

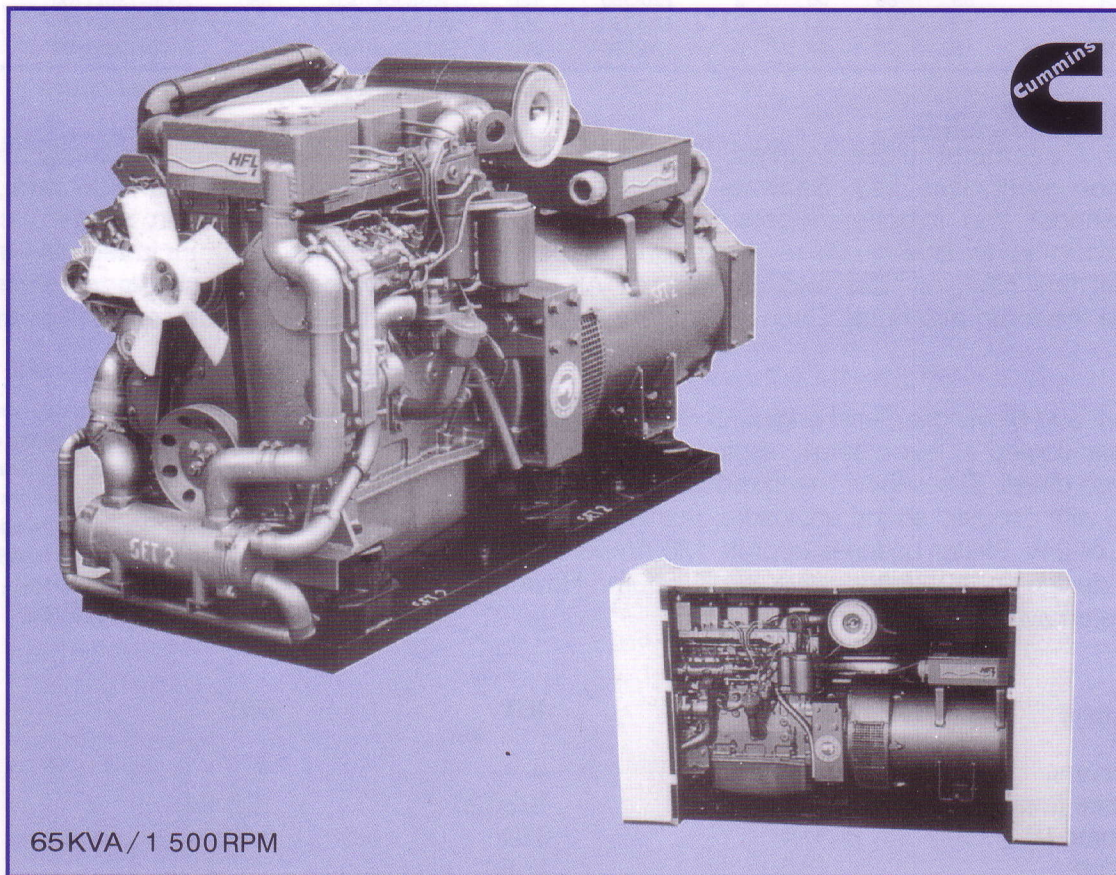


RANGER C

S E R I E S

40 - 105 KVA

MARINE DIESEL GENERATOR



65KVA/1500RPM

- * with **CUMMINS** diesel engine and sound cover to eliminate noise
- * brushless alternator

Slow-speed silence
Compact dimensions
Thrifty in consumption
Convenient to service
Low noise
Ultimate reliability

Standard Accessories

- 12V or 24V electric start/stop
- oil pressure and c.w. temp. cutout
- charging alternator
- heat exchanger cooling
- speed fine adjustment
- seawater pump
- fuel lift pump 12V
- watercooled exhaust manifold
- resilient mounting system
- 1-phase and 3-phase voltage

