



**RRP October 2022 Rev 01-i2**  
**£ Sterling Ex VAT**

### BetaSet “Open” specification;

- Beta Marine water cooled ‘Kubota’ based diesel engine, naturally aspirated<sup>^</sup>, mechanically governed<sup>^^</sup> at 1500 RPM for operation in accordance with ISO 3046\* for marine diesel generating sets.
- Heat exchanger cooling complete with cupronickel tube stack and phosphor bronze end caps.
- Engine comes with sacrificial anode, fresh water and sea water pumps. Water cooled exhaust manifold, water injection exhaust bend, sump drain pump, fuel, oil, and air filtration. CE approved fuel supply & return flexible connection hoses.
- 12 volt electric start system and stop solenoid valve, 45 Amp starter battery alternator with 2 wire grounded earth standard on BetaSet / BetaGen 7, 10, 12, 14 & 21 or a 70 Amp alternator with insulated return standard on BetaSet / BetaGen 26, 33, 40, 40T, 49 & 49T
- PSM720 Control Module – c/w start and stop buttons, hour meter and indicators with automatic shutdown for low oil pressure and or high coolant temperature, standard on BetaSet / BetaGen 7, 10, 12, 14 & 21. Or EPM72 Control Module – c/w key start, separate hour meter and indicators with automatic shutdown for low oil pressure and or high coolant temperature standard on BetaSet / BetaGen 26, 33, 40, 40T, 49 & 49T

<sup>^</sup>The BetaSet- BetaGen 40T & 49T are turbocharged <sup>^^</sup>The BetaSet – BetaGen 49 & 49T are mechanically governed with an electronic actuator. \*For operation in ambient temperature of 45° C the output will be de-rated by 8%. Please contact Beta Marine for further information.

Keel & Radiator cooled options are available at no additional cost. Bespoke specifications/requirements can be quoted for upon request

### BetaGen “Super Silence” specification;

- As per our standard “open” BetaSet specification plus;
- Housing manufactured from ‘zintec’ steel and ‘powder coat’ painted.
- Panels bolted together for rigidity & strength.
- Panels are lined with high quality 38mm flame retardant acoustic foam material (includes 4mm polymeric barrier), held in place with high temperature silicon adhesive. This facilitates a 60dB(A) noise level when measured at 7m under “free field” conditions.
- Quick release service panels facilitate easy, simple and unobstructed access to engine, generator & ancillaries
- Acoustic attenuating ducts provide air flow in and out of enclosure c/w ventilation fan. Design allows the engine/generator unit to rest on flexible mountings within the enclosure.

**Your needs...**

**...our tailored solutions.**



- Standard voltage is 230v single phase, 400v 3 phase, other voltages are available upon request.
- The marine rated “generator” operates at 0.8pf, and 50 Hz, 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.
- The engine and generator are close coupled together and mounted on steel feet with marine failsafe anti-vibration mountings ensuring isolation.
- Each generating set is “full load” tested in accordance with our quality document QA023.
- Finished in Beta red paint.
- Supplied with test certificate & operators manual & 12 months warranty from date of commissioning or 18 months from date of dispatch – whichever comes first.
- Tri-wall packed on a wooden base.



- All ancillary / service connections are brought out of the enclosure including Battery +ve, -ve terminals, fuel inlet & return, cooling water inlet and wet exhaust outlet.
- Finished in Beta off white paint
- Packed in a wooden case.

**£ - 4 - POLE 0.8 P.F. MAXIMUM kVA @ 50Hz (1500 RPM)**

1 Phase kVA	3 Phase kVA	Open BetaSet Model	£ RRP ex VAT	Super Silence BetaGen Model	£ RRP ex VAT	EU Compliance	Base Engine
5.7 —	— 6.7	BetaSet 7	7700	BetaGen 7	10120	EU.2016/1628 Stage V	BD1105BG
8.5 —	— 9.6	BetaSet 10	7820	BetaGen 10	10240	EU.2016/1628 Stage V	BD1105BG
11.1 —	— 12.8	BetaSet 12	8510	BetaGen 12	11025	EU.2016/1628 Stage V	BV1505BG
13.5 —	— 15.0	BetaSet 14	10125	BetaGen 14	13055	EU.2016/1628 Stage V	BD1703BG
18.2 —	— 20.5	BetaSet 21	11030	BetaGen 21	14200	EU.2016/1628 Stage V	BV2203BG
25.0 —	— 26.0	BetaSet 26	13660	BetaGen 26	17530	97/68/EU Stage IIIA	BV3300BG
29.0 —	— 33.0	BetaSet 33	14010	BetaGen 33	17880	97/68/EU Stage IIIA	BV3300BG
33.2 —	— 39.5	BetaSet 40	14720	BetaGen 40	18590	Not Available	BV3800BG
38.0 —	— 42.0	BetaSet 40T	18210	BetaGen 40T	22080	Not Available	BV3800TBG
40.0 —	— 45.0	BetaSet 49	15760	BetaGen 49	19630	Not Available	BV3800BG
47.3 —	— 52.0	BetaSet 49T	19140	BetaGen 49T	23010	Not Available	BV3800TBG

