conditions: 25°C air temperature, 100kPa atmospheric pressure, 30% relative humidity



Auxiliary Performance @ 1500 / 1800 rpm (50 / 60 Hz) – cos-fi 0,8

Raywin Engine Power				Gensets Power				
Model	Prime	Standby	Engine Speed (rpm)	Assumed Alternator Efficiency	Prime		Standby	
	(kWm)	(kWm)			kW	kVA	kW	kVA
4D24G2/A	23.0	25.3	1500	0.87	20.0	25.0	22.0	27.5
4D24G1/A	27.0	29.7	1800		23.5	29.4	25.8	32.2



Installation Information: Engine Dimension & Weight

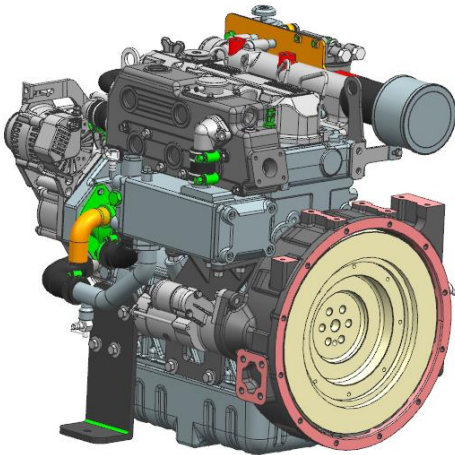
Family Name	Weight (kg)	Dimensions (mm)		
		L	W	H
4D24	210	685	534	675

Marine Application

Raywin Engine Scope of Supply

Auxiliary & Propulsion application

Rigid Supports, Heat Exchanger W/W mounted, double V-belts, Pulleys & belts guards, water cooled exhaust manifold, raw water pump, air filter, SAE#4/7,5 inch, HWT alarm & sensor, LOP alarm & sensor, oil filter, fuel filter, fuel pre-filter, 12V electric system, electrical feed pump (*loose*), RAL 7047; wet exhaust elbow (*standard for propulsion application*)



Raywin Engine Features

Startability & Operating Temperatures

Unaided Starting	-10°C
Aided Starting	-30°C
Ambient operating temperatures	-30°-45°C
Options: Solutions for more than 45°C and below -30°C	

Raywin Engine Features

Easy Service Features

Same side maintenance: Oil, Fuel and Air filter are on the same side	
Fuel filter change interval (hr)	250 or each 12 months
Oil filter change interval (hr)	250 or each 12 months
Alternator belt replacement (hr)	800 or each 24 months
Coolant change (months)	24



Note: As per technology improvements, the above parameters will continue to evolve in accordance to new legislations. The information in this brochure may be changed or upgraded without prior notice