



**STAUNCH
MACHINERY**

— www.staunchmachinery.com —

POWER SOLUTIONS CATALOGUE

POWER SOLUTIONS PROVIDER TO OVER 60
COUNTRIES WORLDWIDE



**A LEADING
POWER
SOLUTIONS
PROVIDER TO
OVER 60
COUNTRIES
WORLDWIDE**



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01 ABOUT STAUNCH

Staunch Machinery L.T.D. is the beating heart of AL-Nahda Industrial Group. Our long standing presence in the manufacturing of Construction Equipment and related products, combined with meeting our customers' needs in an ever changing industry, has made Staunch Machinery one of the leading companies in its domain around the MENA (Middle East North Africa) Region and Australia.

Our extensive experience in the manufacturing of construction equipment is the key to our success. Our new industrial group currently holds one of the largest ranges of construction equipment under the exclusive brand name of Staunch Machinery. You can find our products across the globe through our partners in Asia, Africa, Europe, America and Australia.

All of our products are locally produced and finished with the company trade mark colours, Orange and Grey. This product range includes, but is not limited to: Asphalt Cutters, Concrete Mixers, Dumpers, Lighting Towers and Scaffolding.

Our dedicated team of Engineers and Manufacturers are highly skilled individuals working to produce only the best the industry can offer. All equipment produced is carefully analyzed by our Research & Development department and personnel. Their role is to gather feedback from our customers around the world in order to keep up with the needs of contractors and operators. They also test quality components to come up with well crafted pieces of machinery. This constant development and growth has culminated in the latest division of Staunch Machinery which is Staunch Power Generation.

The image features a large, orange industrial machine on the left side, with the word "STAUNCH" written vertically in white capital letters. Above the first few letters of "STAUNCH" is a small circular logo containing a stylized "S" and "M". The background is a blurred view of several large, grey industrial power generation units, likely generators or engines, arranged in rows.

STAUNCH[®]

STAUNCH POWER GENERATION

Over the past decade Staunch Machinery has grown to become a major player in the Power Generation industry in the MENA region and experiencing year on year growth in Australia and the Pacific region. This growth has attracted some of the worlds leading suppliers in the Power generation industry to partner with Staunch on a global scale.

In 2013, Staunch became the sole distributor of Yanmar engines in Lebanon. This has allowed us to offer our customers one of the highest quality Industrial Engines in many of our power generation sets. As a quality oriented company, one of Staunch's primary purposes is to sat-isfy our customer's requirement for energy in the most efficient and effective way possible, whilst keeping their investment costs as low as possible. In addition to Staunch's standard range manufactured products, we also offer a comprehensive range of Generator sets and Power solutions. Among these are: Prime Power, Standby Power, Power Plants, Medium Voltage Power Solutions, as well as being able to offer a comprehensive rental program that fits your power needs.

In 2017, Staunch & Himoina signed an agreement to develop joint power plant project activities in the MENA region. Staunch's wide distribution network, covering over 60 countries, allows for a successful joint project of this scale. This marks a major step advance in for Staunch in being able to deliver large scale power projects across the globe.

MANUFACTURING PROCESS

Research & Development



Staunch Machinery defines Research and Development (R&D) through two connected processes:

Research: Generating new knowledge and ideas that will benefit and expand our marketplace.

Development: Turning these ideas into usable products suitable for the retail market.

Staunch machinery undertakes R&D in order to develop new products, services, and/or procedures that will help expand its operations globally.

Design



Staunch's products go through an intensive design process. Our Design Department has a method that is vigorous yet straight forward, with the first step of the process being Analysis. Staunch's team analyzes the product brief and generates preliminary concepts based on compiled research. Concepts are then sent to the 3D Synthesis Department, whereby a 3D CAD model of the product is produced to make sure that the resulting prototype will comply with the quality and applicability safety standards from around the world. The final stage in the design process is the evaluation stage. This is where the team meets with the heads of the department, evaluating the results prior to the development of the prototype.

Prototype



The prototype stage is where the product development team creates an early sample of the product. Prototyping is essential to stress testing, it serves to provide blueprints for a live, practical working system rather than a theoretical one. Creating a prototype is the critical step between the formalization and the evaluation of an approach.

Testing



Staunch Power Generation tests all its products vigorously before releasing them into market. Each generator undergoes a 1 hr factory load test at 25, 50, 75, 100, and 110% duty load. During this load test, all protection devices and control functions are simulated and checked as part of factory testing regulations; a test certificate is then provided when the generator is shipped.

Production



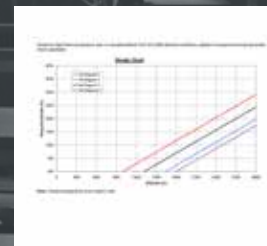
Staunch Machinery prides itself on delivering quality time efficient products in each of their relative fields; as such Staunch produces a large number of its products in its own facilities in Lebanon, Turkey, India, and China. With a range of products covering almost all aspects of construction being produced under specific guidelines created by Staunch for its partners globally. Staunch is considered a holder of one of the widest range of construction related products in the region.

Production Technology



Staunch Machinery strives to maintain a high-standard process and in doing so, works towards a near perfect finish in its production phase. In doing so, we assemble our generator sets to the highest of standards using high-tech laser cutters and metal benders; the resulting bare metal canopy is then coated with our long-lasting and certified Powder Coating and branded in Staunch colors.

Power De-rating



When operating generators between 5 and 40°C degrees in temperature and below an altitude of 1000m, the generator set can output 100% power. Any operation outside of this temperature and altitude range results in a loss of power output from the generator. Staunch Machinery ensures that all relevant calculations have been accounted for when assessing where its generators are going to be used. This ensures that the end user receives a generator that has had the Power Derating accounted for and receives a generator which can perform optimally in the particular environment that it has been placed in.

Standards



All our Generator sets comply with the international standards of design and quality. Some of these standards are:

- ISO8528 (GB/T2820-97)
- ISO3046
- EN60034
- BS5000
- IEC34-1
- VDE0530
- NEMA MG1-23
- GB755
- CSA22-2
- AS/NZS3010
- AS/NZS3000
- AS/NZS1359
- AS/NZS4024

They also comply with the requirements of ISO9001, CE and TUV quality and safety standards.

PRODUCTION HIGHLIGHTS

Staunch machinery works towards a near perfect finish in its production phase along with a high-standard production process, as such, we assemble our generator sets to the highest of standards using our high-tech laser cutters, and metal benders, the resulting canopy is then topped with our long-lasting powder finish coat to and branded with staunch colors.



Generator Production Overview

DISTRIBUTION NETWORK

Staunch Machinery's distribution network spreads across the globe to helping provide on demand power where ever it may be required. You can find Staunch's official distributors in almost every continent worldwide; in countries such as Australia, Uganda, Angola, Togo, Yemen.

BRANDS STAUNCH CARRIES

Staunch Machinery is proud to announce that it is an exclusive distributor of YANMAR, Marelli Motori, HIMOINSA and HATZ DIESEL in Lebanon. Staunch Machinery is also an exclusive OEM manufacturer of PERKINS. Other brands Staunch carries under its belt include: FPT IVECO, CUMMINS, VOLVO PENTA and more.



HIMOINSA
THE ENERGY

STAMFORD



STANDARDS



Quality and Safety

All generators comply with international design and quality standards such as ISO 8528 (GB/T2820), ISO 3046, EN60034, BS5000, IEC34-1, VDE0530, NEMA MG1-23, GB755, CSA22-2, AS1459, as well as the requirements of ISO9001, CE and TUV quality and safety management standards.

Power Derating

Below 40C in temperature and an altitude of 1000m, the generator set can output 100% power. When the generator works in high temperatures and altitudes : derate 2.0% per 300m elevation above 1000m up to a maximum elevation of 2450 mm. if the altitude is more than 2450 mm, please contact us or our dealer for help. Temperature: derate 4.0% per 5C temperature above 40C.

Products

Staunch offers a comprehensive range of Generator Sets to provide continuous prime or standby power. These include:

- Silent type
- Open type
- Trailer type and
- Lighting Towers

The Generator Sets are normally supplied for 380/400/415/514 Volt, 3phase, 4 wire, 50/60Hz power. Other voltage and frequency settings are also available, based on customers' requirements.