**The kVA outputs detailed are maximum rated outputs available for one hour, continuous ratings are 91% of these figures. kW outputs are 80% of the kVA ratings, generators being 0.8 p.f.**

*Emissions - constant speed generator set engines: For marine application there are currently no regulations applicable to engines under 19kW, nor to engines for vessels on inland waterways where the vessel is under 20m in length or less than 100m<sup>3</sup> volume. For seagoing applications there are currently no regulations applicable to engines under 130kW where ships are governed by the IMO requirements. Local requirements / legislation may affect these statements*

**£ INSTALLATION OPTIONAL EXTRAS**

1		£ RRP ex VAT
a	Steel base frame* - BetaSet 7, 10, 12 & 14	185
b	Steel base frame* - BetaSet 21, 26, 33, 40, 40T, 49 & 49T	238
c	Water inlet kit - Seacock with stainer & 2m of pipe with clips, BetaSet - BetaGen 7, 10, 12, 14 & 21	305
d	Water inlet kit - Seacock with stainer & 2m of pipe with clips, BetaSet - BetaGen 26, 33, 40, 40T, 49 & 49T	350
e	Wet exhaust silencer kit, 50mm diameter c/w 3m hose for BetaSet - BetaGen 7, 10, 12, 14 & 21	265
f	Wet exhaust silencer kit, 60mm diameter c/w 3m hose for BetaSet - BetaGen 26,33, 40, 40T, 49 & 49T	419
g	Dry exhaust outlet including exhaust elbow & flexible stainless steel bellows - in lieu of water injection bend for BetaSet - BetaGen 7, 10, 12, 14 & 21	87
h	Dry exhaust outlet including exhaust elbow & flexible stainless steel bellows - in lieu of water injection bend for BetaSet - BetaGen 26, 33, 40, 40T, 49 & 49T	138
i	Dry exhaust silencer, BSP threaded tails for BetaSet - BetaGen 7, 10, 12, 14 & 21	72
j	Dry exhaust silencer, BSP threaded tails for BetaSet - BetaGen 26, 33, 40, 40T, 49 & 49T	142
k	3m of flexible ducting for cooling air outlet, 125mm diameter - BetaGen 7, 10 & 12	110
l	Diesel fuel filter -water separator	63

\* Not required with BetaGen "Super Silence" acoustic housings.

