

Powercity®

Marine Power Train System

Efficient • Reliable • intelligent



PPS-50R

PPS50R202609

Marine Engine

RAYWIN 4D2402/A marine diesel engine adopts Natural aspirate, 4-cylinder in-line, four-stroke direct injection design. Rated prime power reaches 36.8kW @3000rpm, power category $25.8\text{kW} \leq P < 36.8\text{kW}$.

Equipped with reliable fuel pump, it delivers low fuel consumption, featuring high reliability and low operating cost. Compact and lightweight structure meets CE standards with long maintenance intervals. Same-side service layout simplifies maintenance.

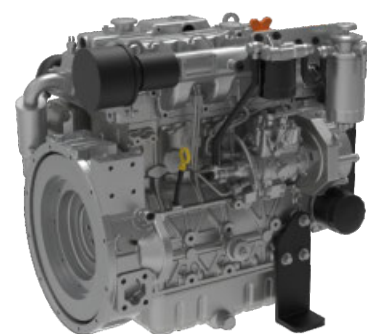
Available options: dual belts, belt guards, 24V starting system, exhaust-water mixer. Safe, robust and fuel-efficient, it serves as main propulsion power for fishing boats, cargo boats, yachts, traffic boats and working boats.



Product Features

- This engine has a compact structure, sufficient power and is equipped with EUSTage IIA, CSS and other certificates.
- Engine cover 25.8~36.8kw
- Maintenance fuel filter/fuel pre-filter/oil filter at same side makes it easier for disassembly and maintenance.
- The tunnel-type cylinder block and independent bearing supports reduce vibration and enhance strength, ensuring a longer service life and higher reliability.
- A wide range of optional configurations allows customers to have more choices. Such as 1000h long maintenance interval, muffler,
- Wide Options: 24V system, two cooling systems, Belt shield, Double V-Belts, Vibration, Integrated water-cooled exhaust pipe.

RAYWIN



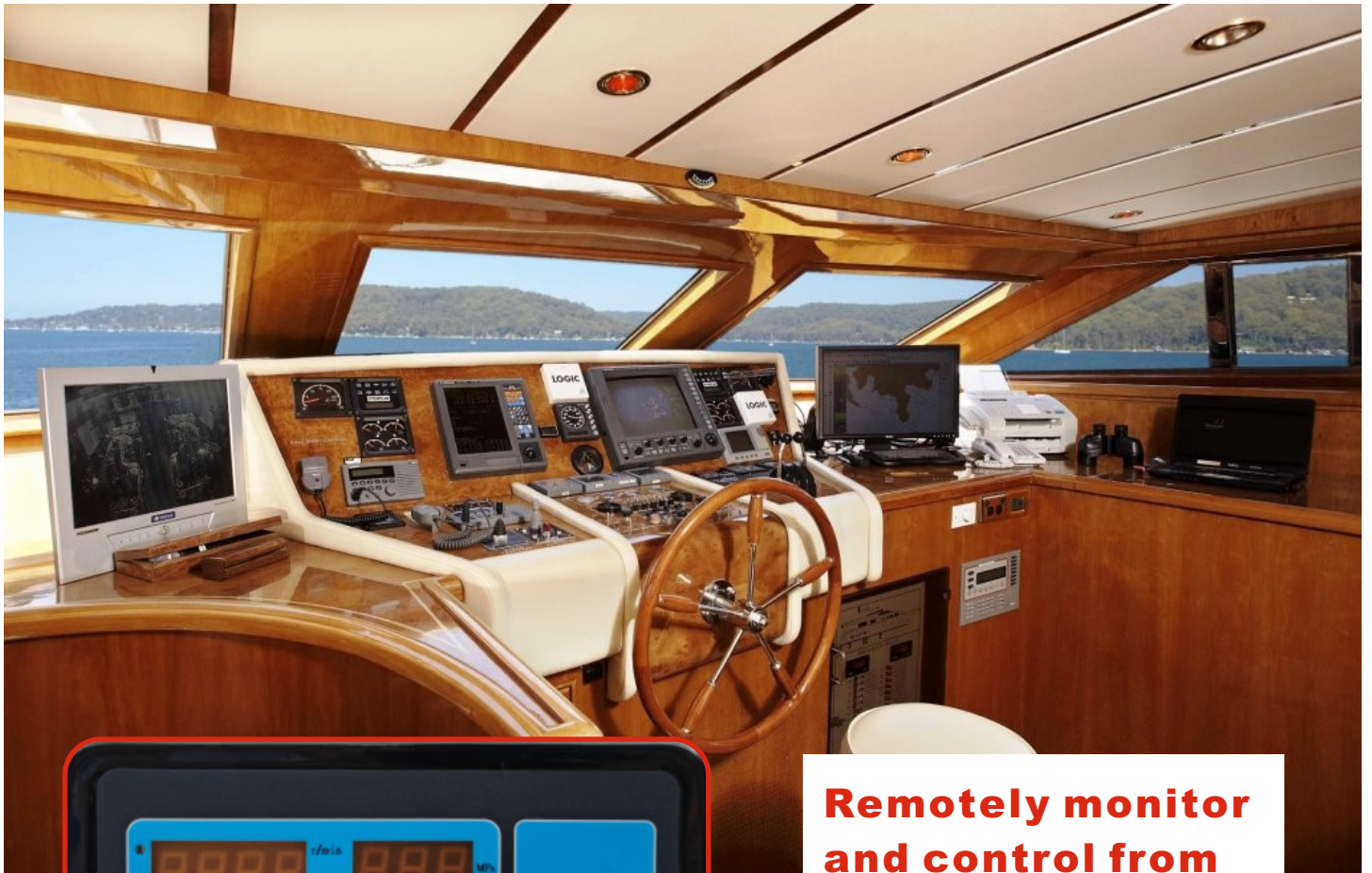
ISO9001:2015 system certification
ISO/TS16949:2002 System Certification
Quality System Certification
Environmental System Certification
Occupational Health Certification
CCS ship inspection certificate
IMO: Emissions Certification
LL-C system certification

