

Powercity®

Marine Power Train System

Efficient • Reliable • intelligent



PPS-80R

PPS80R202609

Marine Engine

RAYWIN 4E38T marine diesel engine adopts turbocharged design. Its BOSCH common-rail version is RCD2-certified with power range 63~74kW. And Inline pump system power range is 55~90kW, Stanadyne fuel system cover 55~65kW.

Stanadyne rotary fuel pump or Weifu in-line pump and BOSCH common-rail delivers 10% lower fuel consumption than competitors, featuring high reliability and low operating cost. Compact and lightweight, it meets CE standards with long maintenance intervals. Same-side service layout simplifies maintenance.

Available options: dual belts, belt guards, 24V system, two cooling & fuel systems, 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

- Turbo-charged engine with conventional structure, no emission certification. The common-rail series has obtained RCD2 certification.
- Engine power range of this series: 55kW ~ 90kW.
- Optional Stanadyne rotary fuel pump and Weifu in-line fuel pump. Fuel consumption is 10% lower than comparable competing products. It delivers high reliability while significantly reducing end-user operating costs.
- Adopting advanced design, compact structure and light weight. Complies with CE standards and features long maintenance intervals.
- Same-side service design for convenient later-stage maintenance.
- Multiple configuration options: dual belts, belt guards, 24V system, two different cooling systems and fuel systems. exhaust-water mixers are also available.

RAYWIN

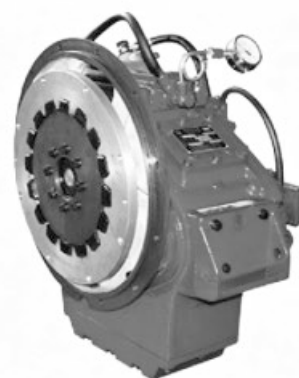


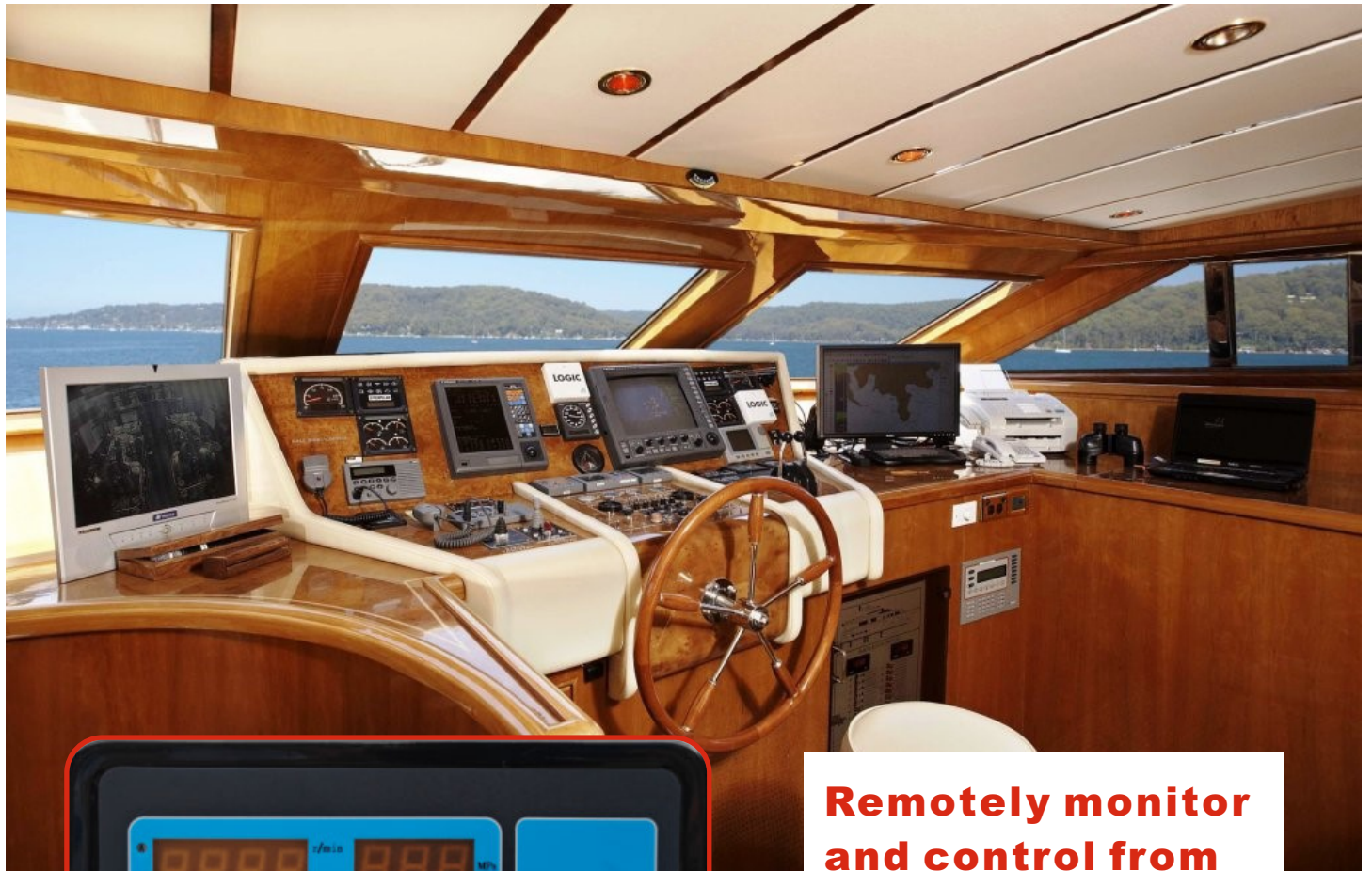
ISO9001:2015 system certification
ISO/TS16949:2002 System Certification
Quality System Certification
Environmental System Certification
Occupational Health Certification
CCS ship inspection certificate
IMO: Emissions Certification
LL-C system certification