Warranty

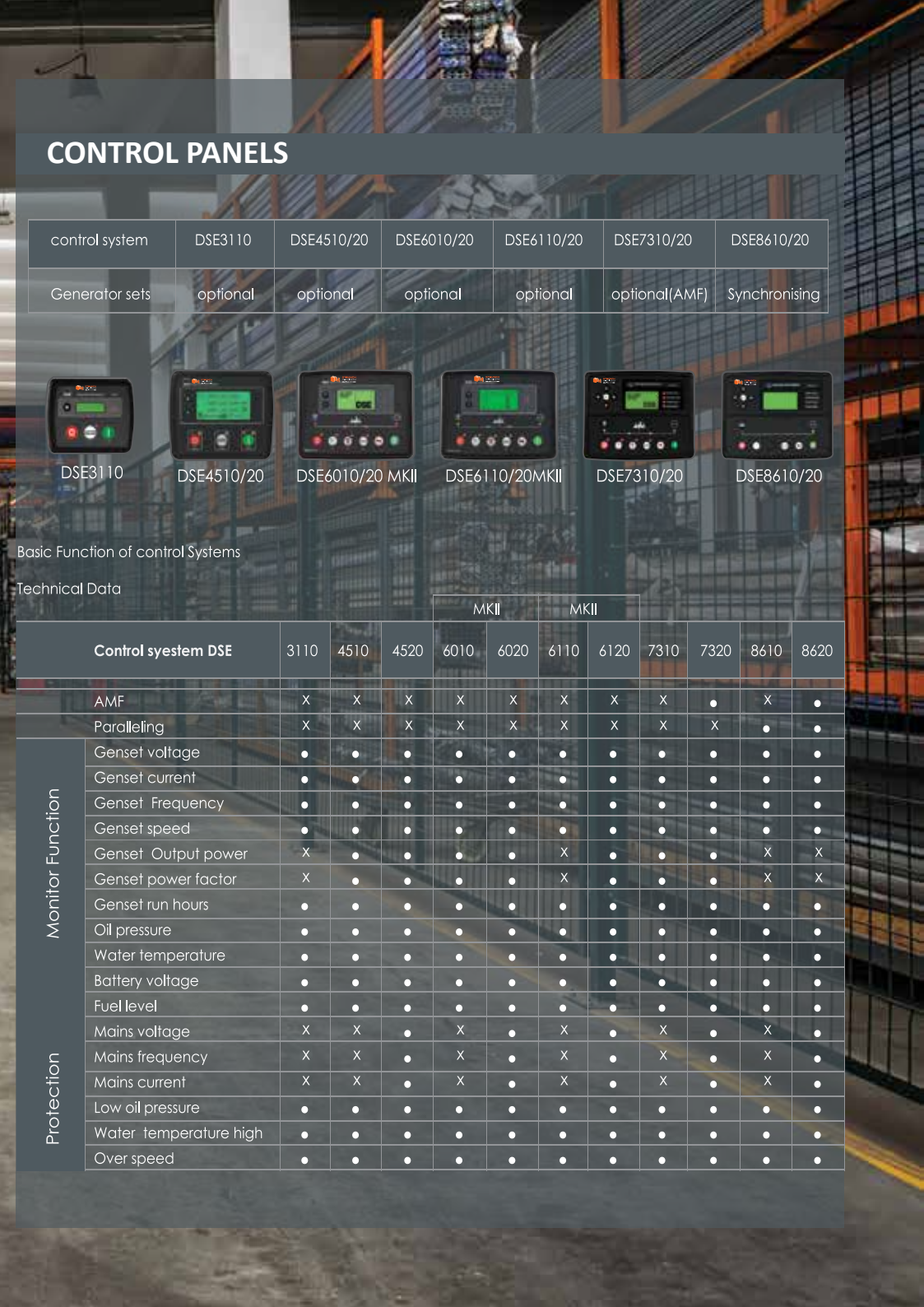
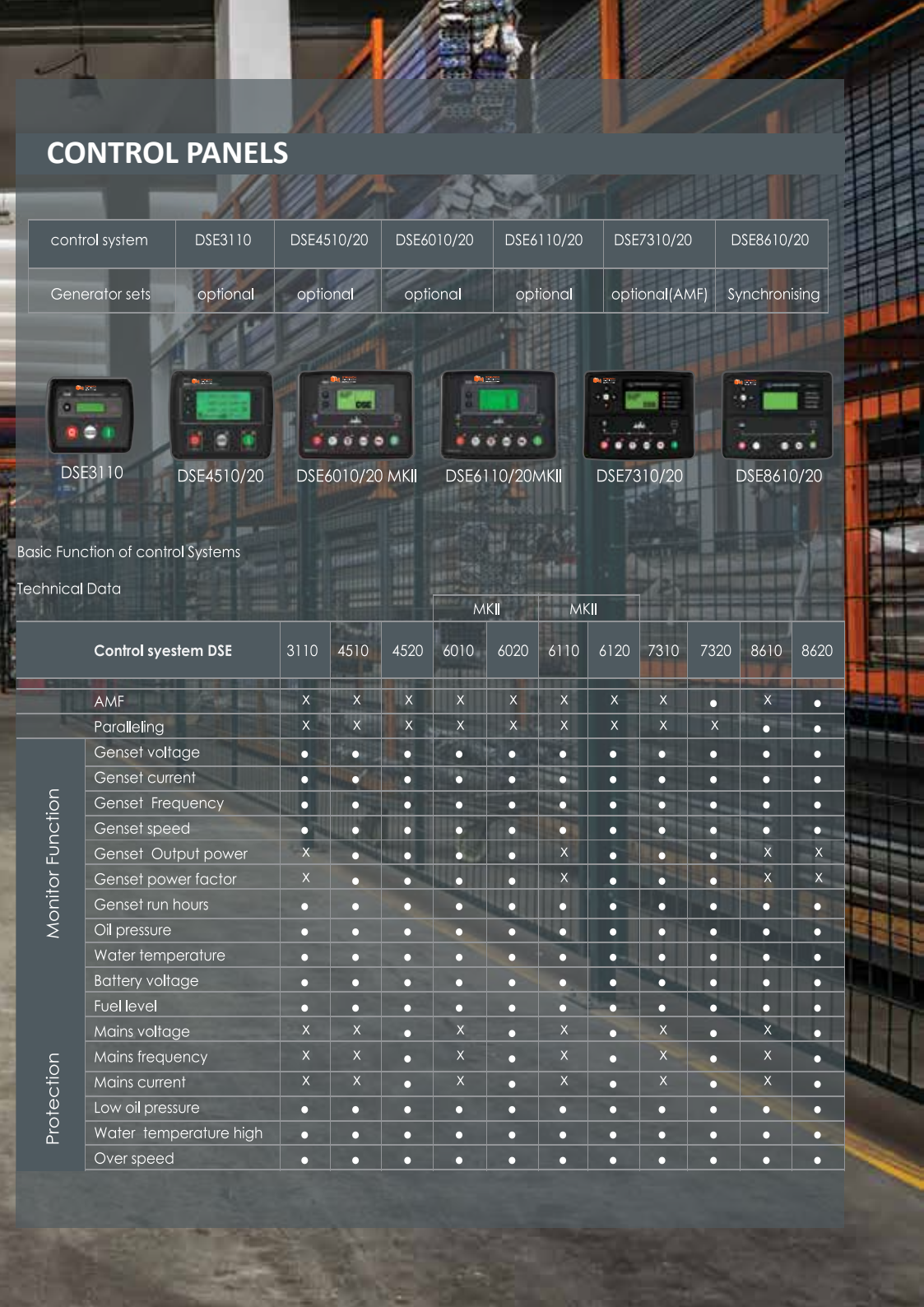
Staunch Machinery offers a standard Warranty of 1000 working hours and/or 12 months from B/L shipping date; whichever comes first. Warranty will be void if the customer breaches the instructions outlined in the Operation and Maintenance Manual. This is supported by our Service and Warranty guide.

Control System

Staunch Generator Sets are equipped with Deepsea control systems manufactured in the UK, as standard. The control system is easy to operate, reliable, safe, and powerful in its functions with a start control model and remote control system.



A large orange and grey STAUNCH generator unit is shown in a warehouse setting. The unit features the STAUNCH logo, 'POWERED BY YANMAR', and 'MarelliMotori' branding. A close-up inset shows the control panel with a digital display, buttons, and safety warnings.

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STAUNCH

TRANSFER SWITCHES ATS & TOTALIZING PANELS

Control Panels and ATS

At Staunch we use advanced controller systems for our Generator Sets designed and manufactured to the highest standards and quality. These Control Panels and ATS's use state of the art technology which efficiently control and monitor our Generator Sets.

- We Offer a comprehensive line of Automatic transfer switch panels, Totalizing panels and load management systems.



Key Specifications/Special Features:

- Effectively control and monitor Generator Sets
- User-friendly interface design
- Simple and easy to use
- Fully Functional with extended service life
- Cost effective and economical
- Integrated with two independent modules – PHG

YANMAR ENGINE

Yanmar Co. Ltd. is a Japanese diesel engine manufacturer with more than 100 years of history. Manufacturing engines that are used in a wide range of applications, including sea-going vessels, construction equipment, agricultural equipment and generator sets. Yanmar powered Gen Sets are known for their high levels of durability, and performance in extreme weather conditions.

They produce lightweight, compact, high-power diesel engines, gas engines, and gas tur-bines that have superior combustion performance and reliability. Staunch is a certified OEM manufacturer of Yanmar powered generator sets ranging rom 9KVA, and the official dis-tributor of Yanmar engines and power products in Lebanon, Tanzania, Kongo-Kinshasa and more.