Marine Gearbox

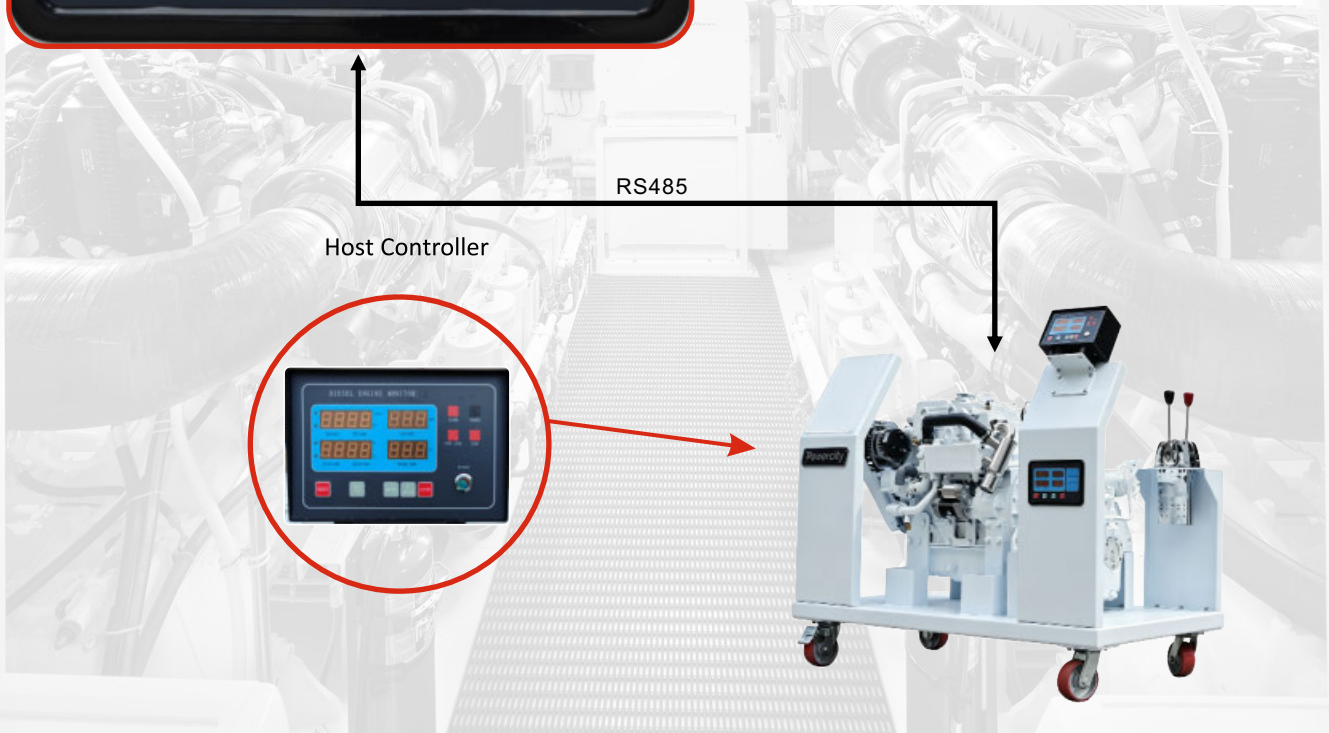
Compatible with 4D2402/A high-speed main engine, model MA125A features a reduction ratio of 2.46:1 rated input speed 1500-3000 r/min and rated transmission capacity up to 0.020kW/(r·min⁻¹). The unit fully complies with industry standard CB/T 3003-2011 for marine medium-speed diesel engine gearboxes, certified by CCS (China Classification Society). Certifications from international classification societies including LR, BV, DNV-GL are available upon request.

