

## 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.

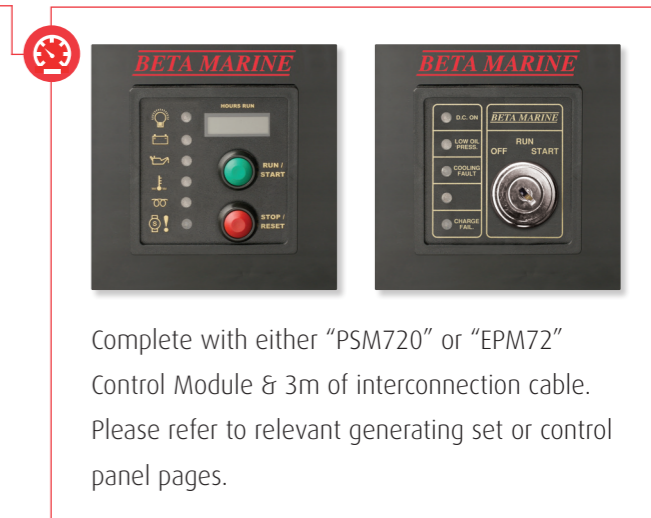
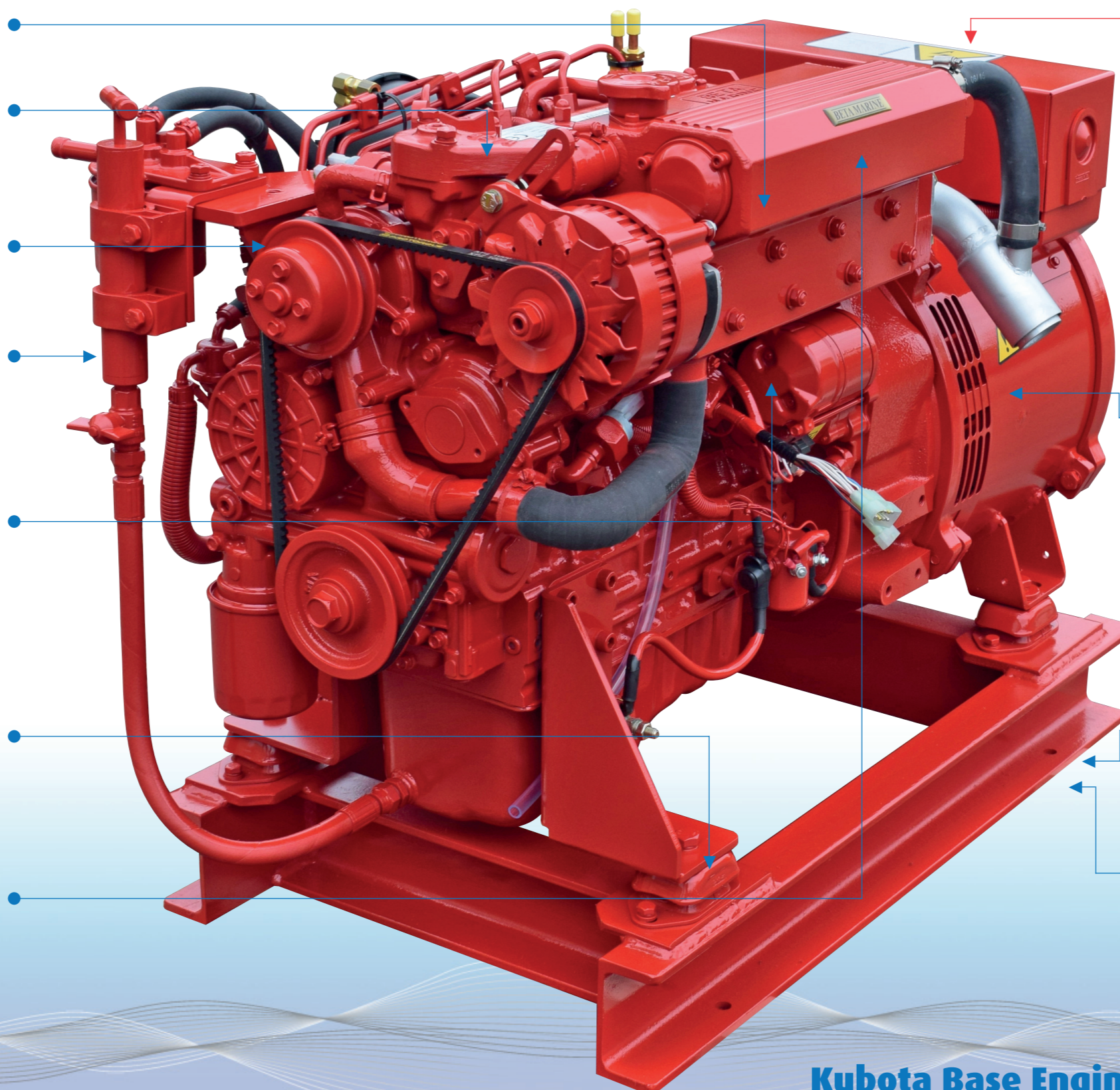
All BetaSet-BetaGen models are 12 volt electric start as standard, models up to the BetaSet-BetaGen 21 are equipped with a 45 amp battery charging alternator, the BetaSet-BetaGen 26 though to the BetaSet-BetaGen 49 are equipped with a 70 amp insulated return battery charging alternator. Optional 24 volt 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 IIIA & 49T IIIA which are turbocharged.

