



**RRP October 2022 Rev 02-i3
£ Sterling Ex VAT**

BetaSet “Open” specification;

- Beta Marine water cooled ‘Kubota’ based diesel engine, naturally aspirated, mechanically governed at 3000 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. Optional 70 Amp starter battery alternator with insulated return
- 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 voltage is 230v single phase, 400v 3 phase, other voltages are available upon request.

Your needs...

...our tailored solutions.



- “Generator” single phase machines are rated for unity power factor loads 3 phase are rated at 0.8pf, all AC alternators have 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.

**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.



- 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.

£ - 2 - POLE MAXIMUM kVA @ 50Hz (3000 RPM)

1 Phase kVA	3 Phase kVA	Open BetaSet Model	£ RRP ex VAT	Super Silence BetaGen Model	£ RRP ex VAT	EU Compliance	Base Engine
4.0 *	—	BetaSet 4/2	5410	BetaGen 4/2	7300	Not Required**	BZ482
6.5 *	—	BetaSet 6/2	5630	BetaGen 6/2	7520	Not Required**	BZ482
7.4* —	— 13.0	BetaSet 11/2	7150	BetaGen 11/2	9620	Not Required**	BD722
11.1* —	— 21.0	BetaSet 22/2	8230	BetaGen 22/2	10750	Not Available	BV1505
14.8* —	— 25.5	BetaSet 25/2	8430	BetaGen 25/2	10950	Not Available	BV1505

* These are unity power factor machines. kVA = kW

The kVA outputs detailed are maximum rated outputs available for one hour, continuous ratings are 91% of these figures.

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 100m³ 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 4-2, 6-2, & 11-2	127
b	Steel base frame* - BetaSet 22-2 & 25-2	185
c	Water inlet kit, Seacock with stainer & 2m of pipe with clips, BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	305
d	Wet exhaust silencer kit, 50mm diameter c/w 3m hose for BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	265
e	Dry exhaust outlet including exhaust elbow & flexible stainless steel bellows - in lieu of water injection bend for BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	87
f	Dry exhaust silencer, BSP threaded tails for BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	72
g	3m of flexible ducting for cooling air outlet, 125mm diameter - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	110
h	Diesel fuel filter -water separator	63

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

2		£ RRP ex VAT
12v	70Ah 450CCA BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	✓
2		£ RRP ex VAT
a	2 x 1m 120 Amp battery leads for BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2	63
b	Control module option, Deep Sea DSE3110 in lieu of standard push button module PSM720 BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2.	FOC*
c	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 4/2, 6/2, 11/2, 22/2 & 25/2.	422
d	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 4/2, 6/2, 11/2, 22/2 & 25/2.	422
e	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 ^.	485
f	Module for speed sensing installed and pre-wired on the generator set. BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2.	756
g	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 ^.	1460
h	Module for speed sensing installed and pre-wired on the generator set. BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2.	1882
i	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 ^.	82
j	Speed sensing via fuse installed in the generator terminal box. BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2.	120
k	Local and remote starting including 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 ^.	164
l	Speed sensing via fuse installed in the generator terminal box. BetaSet - BetaGen 4/2, 6/2, 11/2, 22/2 & 25/2.	27
m	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 5m	POA
	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 10m	
	Interconnection cable for use with PSM720 & EPM72 local control modules or RMS72 local & LPM72 remote control modules - 15m	
	Interconnection cable for use with DSE3110 & DSE7310 - custom lengths £ per meter	
	Moulded Case Circuit Breaker with female external power socket and IP56 protection - Single phase & 3 phase options available	

^ 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 e, f, g & h

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	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 - BetaSet* 4/2, 6/2, 11/2, 22/2 & 25/2	244
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.

Beta Marine Limited, Davy Way, Waterwells, Quedgeley, Gloucester, GL2 2AD. UK.

Web: www.betamarine.co.uk

Email: sales@betamarine.co.uk

Tel: + 44 (0) 1452 723 492