★ **generating confidence afloat** ★



| Model Modell | KVA | KW | Hz | Phase | Voltage | Amps | Set Din Abmessungen L x W x H | WT Gew | Cover Din Haube L x W x H | Engine Motor |
|-----------------|-----|----|----|-------|---------|------|-------------------------------------|-----------|---------------------------------|-----------------|
| H4M 40 C 35 | 40 | 32 | 50 | 3 | 220/380 | 60 | 1595x630x880 | 670 | 1650x730x900 | 4B |
| | 40 | 32 | 50 | 3 | 220 | 105 | 1595x630x880 | 670 | 1650x730x900 | 4B |
| | 38 | 30 | 50 | 1 | 220 | 180 | 1595x630x880 | 670 | 1650x730x900 | 4B |
| H4M 45 C 36 | 45 | 36 | 60 | 3 | 120/208 | 125 | 1595x630x880 | 670 | 1650x730x900 | 4B |
| H4M 65 C 35T | 65 | 52 | 50 | 3 | 220/380 | 100 | 1595x630x880 | 740 | 1650x730x900 | 4BT |
| | 65 | 52 | 50 | 3 | 220 | 170 | 1595x630x880 | 740 | 1650x730x900 | 4BT |
| | 42 | 34 | 50 | 1 | 220 | 195 | 1595x630x880 | 740 | 1650x730x900 | 4BT |
| H4M 51 C 15T | 51 | 40 | 50 | 1 | 220 | 235 | 1595x630x880 | 760 | 1650x730x900 | 4BT |
| H4M 75 C 36T | 75 | 60 | 60 | 3 | 120/208 | 200 | 1595x630x880 | 760 | 1650x730x900 | 4BT |
| | | | | | | | | | | |
| H6M 85 C 35T | 85 | 68 | 50 | 3 | 220/380 | 130 | 1895x630x1020 | 950 | 2000x730x1100 | 6BT |
| H6M 105 C 35T | 105 | 84 | 50 | 3 | 220/380 | 160 | 1940x630x1020 | 980 | 2100x730x1100 | 6BT |
| H6M 120 C 36T | 120 | 96 | 60 | 3 | 120/208 | 330 | 1940x630x1020 | 980 | 2100x730x1100 | 6BT |

Specification may be altered without notice

Standard Specification

Engine and alternator close-coupled via flexible disc and bell-housing. Set resiliently mounted on common steel base tray. Seawater circulation pump, heat exchanger, expansion tank, water-cooled exhaust and injection elbow fitted. The engine with forced lubrication system, constant speed governing to BS649 Class A. Output as per BS649 and DIN 6270 Included are injection pump, fuel fine filter, oil filter and air cleaner. All contrlcircuits wired into a common terminal box located on the main alternator. Each set factory tested and sprayed in blue, heat resistant paint finish.

Engine

Cummins 4- and 6-cylinder diesel engine, B Series, vertical four stroke, water-cooled in line naturally aspirated or alternatively, turbo-charge diesel. The engine marinized by HFL suitable for application with acoustic sound enclosure. Starting equipment either 12V or 24V. Starter batteries approx. 120 Ampere hours. Standard design in 12 Voltnegative earth return. However, insulated returnavailable as optional.

Agency Approvals

Cummins marine engines for continuous duty operation have agency design approval by the American Bureau of Shipping, Lloyd's Register, Germanische Lloyd, Det Norske Veritas, Registro Italiano Navale, Bureau Veritas and for registration by the Candian Coast Guard Ship Safety Branch Inspection. In addition Cummins has manufacturing facilities that are approved by ABS, BV Lloyd's DNV and RINA for quality control procedures and batch and line Production.

Engine Details

| | 4B | 4BT | 6BT |
|--------------------------|-----------------------|---------|---------|
| No of cylinders | 4 | 4 | 6 |
| Bore x stroke (mm) | 102x120 | 102x120 | 102x120 |
| Swept Volume (l) | 3.94 | 3.94 | 5.88 |
| Compression | 18.5:1 | 17.5:1 | 16.5:1 |
| Fuel consumption (g/psh) | 221 | 221 | 218 |
| Output at 1500rpm (kw) | 39 | 63 | 98 |
| Inclination | 35° in all directions | | |

Alternator

Brushless alternator, suitable for single-phase and 3-phase voltages. 4-pole 1500/1800 rpm for 50 or 60Hz. All alternators to comply to IEC 34-1, CE12-3, BS499-5000, VDE0530, NF51-100,111 and OVEM-10. AVR mounted remotely in separate box. The terminal voltage generally maintained within $\pm 2\%$ of set value at balanced load. Closer tolerances available. Short-term low power factor overload capability and excellent motor starting performance. Standard design allows 2.5-3 x fl current overloads. Optionally available are paralleling equipment, 3-phase sensing, short circuit maintenance and higher requirements for radio suppression.

Designed and Manufactured by

HFL INDUSTRIAL & MARINE POWER LTD.

HFL MANTECH

PO BOX 20695, DUBAI

UNITED ARAB EMIRATES

TEL: +971 4333 25 42 FAX: +971 4333 06 49

Distributor