

Beta Marine are an ISO Quality Assured Firm. Since 1987, we have been continually improving our Quality Procedures, whilst being monitored annually by ISO Quality Services Ltd.



## Marine Generating Sets Engine Data Sheet - BetaSet-BetaGen 4/2

## **Generating Set Range - Specifications**

2, 3 or 4 cylinders with high inertia flywheel for smooth • running at low rpm.

Heater plugs for cold starting below 5°C, fuel filter, **MECHANICAL** fuel lift pump, **MECHANICAL** fuel injection pump and **MECHANICAL** engine governing\* ensures steadfast performance regardless of ambient conditions.

**QUIET GEAR DRIVEN CAMSHAFT** for maximum engine reliability and reduced servicing, as no timing chains or toothed belts have to be replaced.

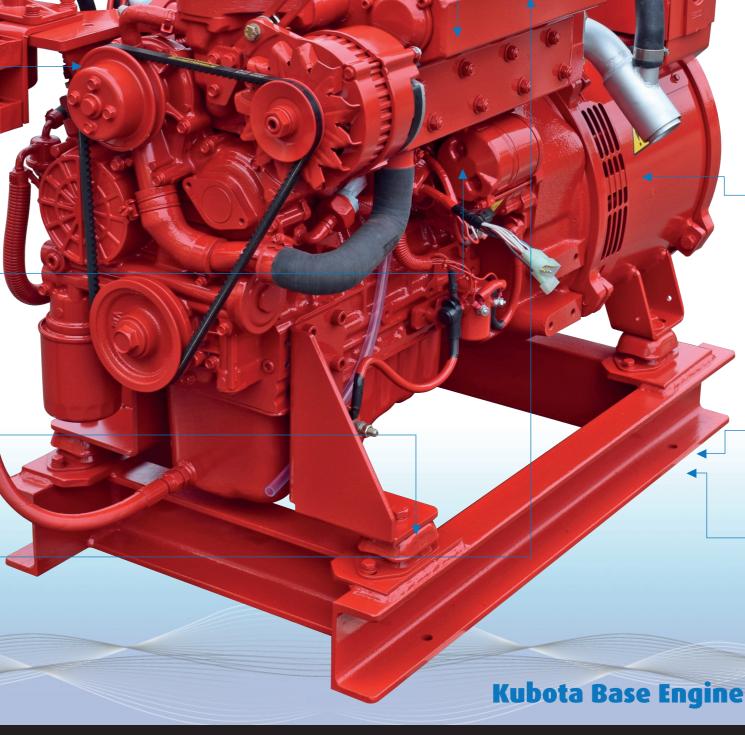
The generating set seating in the vessel should be level in all planes so it can be bolted down without stress or distortion. Subject to criteria, Kubota based engines can accommodate angles of 15° when pitching and 25° when heeling.

All BetaSet-BetaGen models are 12 volt electric start as standard, models up to the BetaSet-BetaGen 21 are equipped with a 45 amp battery charging alternator, the BetaSet-BetaGen 26 though to the BetaSet-BetaGen 49 are equipped with a 70 amp insulated return battery charging alternator. Optional 24 volt electric start is available for selected models.

The engine and generator alternator are close coupled together and mounted on steel feet with marine failsafe anti-vibration mountings ensuring isolation. Base frames are an optional extra for all BetaSet models.

Available as **HEAT EXCHANGER**, **KEEL** or **RADIATOR COOLED**, all BetaSet-BetaGen models are naturally aspirated except the BetaSet-BetaGen 40T & 49T which are turbocharged.

\*The BetaSet-BetaGen 14, 21, 49 & 49T are electronically governed. Images Are For Illustration Purposes & Not Necessarily Representative.



+44 (0)1452 723 492

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The marine rated generating set alternator operates at 0.8pf, with either 50 Hz or 60 Hz frequency and has a ventilated drip proof enclosure with IP 22 protection & single bearing construction. The generator is self-regulating, self-excited and is complete with terminal box and automatic voltage regulator. Suitable for operation in engine room temperatures of up to 45°C. Standard 50 Hz voltage is 230v single phase, 400v 3 phase, or standard 60 Hz is 120v single phase, 208v 3 phase, other voltages are available upon request.