STAUNCH IS AN EXCLUSIVE DISTRIBUTOR OF YANMAR ENGINES IN LEBANON.

		ENGINE SPECIFICATIONS						OPEN TYPE			SILENT TYPE		CONTROL PANEL
GENSET		ENGINE YANMAR				CYLINDER		FUEL	DIMENSIONS & WEIGHT		TYPE & DIMENSIONS		MODEL
Type	Esp Kva	Prp Kva	StandBy Kw	Engine Model	Type	Cubic/ Cap.	Stroke	Consumption @75% load	LxWxH cm	KG	Canopy Type	LxWxH cm	Type
STYG 7.5	8	7.6	6.71	3TNV70	3L	0.85L	74	1 Lit/hr	125x60x95	400	STS	160x70x122	AutoDSE 4510/20
STYG 9	10	10.2	9	3TNV76	3L	1.13L	82	1.8 Lit/hr	125x60x95	400	STS	160x70x122	Auto. DSE 4510/20
STYG 15	15	16.6	14.9	3TNV88	3L	1.64L	90	2.5 Lit/hr	145x60x100	400	STS	200x75x122	Auto. DSE 4510/20
STYG 20	22	24.9	21.9	4TNV84	4L	2L	90	3.8 Lit/hr	145x60x100	460	STS	200x75x122	Auto. DSE 6110/20
STYG 35	40	38.4	33.8	4TNV98	4L	3.3L	110	5.7iLit/hr	170x70x115	520	STS	228x98x132	Auto. DSE 6110/20
STYG 45	50	47.1	41.5	4TNV98T	4L	3.3L	110	7 Lit/hr	170x70x115	800	STS	228x98x132	Auto. DSE 6110/20
STYG 60	65	63.6	56	4TNV106T GGE	4L	4.4L	125	8.9 Lit/hr	170x70x115	900	STS	228x98x132	Auto. DSE 6110/20

V SERIES



POWERED
BY YANMAR



PERKINS ENGINE

POWERED BY



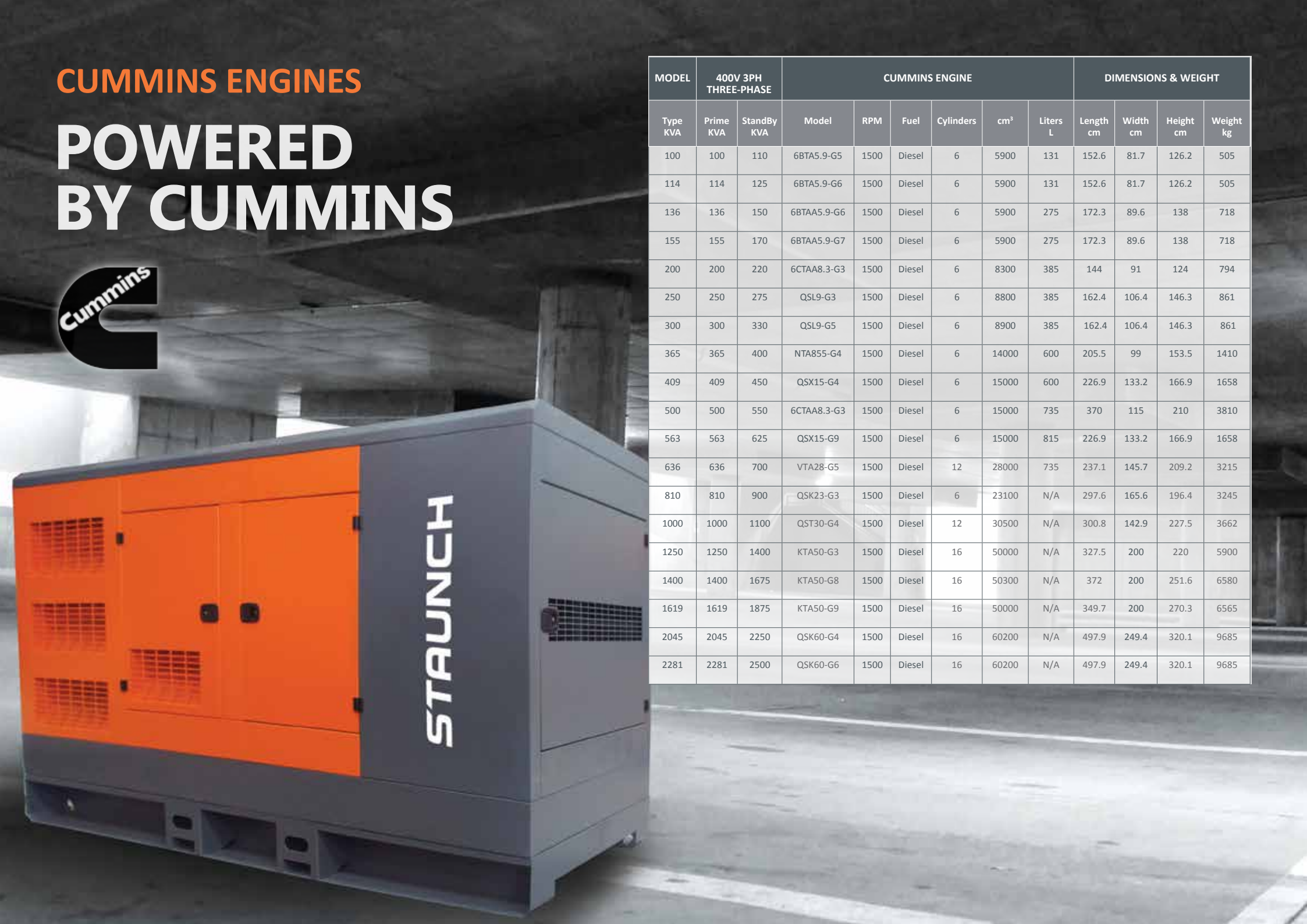
		ENGINE SPECIFICATIONS						OPEN TYPE			SILENT TYPE		CONTROL PANEL
GENSET		ENGINE PERKINS			CYLINDER			FUEL	DIMENSIONS & WEIGHT		TYPE & DIMENSIONS		MODEL
Type	Esp Kva	Prp Kva	Stand-By Kw	Engine Model	Type	Cubic/ Cap.	Stroke	CONS Lt/hr @75% load	LxWxH cm	KG	Canopy Type	LxWxH cm	Type
STPG 9	10	9	8	403A-11G	3L	1.13L	77	2lit/hr	125x60x95	400	STS	160x70x122	Auto. DSE 4510/20
STPG 13	15	13	12	403A-15G	3L	1.5L	84	5.5lit/hr	145x60x100	400	STS	200x75x122	Auto. DSE 4510/20
STPG 20	22	20	17.6	404A-22G	4L	2.21L	84	4lit/hr	145x60x100	460	STS	200x75x122	Auto. DSE 4510/20
STPG 30	33	30	30	1103A-33G	3L	3.3L	105	5.6lit/hr	170x70x115	520	STS	228x98x132	Auto. DSE 6110/20
STPG 45	50	45	40	1103A-33TG1	3L	3.3L	105	8.2lit/hr	170x70x115	800	STS	228x98x132	Auto. DSE 6110/20
STPG 60	66	60	52.8	1103A-33TG2	3L	3.3L	105	10.4lit/hr	170x70x115	800	STS	228x98x132	Auto. DSE 6110/20
STPG 80	80	80	70.4	1104A-44TG2	4L	4.4L	105	14lit/hr	200x70x100	1080	STS	266x105x150	Auto. DSE 6110/20
STPG 100	110	100	88	1104C-44TAG2	4L	4.4L	105	17.1lit/hr	200x70x100	1150	STS	266x105x149	Auto. DSE 6110/20
STPG 135	150	135	120	1106A-70TG1	6L	5.9L	100	22.7lit/hr	240x85x130	1250	STS	350x120x172	Auto. DSE 6110/20
STPG 150	165	150	132	1106A-70TAG2	6L	5.9L	100	24.7lit/hr	240x85x130	1535	STS	350x120x172	Auto. DSE 6110/20
STPG 180	200	180	160	1106C-E66TAG4	6L	6.6L	105	31lit/hr	300x110x155	1660	STS	350x120x172	Auto. DSE 6110/20
STPG 200	220	200	176	1106A-70TAG4	6L	8.7L	116.6	34.7lit/hr	300x110x155	1697	STS	390x140x212	Auto. DSE 6110/20
STPG 250	275	250	220	1506A-E88TAG3	6L	8.7L	116.6	42lit/hr	300x110x155	2252	STS	390x140x212	Auto. DSE 6110/20
STPG 300	330	300	264	1606A-EE-93TAG5	6L	9.3L	117	54lit/hr	350x115x210	2250	STS	480x155x240	Auto. DSE 6110/20
STPG 350	385	350	320	2206A-E13TAG2	6L	12.5L	130	56lit/hr	350x115x210	3366	STS	480x155x240	Auto. DSE 6110/20
STPG 400	440	400	352	2206A-E13TAG3	6L	12.5L	130	62lit/hr	350x115x210	3503	STS	480x155x240	Auto. DSE 6110/20
STPG 455	500	450	400	2506A-E15TAG1	6L	15.2L	137	72lit/hr	350x115x210	3790	STS	480x155x240	Auto. DSE 6110/20
STPG 500	550	500	440	2506A-E15TAG2	6L	15.2L	137	76lit/hr	370x115x210	3950	STS	480x155x240	Auto. DSE 6110/20
STPG 600	660	600	528	2506A-E18TAG1	6L	18.1L	145	82lit/hr	375x155x225	4720	STS	550x200x275	Auto. DSE 6110/20
STPG 650	715	650	572	2506A-E18TAG2	6L	18.1L	145	62lit/hr	375x155x225	4800	STS	550x200x275	Auto. DSE 6110/20
STPG 750	825	750	660	4006TA-G2A	6L	18.1L	145	119lit/hr	430x174x215	6370	STS	600x220x250	Auto. DSE 110/20
STPG 800	880	800	704	4006TA-G3A	6L	22.9L	160	132lit/hr	430x174x215	6370	STS	600x220x250	Auto. DSE 7310/20
STPG 1000	1100	1000	880	4008TA-G2A	8L	30.5L	160	160lit/hr	510x207x232	7550	STS	800x250x280	Auto. DSE 7310/20
STPG 1250	1375	1250	1100	4012-46TWG2A	12L	45.8L	160	196lit/hr	500x180x250	6250	STS	1205x234x268	Auto. DSE 7310/20
STPG 1500	1650	1500	1320	4012-46TAG2A	12L	45.8L	160	246lit/hr	530x220x240	10550	STS	1205x234x268	Auto. DSE 7310/20
STPG 2000	2000	2200	1600	4016TA-G2A	16L	61.1L	160	316lit/hr	587x290x355	15700	STS	1050X330x392+100	Auto. DSE 7310/20