Constructed with thick cast iron housing and high-precision quenched helical gears, it achieves transmission efficiency exceeding 96%. Hydraulic clutch ensures smooth shifting with low noise and vibration, and multi-angle installation is supported. Ideal for fishing vessels, cargo boats, traffic boats and other craft. Modular design enables easy disassembly and maintenance, delivering reliable long-term operation and superior fuel efficiency.





**Remotely monitor
and control from
the Captain's
bridge through
QYX-G Remote
Monitoring Module.**



Specifications

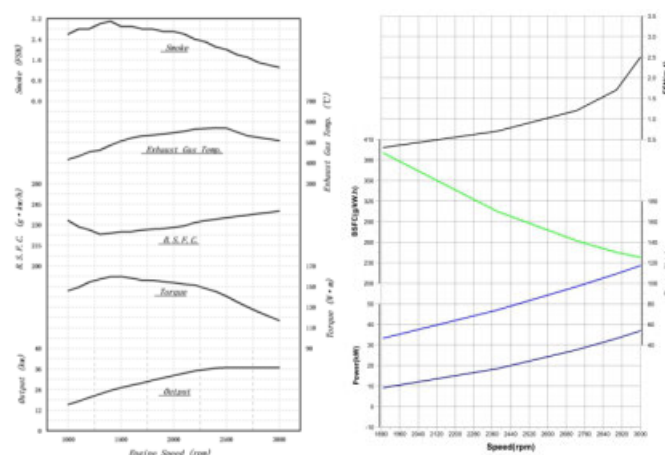


Model	PPS-50R
Engine Model	4D2402/A
Usage	Marine Propulsion
Type	NA
Displacement	2.45L
Rated power/speed	36.8kw/3000rpm
Overload power/speed	/
Borex Stroke mm	87 × 103
Minimum fuel consumption rate	≤225g/kWh
Starting method	Electric start
Noise	≤94dB(A)
Cylinder No.	4
Fuel system	Stanadyne DB4 Pump
Average piston speed	10.3m/s
Ignition Order	1—3—4—2
Max temp of inlet fuel	45°C
Max Fuel inlet flow	50L/h
Max temp of return fuel	80°C
Max fuel return flow	35L/h
Air intake pressure	100kpa
Air intake flow	190m³/h
Exhaust flow	205m³/h
Exhaust temp	≤580°
Open temp of thermostat	71°C
Full-open temp of thermostat	81°C
Crankshaft Rotation	CCW (Facing the flywheel)
Max allowable air inlet restriction	5kpa
Max allowable air outlet restriction	10kpa
Oil pan capacity	9.5L
Dimension(with heat exchanger,air filter)	679x596x679
Marine Gearbox Model	MA125A
Rated Input Speed	1500~3000RPM
Ratio	2.46
Rate	0.020kW/(r·min ⁻¹)
Options/Comments	Mechanical or electrical remote operation
Centre distance	125mm
Rated Propeller Thrust	5.5KN
Mechanical Efficiency	≥ 96%
Reversal Time	≤ 10s
Hydraulic Oil Pres.	1.0~1.3MPa
Oil Brand	SD/CC30 SD/CC40 or SAE30
Oil Capacity	4.8L
Oil Temperature	≤ 80°C
Consumption of Cooling Water	≥ 25 L/min
Permissible Inclination	10°in longitudinal, 15°transversal
Overhaul	6000h

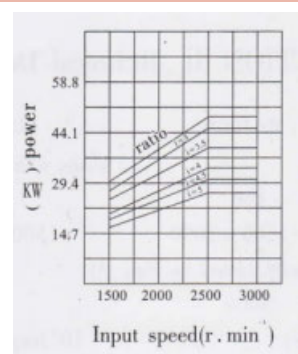


1350 X 800 X900mm

► External characteristic curve Propelling characteristic curve



► Capacity Chart



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