

Powercity®

Marine Power Train System

Efficient • Reliable • intelligent



PPS-25R

PPS25R202609

Marine Engine

RAYWIN 3D1103/A marine diesel engine adopts naturally aspirated, 3-cylinder in-line, four-stroke direct injection design. Rated prime power reaches 18.4kW @3000rpm, power category P < 19kW.

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 small fishing boats, yachts, traffic boats and working boats.



Product Features

- Engine cover 14.7kw~18.5kw, EU Stage V, CCS, RCD certifications.
- Fashionable design, layout of the fuel filter/fuel pre-filter/oil filter makes it elegant.
- Equipped with Stanadyne ECOG, it boasts higher reliability, 10% lower fuel consumption than other competitors, and a more compact structure.
- Engine can work ambient temperature to -10°C, high altitude.
- Same side maintenance, all maintenance parts easy to replace.
- Wide options: Double belts, belts shielded, 24V system, tow cooling system and fuel system. Integrated water-cooled exhaust pipe.

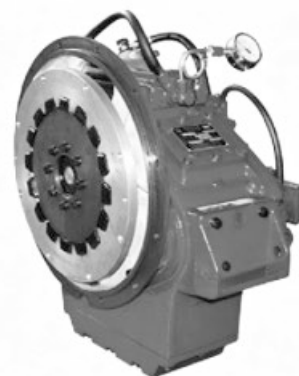
RAYWIN

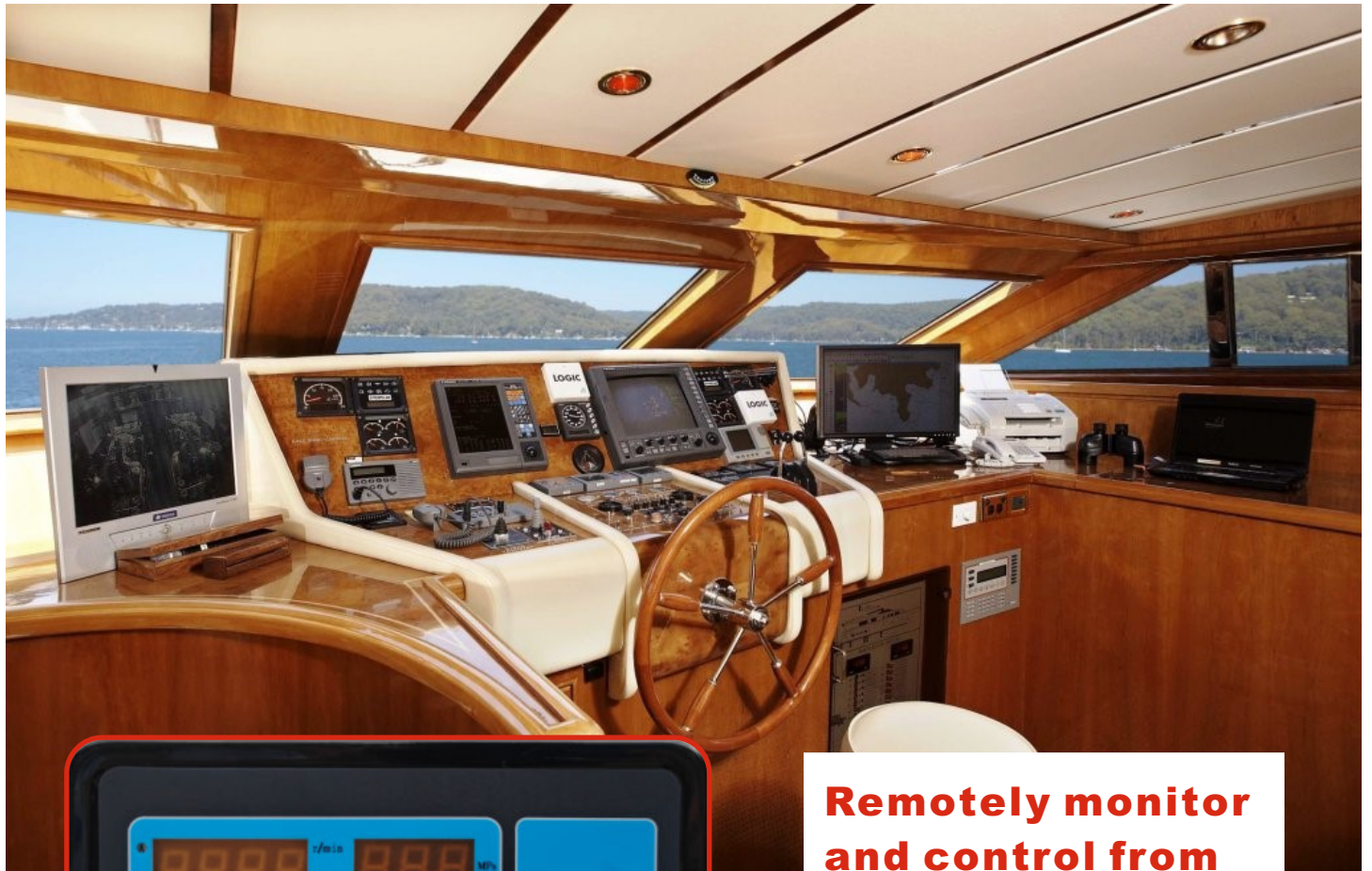
ISO9001:2015 system certification
ISO/TS16949:2002 System Certification
Quality System Certification
Environmental System Certification
Occupational Health Certification
CCS ship inspection certificate
IMO: Emissions Certification
LL-C system certification