CUMMINS ENGINES

POWERED
BY CUMMINS



MODEL	400V 3PH THREE-PHASE		CUMMINS ENGINE						DIMENSIONS & WEIGHT			
Type KVA	Prime KVA	StandBy KVA	Model	RPM	Fuel	Cylinders	cm ³	Liters L	Length cm	Width cm	Height cm	Weight kg
100	100	110	6BTA5.9-G5	1500	Diesel	6	5900	131	152.6	81.7	126.2	505
114	114	125	6BTA5.9-G6	1500	Diesel	6	5900	131	152.6	81.7	126.2	505
136	136	150	6BTAA5.9-G6	1500	Diesel	6	5900	275	172.3	89.6	138	718
155	155	170	6BTAA5.9-G7	1500	Diesel	6	5900	275	172.3	89.6	138	718
200	200	220	6CTAA8.3-G3	1500	Diesel	6	8300	385	144	91	124	794
250	250	275	QSL9-G3	1500	Diesel	6	8800	385	162.4	106.4	146.3	861
300	300	330	QSL9-G5	1500	Diesel	6	8900	385	162.4	106.4	146.3	861
365	365	400	NTA855-G4	1500	Diesel	6	14000	600	205.5	99	153.5	1410
409	409	450	QSK15-G4	1500	Diesel	6	15000	600	226.9	133.2	166.9	1658
500	500	550	6CTAA8.3-G3	1500	Diesel	6	15000	735	370	115	210	3810
563	563	625	QSK15-G9	1500	Diesel	6	15000	815	226.9	133.2	166.9	1658
636	636	700	VTA28-G5	1500	Diesel	12	28000	735	237.1	145.7	209.2	3215
810	810	900	QSK23-G3	1500	Diesel	6	23100	N/A	297.6	165.6	196.4	3245
1000	1000	1100	QST30-G4	1500	Diesel	12	30500	N/A	300.8	142.9	227.5	3662
1250	1250	1400	KTA50-G3	1500	Diesel	16	50000	N/A	327.5	200	220	5900
1400	1400	1675	KTA50-G8	1500	Diesel	16	50300	N/A	372	200	251.6	6580
1619	1619	1875	KTA50-G9	1500	Diesel	16	50000	N/A	349.7	200	270.3	6565
2045	2045	2250	QSK60-G4	1500	Diesel	16	60200	N/A	497.9	249.4	320.1	9685
2281	2281	2500	QSK60-G6	1500	Diesel	16	60200	N/A	497.9	249.4	320.1	9685



FPT IVECO ENGINE

POWERED
BY FPT IVECO



MODEL	400V 3PH THREE-PHASE		FPT ENGINE						DIMENSIONS & WEIGHT			
Type KVA	Prime KVA	Stand- By KVA	Model	RPM	Fuel	Cylinders	cm ³	Liters L	Length cm	Width cm	Height cm	Weight kg
STG G30FPT	30	33	F32AM1A	1500	Diesel	4	3200	80	150	70	109	565
STG G40FPT	42	46	N45AM1A	1500	Diesel	4	3200	160	175	80	123	662
STG G50FPT	50	55	N45AM1A	1500	Diesel	4	3200	160	175	80	123	771
STG G60FPT	65	71.5	N45SM1A	1500	Diesel	4	4500	160	175	80	131	778
STG G80FPT	80	88	N45SM2A	1500	Diesel	4	4500	220	200	80	131	893
STG G100FPT	105	115	N45TM2A	1500	Diesel	4	4500	220	200	80	138.5	988
STG G125FPT	125	137	N45TM3	1500	Diesel	4	4500	220	200	80	138.5	988
STG G135FPT	135	148.5	N67SM1	1500	Diesel	6	6700	350	250	100	164	1224
STG G160FPT	160	176	N67TM3A	1500	Diesel	6	6700	350	250	100	164	1349
STG G200FPT	200	220	N67TE2A	1500	Diesel	6	6700	350	250	100	155	1414
STG G250FPT	250	275	CURSOR 87 TE1D	1500	Diesel	6	8700	480	300	120	171.5	2090
STG G300FPT	300	330	CURSOR 10 TE1D	1500	Diesel	6	10300	480	300	120	180	2235
STG G350FPT	350	385	CURSOR 13 TE2A	1500	Diesel	6	12880	480	300	120	180	2415
STG G400FPT	400	440	CURSOR 13 TE3A	1500	Diesel	6	12880	480	300	120	178.5	2520
STG G500FPT	500	550	CURSOR 13 TE7	1500	Diesel	6	12880	480	300	120	78.5	2415
STG G650FPT	613	674	CURSOR 16 TE W	1500	Diesel	6	15900	600	375	155	225	3800



JOHN DEERE ENGINE

POWERED
BY JOHN DEERE



JOHN DEERE



MODEL		400V 3PH THREE-PHASE		JOHN DEERE ENGINE					DIMENSIONS & WEIGHT			
Type KVA	Prime KVA	Stand- By KVA	Model	RPM	Fuel	Cylinders	Displacement Volume (Liter)	Fuel Tank Capacity (liter)	Length cm	Width cm	Height cm	Weight kg
30	30	34	3029DFU29	1500	Diesel	3	2.94	87	180	75	125	500
40	40	44	3029TFU29	1500	Diesel	3	2.94	87	180	75	125	520
70	70	78	4045TF158	1500	Diesel	4	4.52	128	210	80	130	1120
80	80	88	4045TF258	1500	Diesel	4	4.52	128	210	80	130	1150
100	100	110	4045HF158	1500	Diesel	4	4.52	131	210	80	130	1200
120	120	134	6068TF258	1500	Diesel	6	6.78	275	250	90	140	1250
150	150	164	6068HF158	1500	Diesel	6	6.78	275	250	90	140	1535
180	180	200	6068HF258	1500	Diesel	6	6.78	275	310	115	165	1750
200	200	220	6068HFU20C (mechanical)	1500	Diesel	6	6.8	275	310	115	165	1850
250	250	275	6068HFU55	1500	Diesel	6	9	385	310	115	165	2205
300	300	330	6090HFU84	1500	Diesel	6	9	385	310	115	165	2350
450	450	495	6135HF475	1500	Diesel	6	13.5	704	360	120	220	3500