\*The BetaSet-BetaGen 40T IIIA & 49T IIIA are mechanically governed with an electronic actuator.

Images Are For Illustration Purposes & Not Necessarily Representative.



Complete with either "PSM720" or "EPM72" Control Module & 3m of interconnection cable. Please refer to relevant generating set or control panel pages.

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.

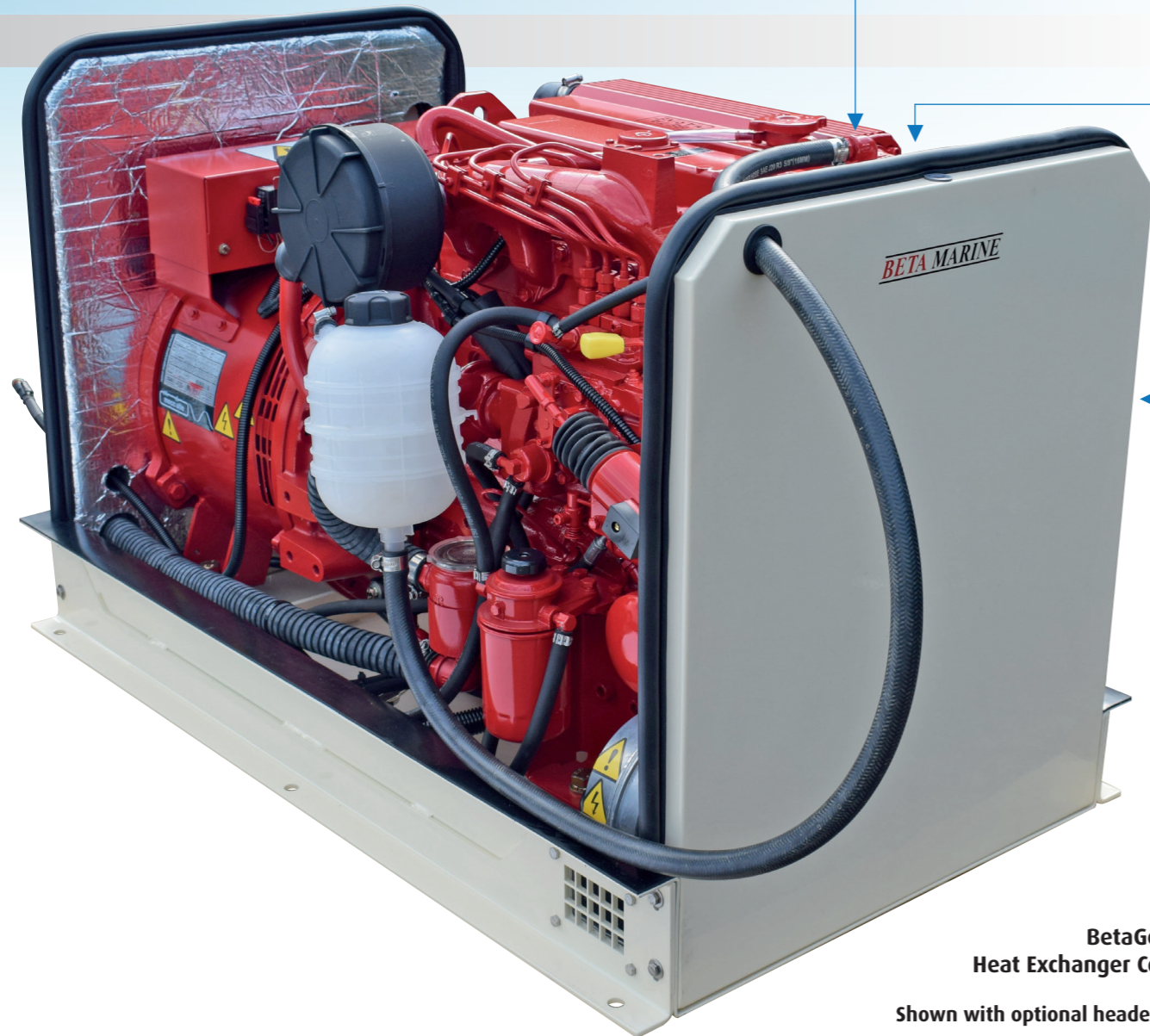
Kubota three vortex combustion (E-TVCS) with indirect injection for quiet running, low emissions and excellent fuel consumption – All BetaSet-BetaGen variants except the BetaSet-BetaGen 40T IIIA & 49T IIIA.

Kubota centre direct injection (E-CDIS) for quiet running, low emissions and excellent fuel consumption – BetaSet-BetaGen 40T IIIA & 49T IIIA.