- Kubota three vortex combustion (E-TVCS) with indirect injection for quiet running, low emissions and excellent fuel consumption – All BetaSet-BetaGen variants except the BetaSet-BetaGen 40T & 49T.
- Kubota centre direct injection (E-CDIS) for quiet running, low emissions and excellent fuel consumption – BetaSet-BetaGen 40T & 49T.

| BetaSe   | t-Beta                     | aGen  | 4/2  | Cooling Options  |                |  |
|--|----------------------------|---|--|--|----------------|--|
| Available With Heat  | Exchanger Kee              | l Or Padiator Co  | oling  | Heat Exchanger Cooled  | Std.           |  |
|  | Exclidingel, Ree           |   |  | Keel Cooled  | Std.           |  |
|  |                            | Franklin CE   |  | <b>(3)</b>   |                |  |
|  |                            |   |  | PSM720 Start & Stop Protection Module  | Std.           |  |
|  |                            | EPM72 Start & Stop Protection Module<br>RSM72 Local & LPM72 Remote Control Module | Opt.*  |  |                |  |
|  |                            |   |  | RSM72 LOCAL & LPM72 REHIDLE CONTION MODULE   | Opt.           |  |
|  |                            |   |  | *Only when a 70 Amp, 12 Volt Insulated Return Alternator is specifie Engine Electrical Options | d.             |  |
|  |                            |   |  | 45 Amp, 12 Volt Alternator   | Std.           |  |
|  | 64                         |   | A CALLER A   | 70 Amp, 12 Volt Anemator<br>70 Amp, 12 Volt Insulated Return Alternator                        | Opt.           |  |
| Kubota Base E  | ngine                      |   | BetaGen 4/2         BetaGen 4/2                          | BetaGen 4/2<br>Heat Exchanger Cooled         Dimensions & Weight                               |                |  |
|  |                            | 1   |  | Images Below Are For Illustrating Dimensions & Not Necessarily Rep                             |                |  |
| 2-Pole<br>AC Alternator  | 1 Phase, 50Hz<br>3,000 rpm | 1 Phase, 60Hz<br>3,600 rpm  |  |  |                |  |
| Max. Output  | 4.0 kVA                    | 4.5 kVA   |  |  |                |  |
|  |                            |   | The Detect Detector 4/2                                  |  |                |  |
| 7 Typical Load   | 17.4 A*                    | 17.4 A <sup>***</sup>   | The BetaSet-BetaGen 4/2<br>single phase is a unity power |  |                |  |
| <b>Cylinders</b>   | 2                          | 2   | factor kVA = kW generator                                |  |                |  |
| 🔛 Cubic Capacity   | 479 cc                     | 479 cc  |  |  |                |  |
| 💦 Fuel^  | 1.4 Lt/Hr                  | 1.7 Lt/Hr   |  | A B C  | Weight         |  |
| * Typical Maximum Amps at 230v based o   | n kW Electrical Load.      | All kVA continuou   | s output ratings are Marine Class F temperature rises.   | BetaSet 4/2 76 44 58   | 116Kg          |  |
| <ul> <li>Typical Maximum Amps at 415v based o</li> <li>Typical Maximum Amps at 240v based o</li> <li>Typical Maximum Amps at 440v based o</li> </ul> | n kW Electrical Load.      | Approximate Fi  | uel Consumption.   | These are typical dimensions: visit our website for all E                                      | 3etaSet-BetaGo |  |

+44 (0)1452 723 492

www.betamarine.co.uk

sales@betamarine.co.uk

Beta Marine Ltd operates a policy of continuous improvement and reserves the right to change prices & specification without prior notification. Information given is subject to our current conditions of tender & sale.

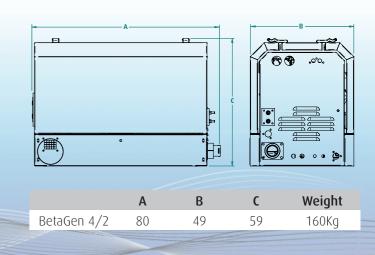
Radiator Cooled

Opt.

Opt.

| DSE3110 Manual & Auto Start Control Module | Opt. |
|--|------|
| DSE7310 Auto Start Control Module          |      |
| & DSE2510 Auto Start Display Module        | Opt. |

| 55 Amp, | 24 Volt | Electric | Start & | Alternator |
|---------|---------|----------|---------|------------|
|---------|---------|----------|---------|------------|



These are typical dimensions: visit our website for all BetaSet-BetaGen option drawings or contact Beta Marine direct