STAUNCH TOWER LIGHTS

TOWER LIGHT SPECIFICATIONS



A-SERIES



B-SERIES

MAIN SPECIFICATIONS		ST4000YB	ST4000LP	ST4000P
ENGINE				
ENGINE BRAND		YANMAR 3TNV70/76	LISTER PETTER LPW3	PERKINS 403A-11G
Type		Water cooled diesel engine	water cooled diesel engine	water cooled diesel engine
Engine Speed	rpm	1500	1500	1500
Frequency	Hz	50	50	50
No. of Cylinders		3 in line	3 in line	3 in line
Rated Power	KVA	7.5/9	13	9
	KW	6/8	10.4	8.6
Fuel Consumption @50% Load	L/H	1.2/1.45	2.2	1.7
ELECTRICAL				
ALTERNATOR MODEL		Staunch SLG 164D / STAMFORD S0L1-H1 / TAL 40B	Staunch SLG 164D / STAMFORD S0L1-H1	Staunch SLG 164D / STAMFORD S0L1-H1
Circuit		Hard Wired	Hard Wired	Hard Wired
Voltage	VAC	110/220	110/220	110/220
DIMENSION				
Height: Mast Loaded	mm	2450	2450	2450
Height: Mast Raised	mm	8000/9000	8000	8000
Width	mm	1270	1270	1270
Wheels and Tires	inch	13	13	13
TOWER				
Rotation		340	340	340
Lighting		4X1000 watt metal halide fixture	4X1000 watt metal halide fixture	4X1000 watt metal halide fixture
Mast Operation		Manual	Manual	Manual
STABILIZER				
		1 rear 2 front	2 rear 2 front and wheel jack	2 rear 2 front and wheel jack

TOWER LIGHTS

TOWER LIGHTS

STAUNCH's Tower Lights are ideal for any construction site, rescue site, mining and many more applications. The robust and flexible design makes STAUNCH's Lighting Towers easily adopted by international rental companies, contractors and NGOS.

STANDARD FEATURES

- 2mm steel powder coated canopy
- Metal halide lamps 400w/1000w
- 4 Stabilizing jacks
- Silent enclosure
- Mechanical winch mast

OPTIONAL FEATURES

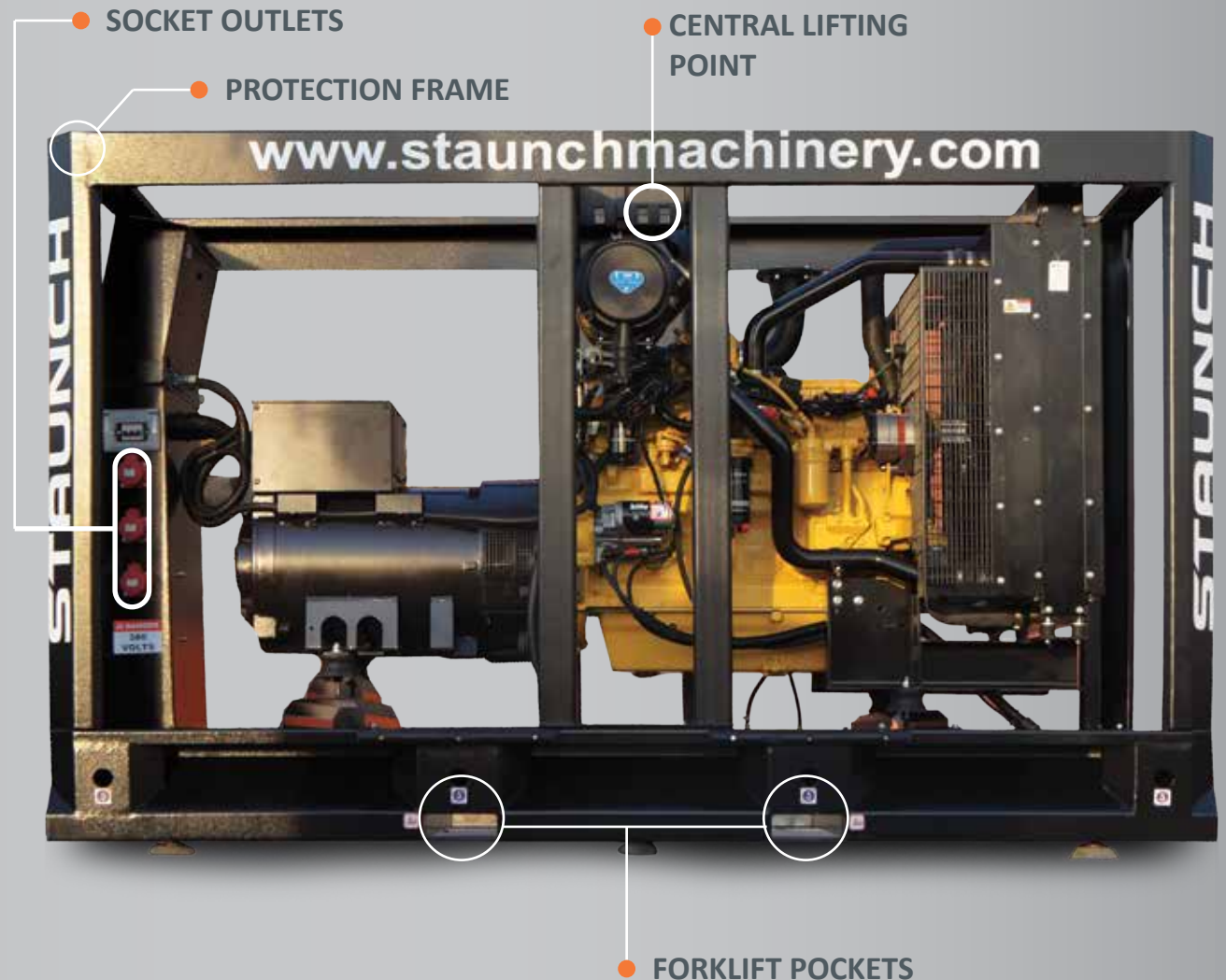
- Customized package
- LED lamps
- Additional lamps
- 9M and above mast
- Hydraulic mast
- Over size generator to power site Equipment
- Photo cell
- Digital fuel sensor
- Remote monitoring
- Water jacket heater
- Anti condensation heater



OPEN SKID STACKABLE DESIGN

DESIGNED TO ADDRESS TODAY'S DEMANDS IN SAVING SPACE AND EASY TRANSPORTATION.

THE STACKABLE DESIGN SKID MAKES IT PERFECT TO STACK OPEN TYPE GENERATORS ON TOP OF EACH OTHER. SAVE WAREHOUSING SPACE, SHIPPING COST AND PROVIDE EXTRA PROTECTION FOR YOUR GENERATOR.



SILENT CANOPY

AT STAUNCH, WE HAVE YOUR NEEDS IN MIND WHEN PROVIDING POWER SOLUTIONS, AS SUCH WE OFFER A WEALTH OF STANDARD AND OPTIONAL FEATURES SPECIFIC TO YOUR NEEDS.



Noise Sound Level
75 DB@ 1 meter

CABLE
ENTRY

SINGLE LIFTING
POINT

WATER SEAL



TIE DOWN
HOLES

OPTIONAL
SOCKET
PANEL

OIL
EXTRACTION
HOSE

FORKLIFT POCKET

SUPER SILENT CANOPY

KNOWN TO BE WHISPER QUITE, THESE CANOPIES ARE MOST FAVOURED BY POWER RENTAL COMPANIES AND URBAN SITE APPLICATIONS.



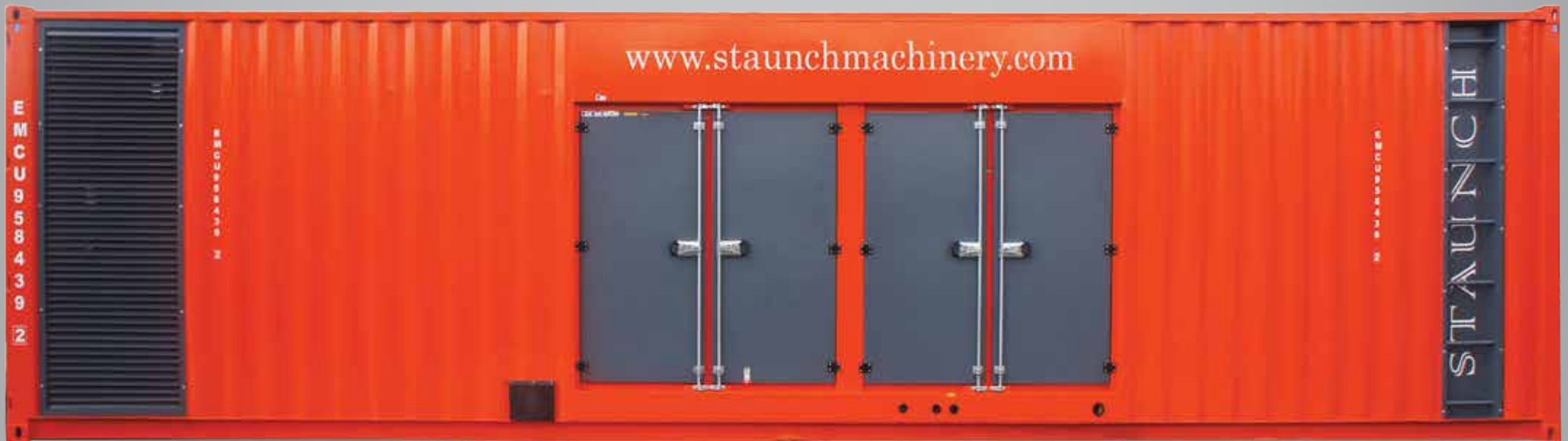
Noise Sound Level
65 DB@ 1 meter



CONTAINERIZED CANOPY

COMPLETE READY TO GO SOLUTIONS ARE ACCOMMODATED INTO THE CONTAINERIZED CANOPIES TO REDUCE UNIT FOOT-PRINT AND FACILITATE TRANSPORTATION AND SET UP. THESE SOLUTIONS AND OPTIONS CAN INCLUDE COMPLETE SET WITH COOLING PACK, SWITCH GEARS, TRANSFORMER, FUEL TREATMENT SYSTEM AND EVEN A FUEL TANK.