**Kubota Base Engine**

# BetaSet-BetaGen 21

Available With Heat Exchanger, Keel Or Radiator Cooling



BetaGen 21  
Heat Exchanger Cooled  
Shown with optional header tank

## Cooling Options

Heat Exchanger Cooled	Std.	Radiator Cooled	Opt.
Keel Cooled	Std.		

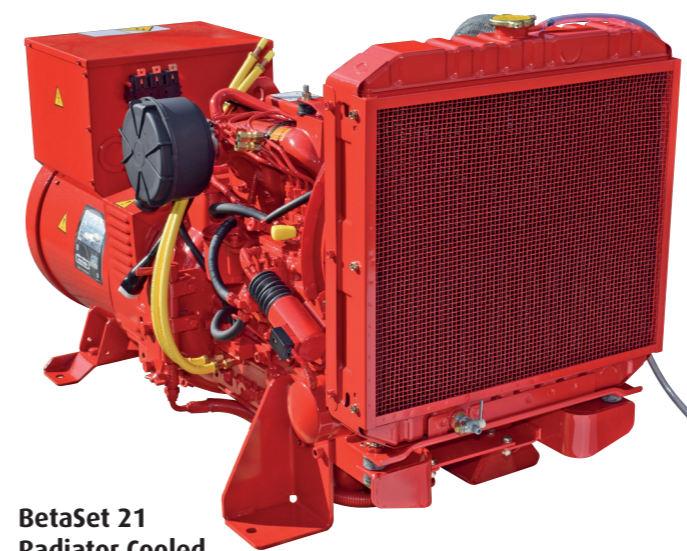
## Control Module Options

PSM720 Start & Stop Protection Module	Std.	DSE3110 Manual & Auto Start Control Module	Opt.
EPM72 Start & Stop Protection Module	Opt.*	DSE7310 Auto Start Control Module	
RSM72 Local & LPM72 Remote Control Module	Opt.	& DSE2510 Auto Start Display Module	Opt.

\*Only when a 70 Amp, 12 Volt Insulated Return Alternator is specified.

## Engine Electrical Options

45 Amp, 12 Volt Alternator	Std.	55 Amp, 24 Volt Electric Start & Alternator	Opt.
70 Amp, 12 Volt Insulated Return Alternator	Opt.		



BetaSet 21  
Radiator Cooled

## Kubota Base Engine

4-Pole AC Alternator	1 Phase, 50Hz 1,500 rpm 0.8PF	3 Phase, 50Hz 1,500 rpm 0.8PF	1 Phase, 60Hz 1,800 rpm 0.8PF	3 Phase, 60Hz 1,800 rpm 0.8PF
Max. Output	19.4 kVA	20.0 kVA	24.8 kVA	24.8 kVA
Typical Load	61.2 A*	20.2 A**	150 A***	51 A****
Cylinders	4	4	4	4
Cubic Capacity	2,197 cc	2,197 cc	2,197 cc	2,197 cc
Fuel^	4.7 Lt/Hr	4.8 Lt/Hr	5.8 Lt/Hr	6.0 Lt/Hr

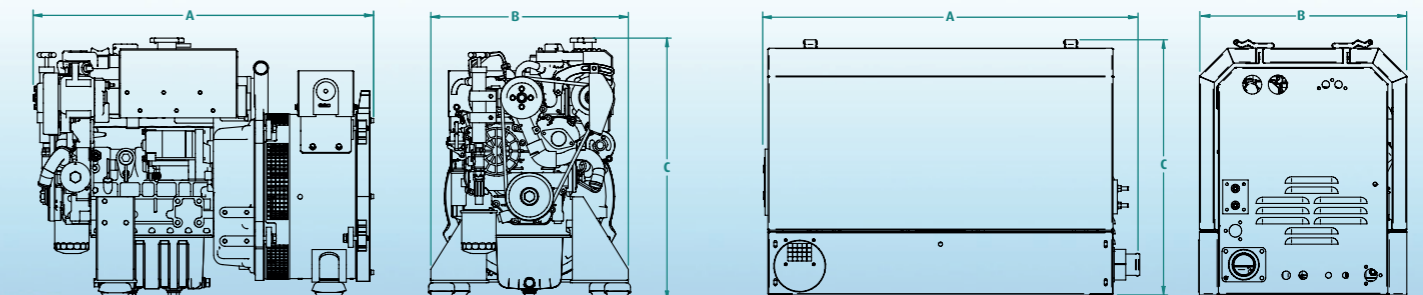
\* Typical Maximum Amps at 230v based on kW Electrical Load.  
 \*\* Typical Maximum Amps at 415v based on kW Electrical Load.  
 \*\*\* Typical Maximum Amps at 120v based on kW Electrical Load.  
 \*\*\*\* Typical Maximum Amps at 208v based on kW Electrical Load.

All kVA continuous output ratings are Marine Class F temperature rises.

^ Approximate Fuel Consumption.

## Dimensions & Weight

Images Below Are For Illustrating Dimensions & Not Necessarily Representative



	A	B	C	Weight
BetaSet 21 (1Ph)	127	57	71	454Kg
BetaGen 21	156	67	79	580Kg

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