Marine Gearbox

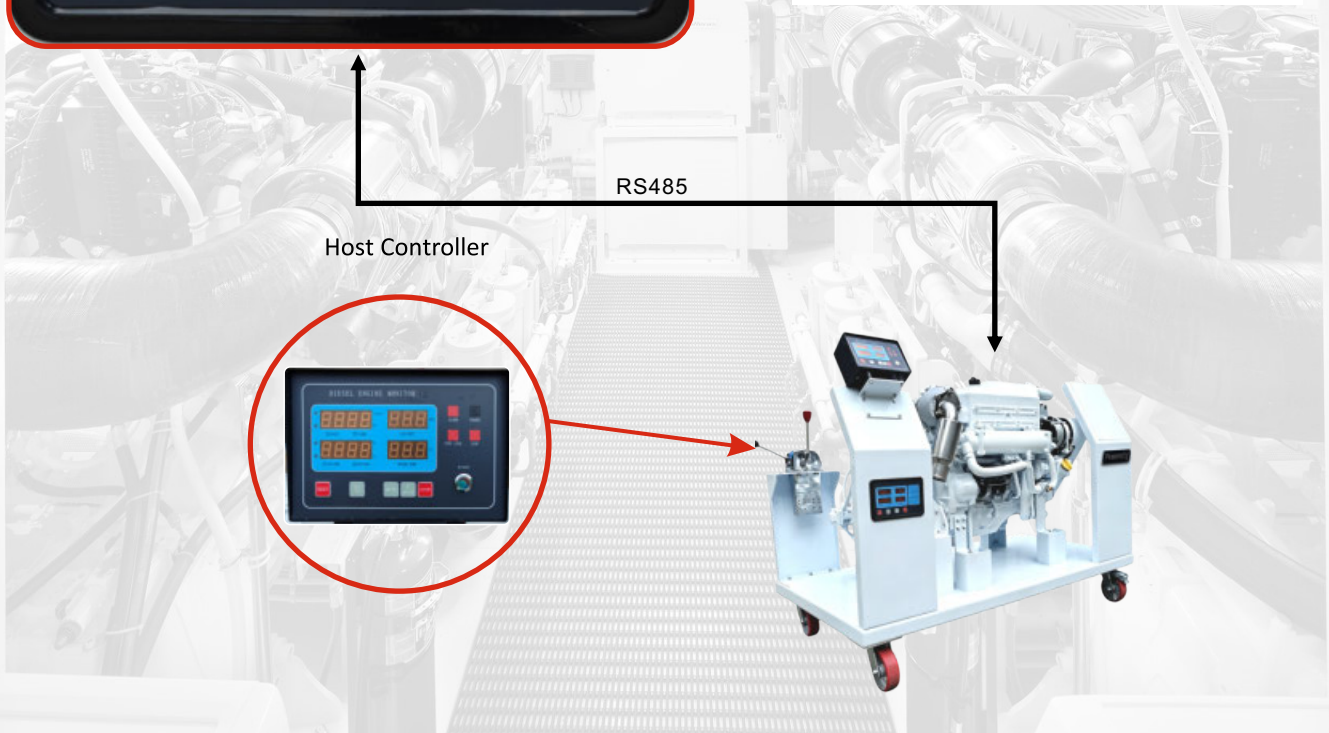
Compatible with 4E38T07/FW high-speed main engine, model MA142A features a reduction ratio of 2.52:1, rated input speed 1500-2500 r/min and rated transmission capacity up to 0.030kW/(r·min⁻¹). The unit fully complies with industry standard CB/T 3003-2011 for marine medium-speed diesel engine gearboxes, 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 low vibration, and multi-angle installation is supported. Ideal for patrol boats, fishing vessels, passenger transport 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