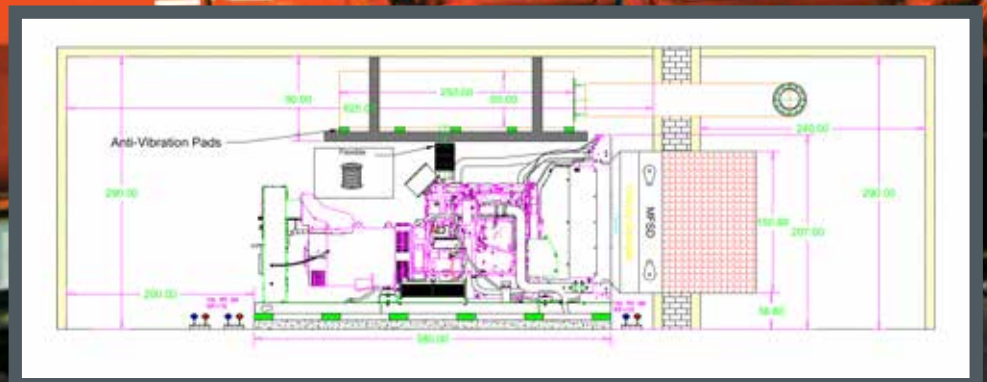
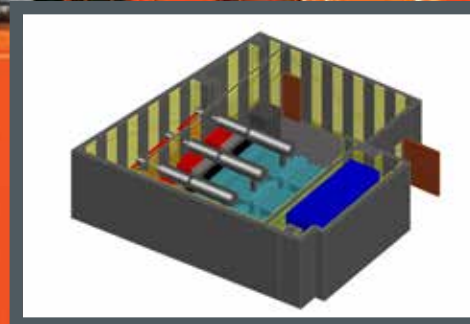
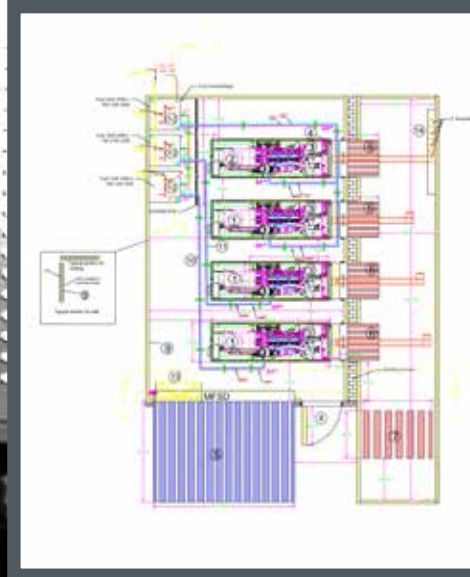
- 40" AND 20" OPTIONS.
- SILENCED OR SUPER SILENT
- CERTIFIED FOR INTERNATIONAL SHIPPING.



INSULATED ROOMS

STAUNCH has developed an innovative solution to pre-fabricate generator room to comply with some of the industry's strictest rules and regulations. The highly engineered and studied generator rooms are easy to set up and assemble at any location.

INSULATED ROOMS



STANDARD FEATURES

- Black steel + fiber insulator & black steel perforated sheet
- Residential silencers
- Attenuators for fresh & hot air
- Mezzanine for muffler
- Insulated door
- Standard fuel connections system
- Anti-vibration pads rubber type
- Standard exhaust system

OPTIONAL FEATURES

- Galvanized steel + Rockwool insulation (fire Related) + galvanized perforated sheet
- Gravity dampers
- Motorized fire smoke damper
- Ducts
- Extraction fans
- Critical silencers
- Exhaust system (stainless steel pipes, expansion joints, vibration pads...)
- Exhaust filters (carbon filter, cyclone filter, catalytic filter & soot filter)
- Ant-vibration pads (sylomer, spring isolators & seismic spring isolators)
- Fuel system protections (solenoid valves, fuel control panel, pump, float switches,...etc).

03 POWER PLANT PROJECTS

POWER PLANT PROJECT

In 2017, Staunch & Himoina signed an agreement to jointly develop the power plant projects activities in the MENA region and throughout Staunch's network in over 60 countries. In order to expand its power plant division, Staunch management decided to create a department focusing on the following main activities:

- Conventional Power Generation and Renewable Solar
- Hybrid Power Generation.

Medium Speed Generating Sets are the ideal diesel solution for prime, peak and Black Start applications. In the particular case of black start applications, the purpose of the BSDG (what does this stand for) system is to provide auxiliary power to enable the start up of the power plant main generating units (Turbines) and to restore the power station to operation without relying on auxiliary power from the grid.

Our design and engineering team is composed of highly skilled and experienced engineers who are committed to providing our clients class leading service and solutions at all times.

Our Engineering Department assigns a dedicated team to each project and follows Staunch's strict guidelines and standards every step of the way.

MEDIUM SPEED HEAVY FUEL ENGINES

Medium Speed Generating Sets are the ideal diesel solution for prime, peaking and Black Start applications. In the particular case of black start applications, the purpose of the BSDG system is to provide auxiliary power to enable the start up of the power plant main generating units (Turbines) and to restore the power station to operation without relying on auxiliary power from the grid.

Design & Engineering

Our design and engineering team is composed of skilled and experienced engineers who are committed to providing client satisfaction at all times. Our Engineering Department assigns a dedicated team to each project and follows Staunch's strict guidelines and standards every step of the way.

5MW TO 50MW BY SPPP

CONTAINERIZED OR POWERHOUSE

Staunch Power Plant Division can be your reliable partner in any business model ranging from pure EPC (Engineering Procurement Construction) to BOT (Built Own Transfer).

Staunch's Power Plant Division is proud to provide YANMAR powered plants with ranges reaching up to 4MW, all created under Himoina's strict guidelines and standards.

Staunch's Power Plant Configuration can be customized with solutions based on client needs and developed by our engineering team.

Powerhouse configuration is based on EMC (Electro Mechanical Construction) for Balance of Plant (BOP) properties

Staunch's Power Plant Project provides high speed diesel, gas generator sets; among them are Staunch and Himoina from 5kw to 2000 KW powered by reputable engine providers such as Perkins, FPT, and more.

Staunch's Modular Power Plant Configuration is mainly based on the containerized model for a quick plug and play solution.

04 APPLICATIONS AND USES

STAUNCH Power Solutions can cover all your power requirements, no matter what they may be. Staunch has a dedicated product line for a wide range of applications, be it in a rural jungle in need of telecom specific power generation, a high capacity factory in need of industrial grade power solutions, for back-up off grid solar applications or for a home in a developing country where power outages are random and frequent; Staunch's stand-by power generation units are always ready to meet the task.



RESIDENTIAL

RESIDENTIAL ULTRA SILENT CONSTANT POWER

Staunch's residential power generator sets are the perfect fit for any home. Packed in an Ultra Silent canopy with a fully comprehensive manual, on-site installation manual and warranted service, Staunch's residential solutions will light up your home all year long. It features a Certified Powder Coated Canopy design with a Power Decibel rating of 54.9 dB @ 7m rated at 50C degrees ambient temperature. No other generator can match its performance and value for money.



STANDARD FEATURES

- Ultra-silent canopy
55DB@7m - 65DB@ 1m
- 2mm steel powder coated canopy
- 3mm steel powder coated bas frame
for canopies up to 250 kva
- Forklift pockets.
- Quad lifting points

OPTIONAL FEATURES

- Fully customisable canopy design.
- Bunded fuel tank
- Gaurding & shielding according
To As4024
- Battery isolator switch
- Digital fuel sensors
- Remote monitoring
- Wall mounted ATS
- Built in ATS
- Battery trickle charger
- 3 Ph or 1 ph connection
- Anti-condensation heater
- Water jacket heater
- Extendable fuel tank up to 1000L

RENTAL

RENTAL RELIABLE SECURE POWER

Not every home or business needs a generator 100% of the time, that's why Staunch has a select line of generator sets specific to on site long and short term rental applications. With its wide range of Rental Spec units, Staunch can supply a generator to suit varying applications from high load, ultra silent, back up or prime power to be used in all types of weather and locations. Staunch Machinery has a wealth of projects and experience in on site installations. Some of our featured projects are listed below; these projects include installations in rural areas, residential set-ups, industrial manufacturing and much more.