Marine Gearbox

Compatible with 3D1103/A high-speed main engine, model MA100A features a reduction ratio of 2.55:1 rated input speed 1500-3000 r/min and rated transmission capacity up to 0.0074kW/(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 small fishing vessels, 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.**

RS485

Host Controller



Specifications

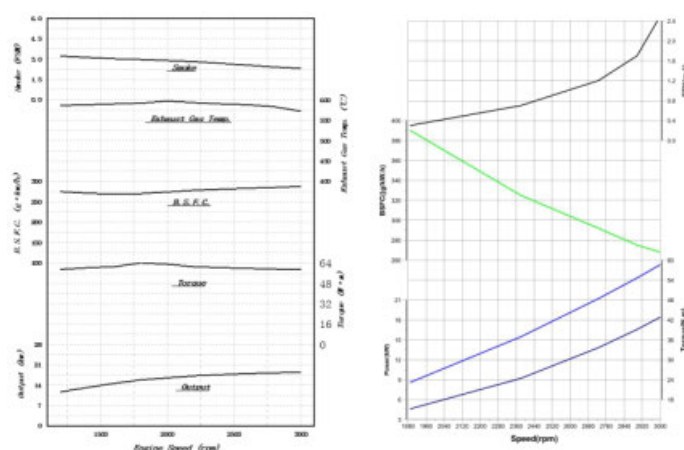


Model	PPS-25R
Engine Model	3D1103/A
Usage	Marine Propulsion
Type	Naturally Aspirated
Displacement	1.067L
Rated power/speed	18.4kW/3000rpm
Overload power/speed	/
Bore x Stroke mm	76 x 78.4
Minimum fuel consumption rate	≤275g/kWh
Starting method	Electric start
Noise	≤95dB(A)
Cylinder No.	3
Fuel system	Stanadyne ECOG
Average piston speed	7.84m/s
Ignition Order	1—2—3
Max temp of inlet fuel	45°C
Max Fuel inlet flow	25L/h
Max temp of return fuel	80°C
Max fuel return flow	18L/h
Air intake pressure	95–100kpa
Air intake flow	84m³/h
Exhaust flow	87m³/h
Exhaust temp	≤470°
Open temp of thermostat	82°C
Full-open temp of thermostat	95°C
Crankshaft Rotation	CCW (Facing the flywheel)
Max allowable air inlet restriction	2kpa
Max allowable air outlet restriction	5kpa
Oil pan capacity	4.6L
Dimension(with heat exchanger,air filter)	587x443x565
Marine Gearbox Model	MA100A
Rated Input Speed	1500~3000RPM
Ratio	2.55
Rate	0.0074kW/(r·min ⁻¹)
Options/Comments	Mechanical or electrical remote operation
Centre distance	100mm
Rated Propeller Thrust	3.0KN
Mechanical Efficiency	≥ 96%
Reversal Time	≤ 10s
Hydraulic Oil Pres.	1.0~1.3MPa
Oil Brand	SD/CC30 SD/CC40 or SAE30
Oil Capacity	2.0L
Oil Temperature	≤ 80°C
Consumption of Cooling Water	≥ 15 L/min
Permissible Inclination	10°in longitudinal, 15°transversal
Overhaul	6000h

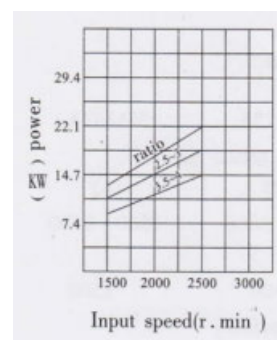


1350 X 800 X900mm

► External characteristic curve Propelling characteristic curve



► Capacity Chart



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