

## BetaGen Marine Generating Sets

Single and 3 Phase Beta Marine **BetaGen "Super Silence"** with acoustic housings.

Max. kVA Output 4 Pole - 1500 rpm @ 0.8P.F.		Engine Model	Lloyds Register Design Appraisal (see note d)	BETAGEN "Super Silence" Model
1 Phase	3 Phase			
7.2	7.2	BD905	No	BetaGen 7
9.7	10.1	BD1105	No	BetaGen 10
10.7	11.2	BV1305	No	BetaGen 11
12.3	13.0	BV1505	Yes	BetaGen 12
14.0	14.5	BD1703	No	BetaGen 14
16.0	17.3	BV1903	Yes	BetaGen 17
19.8	21.1	BV2203	Yes	BetaGen 21
25.3	26.2	BV3300	Yes	BetaGen 26
32.0	33.5	BV3300	Yes	BetaGen 33
38.5	39.6	BV3800	Yes	BetaGen 40
44.0	49.5	BV3800	Yes	BetaGen 49

Maximum kVA Output 2 Pole - 3000 rpm @ 0.8P.F.		Engine Model	Lloyds Register Design Appraisal (see note d)	BETAGEN "Super Silence"
1 Phase	3 Phase			
4.0 °	-	BZ482	No	BetaGen 4/2
5.7 °	-	BZ482	No	BetaGen 6/2
-	7.7 °	BZ428	No	BetaGen 6/2
11.2	12.1	BD722	No	BetaGen 11/2
22.0	23.1	BV1305	No	BetaGen 22/2
24.8	25.9	BV1505	Yes	BetaGen 25/2

## **BETA MARINE – BETAGEN “SUPER SILENCE” – MARINE GENERATING SET**

**Marine Generating Set** having a maximum Rated Output as detailed; designed, built and tested by BETA MARINE LIMITED, each comprising:

- Powered by a Beta Marine water cooled ‘Kubota’ marine specification heat exchanger cooled auxiliary diesel engine naturally aspirated and rated at either 1,500 or 3,000 rev/min for operation in accordance with ISO 3046.
- Our high quality BetaGen marine grade acoustic housings are manufactured with zintec/steel, a 40mm sound insulated lining and removable panels for easy maintenance; the noise level will be less than 60dB(A) when measured at 7 metres under “free field” conditions. This is (at least) a further 10dB(A) reduction from our already quiet gensets – equivalent to about half the noise level as perceived by the human ear.
- Heat exchanger cooling complete with cupro-nickel tube bundle and phosphor bronze end caps and anode, with fresh and sea water pumps.
- Water cooled exhaust manifolds and water injection exhaust bend.
- 12 volt electric start system with battery charging alternator and stop solenoid valve, 2 wire grounded system (insulated return is standard on BetaGen 26, 33, 40 and 49).
- Combined start/stop, alarm and protection module is supplied loose with 3 metres of connection cable. Module includes:- Starting and Stopping push buttons, an hours run meter, and indicators with shutdown on fault of low lubricating oil pressure and high coolant temperature.
- Speed governor to control engine speed to the requirements of ISO 3046 for diesel generating set.
- Beta Marine standard fuel oil, lubricating oil and combustion air filters. Engine mounted sump drain pump.
- Mecc Alte alternator marine rated to ISO standard, brushless, self ventilated with IP 23 protection, single bearing construction. The generator is self regulating and self excited and is complete with terminal box and automatic voltage regulator, fully suitable for use in engine room environments of 45°C.
- Engine and generator are close coupled together and mounted on substantial steel feet with marine failsafe anti-vibration mountings to isolate the set from the ships seating.
- Paint: Beta Red for heat exchanger cooling or Dark Brunswick Green for keel cooling engines; and the acoustic enclosure will be painted White.
- Each generating set is “full load” tested in accordance with our quality document QA023.
- Warranty: 12 months from date of commissioning or 18 months from date of despatch – which ever comes first.
- Keel /box cooling versions are available and alternative specifications and requirements can be quoted on request.

### **Options and Extras:**

Water inlet kit including seacock and pipe	
Wet exhaust silencer 50mm & 3 metre hose kit. Wet exhaust silencer 60mm & 3 metre hose kit for BetaGen 26, 33, 40 and 49.	
Dry exhaust outlet including exhaust elbow and flexible stainless steel bellows section in lieu of water injection bend. Dry type exhaust silencer, BSP threaded tails. Dry type exhaust silencer, BSP threaded tails, for BetaGen 26, 33, 40 and 49	
12 Volt starter battery 120Ah and 1 metre battery leads (up to BetaGen 33). 12 Volt starter battery 180Ah and 1 metre battery leads for BetaGen 40 & 49.	
70 Amp insulated battery charging alternator and fully insulated return DC electrics. (Included as standard on BetaGen 26, 33, 40, & 49). (Not available on BetaGen 4/2 & 6/2).	
Remote control: “RSM” push button start module and hour meter supplied for local installation and “LPM” push button start module supplied for remote installation, (in lieu of standard start modules) with module for speed sensing installed in generator terminal box and pre-wired by Beta Marine Ltd.	
Extension cable, either for start module or between remote modules, per metre	
3 Metres of flexible ducting for cooling air outlet x 125mm diameter	
Alternator drive <b>belt guard</b> (front end). <b>Required for Lloyds specification.</b>	
Double walled (sheathed) fuel injection pipes, <b>required for Lloyds specification.</b>	BetaGen 17 to BetaGen 21
	BetaGen 26 to BetaGen 33
Flexible fuel hoses, flame retardant type with class ‘type’ approved material, <b>required for Lloyds specification.</b>	

For 'Lloyds Register Witness Test' of complete generating set in our factory. This is witness test only with type approved engine, not full class survey.

Packing Case already included with BetaGen models.

**Notes:**

a) Please note that on the BetaGen 26, 33, 40 & 49 are supplied with insulated electrics, the control module has key start/stop and a mandatory hour meter is also supplied loose, except remote control option.

b) Keel / box cooled versions are available at the same prices as indicated above.

For operation in Ship's engine room at 45°C the outputs should be de-rated – 8% for naturally aspirated engines and 11% for turbocharged engines.

c) The BetaGen 4/2 and 6/2 are unity power factor machines.

d) A copy of the 'Lloyds Register Design Appraisal document' can be supplied free of charge.

e) 60Hz versions are available, ratings and prices will be provided on request.

We reserve the right to change specifications without notice.

All goods are offered and supplied in accordance with our current "General Terms of Tender and Sale".