**£ ELECTRICAL OPTIONAL EXTRAS - NB Minimum recommended battery; Not Included.**

<b>2</b>		<b>£ RRP ex VAT</b>
12v	70Ah 450CCA BetaSet - BetaGen 7 & 10	✓
12v	70Ah 620CCA BetaSet - BetaGen 12, 14, & 21	✓
12v	180Ah 1050CCA BetaSet - BetaGen 26, 33, 40, 40T, 49 & 49T	✓
<b>2</b>		<b>£ RRP ex VAT</b>
a	2 x 1m 120 Amp battery leads for BetaSet - BetaGen > 33	63
b	2 x 1m 180 Amp battery leads for BetaSet - BetaGen 40, 40T, 49 & 49T	106
c	DSE3110 control module in lieu of standard PSM720. BetaSet - BetaGen 7, 10, 12, 14 & 21	FOC*
d	Insulated return engine wiring in lieu of grounded negative with 12v 70 Amp battery charging alternator and key start module EPM72 in lieu of standard PSM720. BetaSet - BetaGen 7, 10, 12, 14 & 21.	422
e	Insulated return engine wiring in lieu of grounded negative with 12v 70 Amp battery charging alternator and Deep Sea module DSE3110 in lieu of standard PSM720. BetaSet - BetaGen 7, 10, 12, 14 & 21.	422
f	24v electric starting with 55 Amp battery charging alternator including insulated return engine wiring and system in lieu of standard. BetaSet - BetaGen 7, 10, 12 & 21 (not available on BetaSet-BetaGen 14).	2770
g	24v electric starting with 55 Amp battery charging alternator with insulated return engine wiring and system in lieu of standard. BetaSet - BetaGen 26, 33, 40, 40T, 49 and 49T.	2400
h	Local and remote starting with standard grounded negative system. Push button start module RSM72 with separate hour meter, in lieu of standard, both for local mounting and remote module LPM72 <sup>^</sup> . Module for speed sensing installed and pre-wired on the generator set. BetaSet - BetaGen 7, 10, 12, 14 & 21.	485
i	Local and remote starting including insulated return engine wiring. Push button start module RSM72 with separate hour meter, in lieu of standard, both for local mounting and remote module LPM72 <sup>^</sup> . Module for speed sensing installed and pre-wired on the generator set. BetaSet - BetaGen 7, 10, 12, 14 & 21.	756
j	Local and remote starting with insulated return engine wiring. Push button start module RSM72 with separate hour meter, in lieu of standard, both for local mounting and remote module LPM72 <sup>^</sup> . Module for speed sensing installed and pre-wired on the generator set. BetaSet - BetaGen 26, 33, 40, 40T, 49 and 49T.	386
k	Local and remote starting with standard grounded negative system. Deep Sea module DSE7310 with integral hour meter, in lieu of standard, for local mounting and second module DSE7310 for remote mounting <sup>^</sup> . Speed sensing via fuse installed in the generator terminal box. BetaSet - BetaGen 7, 10, 12, 14, & 21.	1460
l	Local and remote starting with insulated return engine wiring. Deep Sea module DSE7310 with integral hour meter, in lieu of standard, for local mounting and second module DSE7310 for remote mounting <sup>^</sup> . Speed sensing via fuse installed in the generator terminal box. BetaSet - BetaGen 7, 10, 12, 14, 21, 26, 33, 40, 40T, 49 and 49T. <b>NB.</b> For BetaSet - BetaGen 7, 10, 12, 14 & 21 it will be necessary to add item e.	1460
m	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 5m	82
n	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 10m	120
o	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 15m	164
p	Interconnection cable for use with DSE3110 & DSE7310 - custom lengths £ per meter	27
q	Moulded Case Circuit Breaker with female external power socket and IP56 protection - Single phase & 3 phase options available	POA

\* Free of charge option

<sup>^</sup> Local control modules are supplied loose & complete with a 3m interconnection cable for local installation, On BetaGen models this can be installed within the housing wall upon request. When an additional remote control module is required it is supplied loose with no interconnection cable which is an optional extra and tailored to the length required for the installation within the vessel please refer to section 2 items h, i, j, k & l.

**£ ELECTRICAL OPTIONAL EXTRAS - NB Minimum recommended battery; Not Included.****2****£ RRP ex VAT**

Our standard start modules (PSM720, EPM72, RSM72 & LPM72) either do not sense the generator output voltage or if they do it is transformed to a safe level. As alternatives we offer the Deep Sea module 3110 in lieu of the PSM720 or EPM72 and the 7310 Mk II in lieu of the RSM72. For the remote module a second 7310 Mk II will replace the LPM72. Deep Sea modules mentioned above are for engine control and (other than speed sensing via a voltage tapping) they are not set up to monitor or control the AC output.

**£ ADDITIONAL REGULATORY OPTIONS****3****£ RRP ex VAT**

a	Front end alternator guard	226
b	Double walled (sheathed) fuel injection pipes for BetaSet - BetaGen 21, 26 & 33	1920
c	Flexible fuel hoses, flame retardant with class type approved material	174

SUPPLEMENT ITEMS ARE STRICTLY NETT

**£ SHIPPING - SUPPLEMENTS****4****£ RRP ex VAT**

a	BetaSet Packing Case - Up to BetaSet 12*	244
b	BetaSet Packing Case - BetaSet 14 up to BetaSet 49T*	310
c	2/3 Day delivery in UK mainland**	147

\* Included for all BetaGen variants. \*\* Overseas, Highland & Islands - Price On Application.

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.

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