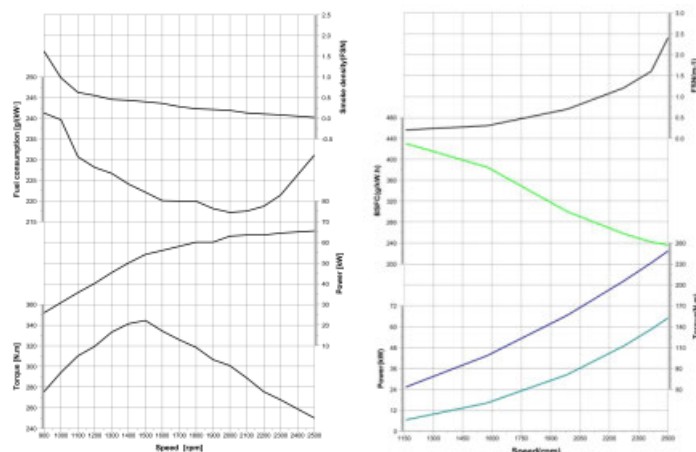


Model	PPS-80R
Engine Model	4E38T07/FW
Usage	Marine Propulsion
Type	Turbo
Displacement	3.8L
Rated power/speed	65kw/2500rpm
Overload power/speed	68kw/2720rpm
Borex Stroke mm	102 × 115
Minimum fuel consumption rate	≤215g/kWh
Starting method	Electric start
Noise	≤95dB(A)
Cylinder No.	4
Fuel system	Inline Pump
Average piston speed	9.58m/s
Ignition Order	1—3—4—2
Max temp of inlet fuel	45°C
Max Fuel inlet flow	2.5m/s
Max temp of return fuel	80°C
Max fuel return flow	70L/h
Air intake pressure	50L/h
Air intake flow	250m³/h
Exhaust flow	265m³/h
Exhaust temp	≤560°
Open temp of thermostat	72°C
Full-open temp of thermostat	84°C
Crankshaft Rotation	CCW (Facing the flywheel)
Max allowable air inlet restriction	5kpa
Max allowable air outlet restriction	10kpa
Oil pan capacity	13L
Dimension(with heat exchanger,air filter)	935x715x805
Marine Gearbox Model	MA142A
Rated Input Speed	1500~2500RPM
Ratio	2.52
Rate	0.030kW/(r·min ⁻¹)
Options/Comments	Mechanical or electrical remote operation
Centre distance	142mm
Rated Propeller Thrust	8.5KN
Mechanical Efficiency	≥ 96%
Reversal Time	≤ 10s
Hydraulic Oil Pres.	1.0~1.3MPa
Oil Brand	SD/CC30 SD/CC40 or SAE30
Oil Capacity	5.8L
Oil Temperature	≤ 80°C
Consumption of Cooling Water	≥ 35 L/min
Permissible Inclination	10°in longitudinal, 15°transversal
Overhaul	6000h

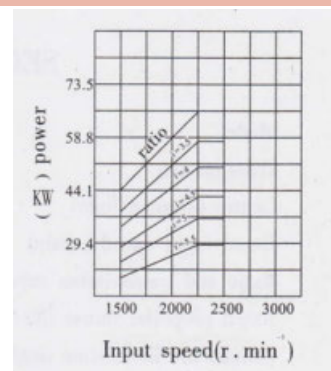


2100 X 900 X1260mm

► External characteristic curve Propelling characteristic curve



► Capacity Chart



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