STANDARD FEATURES

- 2mm steel powder coated canopy
- 4mm steel powder coated base frame for canopies up to 500 kva
- 6mm forklift pockets.

OPTIONAL FEATURES

- External socket outlets
- MEN Multiple Earth Neutral
- Fully customisable canopy design.
- Single, double or quad lift point design.
- Bundled fuel tank
- Drag bar.
- Gaurding & shielding according to As4024
- Removable canopy
- Battery isolator switch
- Digital Fuel sensors
- Remote Monitoring
- 3 way valve fuel
- Dual voltage switch
- Anti condensation heater
- Radiator water level switch
- Automatic transfer switch
- Trailer mount
- PMG exciter
- Removable fuel tank
- 4 pole breaker
- Water jacket heater
- Oil suction pump
- Radiator service door panel

RENTAL TYPE CANOPY HIGHLIGHTED FEATURES



Double Lifting
Point Design



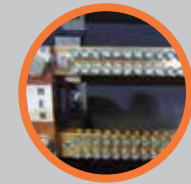
Heat Shielding



Water Tight
Rubber Gasket



Hour Meter



MEN
Multiple Earth Neutral



Fuel Outlet.
Bund Drain.



Battery Isolator
Switch



Forklift Pockets



Drag Bar

CRITICAL LOAD APPLICATIONS

Staunch Machinery provides a comprehensive solution for prime and standby power generation from 10-3000kva on bank and hospital facilities. Standby power sources are usually used when main power shuts down. Staunch's generator sets are designed to work in indoor and outdoor environments, and meet the requirements of banks and hospitals. These requirements include noise cancellation canopies, safety compliant operation, static electricity and electromagnetic interference compliance and more.

High quality generator sets with auto control function can be paralleled to reach desired power output. ATS equipment on every generator set ensures immediate switch and start when the main power source shuts down. With auto remote control function, generator set real time operation parameters and state can be monitored, and machinery will give immediate alarm to monitor equipment should faults occur.

- Working altitude suitable for up to 3000m altitude
- Working temperatures with minimum of approximately -60°C (engine heater) and maximum of 50°C
- Soundproof/Container type generator designed to be rust-proof and effectively shield rain/sand/rock from entering the canopy whilst still maintaining sufficient air intake.
- 30-40% and up to 80% noise level reduction compared to open type gen-sets.
- Auto-fuel- transfer system ensures engine runs continuously by Transferring fuel from external tank to basement tank.
- Standard base fuel tank can work up to 8 hours; large base fuel tank can extend working hours from 12 to 24 hours and an auto fuel transfer System, based on customer request.

INDUSTRIAL

INDUSTRIAL POWERFUL SOLUTIONS

Staunch's line of industrial generator sets are the excellent solution to power any industrial application needed, with a wide range of power ratings, extensive features, and durable quality, staunch set the standard when it comes to industrial grade power generation. The industrial line features the ultra silent canopies, custom built silent generator rooms, modular units with built in switch gears, to name a few..



STANDARD FEATURES

- 2mm steel powder coated canopy
- 3mm steel powder coated base frame for canopies up to 500 KVA
- 6mm Reinforced forklift pockets.

OPTIONAL FEATURES

- Peak load lopping
- Residential mufflers
- Fully customisable canopy design.
- Single, double or quad lift point design.
- Document pocket for service manuals.
- Bunded Chassis
- Gaurding & shielding according to As4024
- Battery isolator switch
- Digital fuel sensors
- Remote Monitoring
- Wall mounted ATS
- Load sharing system
- Battery trickle charger
- External fuel tank
- Totalizing panel
- Manual oil suction pump
- 4 pole breaker
- Water level
- Catalytic and carbon soot filter

MINING

MINING SOLUTIONS

Staunch provides comprehensive solutions for prime/standby power generation on mining sites. Staunch generators are designed to withstand the harshest weather conditions, whilst maintaining highly efficient and reliable uptime 24/7 on site. Staunch generator sets are able to operate continuously for 7000 hours per year. With auto remote control function, real time monitoring of operation and status, and real-time warnings should a fault occur.

Customisable to your environment:

- Working altitude suitable up to 3000 meters
- Working temperature with a minimum of approximately -60°C (engine, alternator heater) and maximum around 50°C
- Soundproof/Container type generator designed to be rust-proof and effectively shield rain/sand/rock from entering the canopy whilst still maintaining sufficient air intake.
- Large base fuel tank to extend working hours to 12 hours or 24 hours, and an auto fuel transfer system, based on customer request.



STANDARD FEATURES

- 4mm steel powder coated canopy
- 6mm steel powder coated base frame for canopies up to 500 kva
- Reinforced forklift pockets.

OPTIONAL DESIGN

- Fully customisable canopy design.
- Single, double or quad lift point design.
- Document pocket for service manuals.
- Bunded fuel tank
- Drag bar.
- Gaurding & shielding according to As4024
- Removable canopy.
- Battery isolator switch
- Oil life extension system
- Fuel saving system
- Lightning protection
- Oil suction pump
- Dust resistant canopy
- Plug connector
- Radiator water level switch
- Anti condensation heater
- Digital fuel sensors
- Remote monitoring
- Stainless steel fittings
- 4 Pole breaker
- 2 Pole lockable battery isolator
- External socket outlets
- 3 Way valve fuel
- Double insulated wiring
- PMG exciter
- Built in ATS
- Trailer mount
- MEN Multiple Earth Neutral
- Water jacket heater
- Radiator service door panel
- Automatic transfer switch

AGRICULTURAL

AGRICULTURAL FARM-READY SOLUTIONS

Staunch Machinery offers an exclusive line of agriculture ready generator sets well suited for semi-rural and rural areas. The range features specs like ultra silent canopies, fuel efficient engines, remote control, emergency power off, remote on/off switches and much more.

STANDARD FEATURES

- 2mm steel powder coated canopy
- 3mm steel powder coated base frame for canopies up to 250 KVA

OPTIONAL FEATURES

- Document pocket for service manuals.
- Bunded fuel tank
- Gaurding & shielding according to As4024
- Battery isolator switch
- Solar charger
- Digital fuel sensors
- Remote monitoring
- Anti-condensation heater
- Water heater
- PMG exciter
- Over size alternator
- Bird rodent mesh protection
- Built-in ATS



MILITARY

MILITARY CAMOUFLAGE SOLUTIONS

Our range of camouflaged Ultra-Silent power solutions are perfect for your military power needs; featuring remote on/off switches, remote monitoring, ultra fuel efficiency, super silent canopies, and more.

STANDARD FEATURES

- 2mm steel powder coated canopy
- 3mm steel powder coated base frame for canopies up to 250 KVA
- Camouflage powder coat
- Reinforced forklift pockets.

OPTIONAL FEATURES

- Fully customisable canopy design.
- Single, double or quad lift point design.
- Document pocket for service manuals.
- Bunded fuel tank
- Drag bar.
- Gaurding & shielding according to As4024
- Removable canopy.
- Battery isolator switch
- oil life extension system
- fuel saving system
- Built in ATS up to 20kva
- Remote monitoring
- Digital fuel sensors



MARINE

MARINE TYPE

Staunch Power offers a comprehensive range of marine specific generators to be used for Auxiliary power and for emergency back up application.

This range is highly customized and built to spec for each application and placement on the vessel with high anti-corrosion characteristics.



STANDARD FEATURES

- 4mm steel powder coated canopy
- 6mm steel powder coated base frame for canopies up to 500 kva
- Reinforced forklift pockets.
- Zinc coated steel

OPTIONAL DESIGN

- Fully customisable canopy design.
- Single, double or quad lift point design.
- Document pocket for service manuals.
- Bunded fuel tank
- Drag bar.
- Gaurding & shielding according to As4024
- Removable canopy.
- Battery isolator switch
- Oil life extension system
- Fuel saving system
- Lightning protection
- Oil suction pump
- Plug connector
- Radiator water level switch
- Anti condensation heater
- Digital fuel sensors
- Remote monitoring
- Stainless steel fittings
- 4 Pole breaker
- 2 Pole lockable battery isolator
- External socket outlets
- 3 Way valve fuel
- Double insulated wiring
- PMG exciter
- Built in ATS
- Trailer mount
- MEN Multiple Earth Neutral
- Water jacket heater
- Radiator service door panel
- Automatic transfer switch



TELECOM

TELECOM EMC COMPLIANT GENERATORS

Staunch has a dedicated line of Telecom compliant Power Generators specifically suited for rural areas requiring a constant source of power enabling the provision of reliable energy to telecom towers. EMC shielded canopies make Staunch's silent and Ultra Silent sets the ideal generator units to power telecom sites. Extra features such as long service kits, anti-theft canopies, remote controlling and communication units are also available as per client demand.

Staunch Machinery is a major supplier and partner for telecom service providers in the field of BTS power supply.

The GSM and renegade series include features such as remote monitoring by GSM modem, automatic transfer switches, super capacity integrated fuel tanks that reach capacities of 1200 Litres, automatic oil levelling systems, hybrid power packs for up to 90% fuel saving and all weather Ultra Silent canopies for urban or noise sensitive locations.

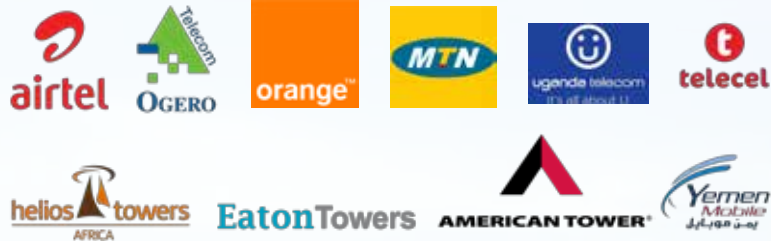
Staunch Power generators also meet strict Australian EMC (Electromagnetic Compliance) guidelines and are C-tick approved. This certification guarantees that all our power generators do not cause electromagnetic interference with sensitive telecommunication equipment.



TELECOM

TELECOM PROJECTS

STAUNCH has completed many successful projects with private telecom companies and governments around the world. Listed are a few of these companies.



STANDARD FEATURES

- 2mm steel powder coated canopy
- 3mm steel powder coated base
- Frame for canopies up to 250 kva
- Digital fuel sensors
- Remote monitoring

OPTIONAL FEATURES

- Fully customisable canopy design.
- Single, double or quad lift point design.
- Document pocket for service Manuals.
- Bunded fuel tank
- Gaurding & shielding according to As4024
- Removable canopy.
- Battery isolator switch
- Oil life extension system
- Fuel saving system
- Oil suction pump
- Anti-theft canopy
- Ultra silent canopy
- 1 Phase or 3phase connection
- Dual voltage switch
- Solar battery charger
- Water jacket heater
- Anti-condensation heater
- Extendable fuel tank
- Bird rodent mesh protection
- Built in ATS



HIGHLIGHTED SPECIAL TELECOM FEATURES



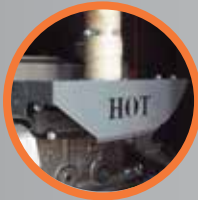
Noise Sound Level

- 55 dBa @ 7 m at Full Load
- High/ Low Frequency Attenuation



Safety Guards

- Prevent Operation Injuries
- IP21/23 Protection



Exhaust Silencer

- Protection Against Heat
- Reduce Heat Emission
- Exhaust Noise Reduction



Storage Fuel Tank

- Up to 1200 L Bulk Fuel Tank
- 3 mm Black Steel
- Fuel Level Monitoring



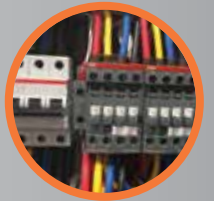
DSE 7320 AMF Control Panel

- Engine Parameters Monitoring
- Alternator Parameters Monitoring
- Integrated PLC Functions
- MODBUS - RTU Integration



Built In Automatic Transfer Switch

- Mains Power Monitoring
- Phase Sequence protection
- Phase Failure Protection



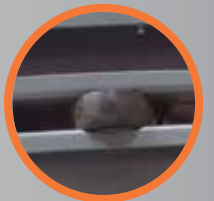
Remote Monitoring Module

- Web Monitoring via GSM/Ethernet
- Mobile Based Application
- Data Logging & Reporting



Anti-vibration Pads

- Reduce Noise Vibration
- Reduce Weight Pressure On Tank
- Prevent Vibration Transmission



Anti-Theft Canopy Style

- Internal Hinges
- Audible Alarms for Doors
- Internal Door Handles



HYBRID POWER GENERATION

Telecommunication operates in Africa, India and other developing countries face severe changes in powering mobile bas stations (BTS) sites in remote areas.

In many cases the sites are simply too far from the AC grid for AC mains powering to be economic. Other sites have AC power, but it is extremely unreliable. These sites are often powered by small diesel generator sets, running continuously.

Sealed lead acid (VRLA) batteries provide backup power to generator maintenance, start up and cover the occasional case when fuel runs out.

Ongoing costs are high and include:

Direct fuel cost, truck rolls, refueling is usually needed every one or two weeks at a high cost for every remote site.

Generator maintenance.

Generator replacement. In continuous duty a small generator may only last two years.

By changing the way the generator is controlled, an operator can achieve significant savings in running costs. This is referred to as "hybrid operation", where the generator only runs part of the time, and the battery runs the load while the generator is off.

For that purpose we offer our range of hybrid power solutions that are fully customized to fit every customer's need or request, to reach maximum efficiency.

FOR OFF-GRID APPLICATIONS POWERED BY DIESEL GENERATORS, MOVE TO CYCLIC OPERATION TO SAVE COSTS

APPLICATION	Control and power management of variable speed hybrid generators with full control of the battery charging process
VOLTAGE	Designed for systems at +48dc or -48dc
RATING	kW 12
CURRENT	220A
CONTROLLER	<p>To control the whole system</p> <p>Totally programmable 3 steps battery charging curve</p> <p>System voltage regulation obtained through speed control</p> <p>Overtakes the traditional inverter function</p> <p>Automatic engine start and stop</p> <p>Designed for hybrid generators management</p> <p>Includes fuel consumption monitoring function state of the art remote monitoring capabilities, with included modbus communication, TE-monitor software and app for android devices, GSM and internet remote control as optionals</p>

SPEED GOVERNER

Made by Woodward

ALTERNATOR

3Ph model: PMG140K

Couplings: J609b; Bell SAE 6-5-4 with disks SAE and 7,5 6,5

Special fast coupling system

Speed range: approx 1500-3000rpm

Frequency: 450Hz @ 3000rpm

Insulation Class H - temperature rise F - IP20

Includes double rotational speed detection

POWER PANEL

Designed to manage up to 4 power sources

(Battery - Generator - Mains - Aux (Solar/Wind))

Includes Hall sensors for DC current measurement

Includes overvoltage fast protection

Includes quick connectors

Rack design

EFFICIENCY RECTIFIER

3Phase full wave rectifier bridge with on-board electric fan

OPERATING TEMPERATURE

-20°C to +40°C (up to +60°C with derating 85%<)

ACCORDING TO

IEC 60034-1 - EN 61000-6-2 - EN 61000-6-4



05 GREEN TECH & HYBRID POWER

Staunch Machinery provides multiple solutions for use with Green Technologies such as Wind and Solar in Off Grid applications. These are but not limited to:

- Pure sine wave, industrial and residential dc to ac inverters off-grid as well as grid tied inverters (which do not require batteries) and UPS systems up to 800kva
- MPP solar chargers, standalone within Staunch Inverters/UPS systems
- Wind generators and charging controllers
- Solar inverters for supplying 3ph power to water pumps
- Hybrid uninterruptible power solutions systems - Depending on the customer requirements, and which can include, diesel engine, utility grid, solar panels, wind generators, Lead Acid, Nicad or Lithium batteries with design lifetime ranging from 7 to 20 years



HYBRID POWER GENERATION

Hybrid power systems optimizing efficiency:

Staunch Machinery has developed a leading true hybrid power generator set that can achieve the autonomy of up to 6 months without the need for refuelling or maintenance. Staunch hybrid systems can combine up to 5 different sources of power in order to achieve ultimate efficiency. DC Generators with variable speed engines utilize those power sources to power the advanced BTS units used in Staunch Machinery's hybrid unit.

Staunch Machinery has achieved significant breakthroughs in the field of Hybrid technology and has become one of the very few companies that have the ability to produce Hybrid Generator sets. Hybrid Generator Sets are made up of a combination of: Diesel/Gas powered generator, battery backup, solar PV panels, and wind turbine, whilst still hosting a main power source. With that combination, Staunch has achieved an efficiency of up to 95% in fuel saving per a full functional set.

06 MAINTENANCE & AFTERSALES



MAINTENANCE

Staunch has a direct warranty on all its products, with a comprehensive solution package to include extended warranties on client demand. Staunch's maintenance contracts guarantee client satisfaction and ensure minimal downtime and maximum efficiency around the clock.



INSTALLATION

Upon purchase of a Staunch Power Solution product, Staunch's team of experts will deliver and install the product to ensure that the safety and quality standards are met.



SPARE PARTS

Staunch guarantees the availability of spare parts to all of our products as part of our commitment to our customers. Staunch also provides spare parts to all our branded products around the globe. Parts that end up out of stock are manufactured or obtained within a set time-frame to ensure client satisfaction.



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