

POWER ENGINEERING

6 - 500 kVA

50 Hz - 1500 rpm



PowerSources

... WHERE THE POWER COMES FROM ...

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PowerSources

PowerSources is a group characterized by dynamic growth, with a strong presence across the world thanks to its wide product range divided into four Business Divisions:

Handling Systems Hand Pallet Trucks, Electric Pallet Trucks, High Lift Pallet Trucks, Stackers.

Power Systems Portable Gensets, Water Pumps, Electric Welders, High Pressure Washers.

Service and Parts A full line of spare parts and accessories for all PowerSources products and a dedicated worldwide after sales service organisation.

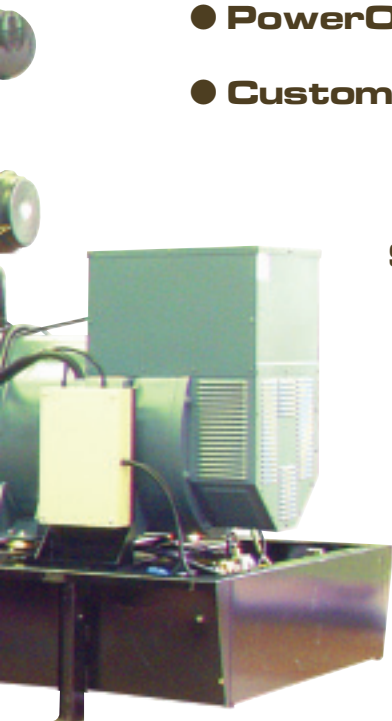
POWER ENGINEERING

Our Power Engineering division is the natural result of the experience acquired by PowerSources in the power field, and of the growth which has contributed in strengthening its consolidated knowledge. This division is, in fact, specialised in the production of a wide, versatile range of generators from 6kVA to 2500kVA, able to satisfy all applications and requirements. Commercial agreements with some of the most important companies in this industry guarantee quality, reliability and durability for all our products and solutions. All models are carefully designed to meet the different needs of our customers. PowerSources has the experience and technical know-how to develop solutions to answer every kind of request. The Power Engineering product range is divided into:

- **GenerPower** A wide range of professional gensets from 6 to 2500kVA
- **PowerOnRent** A range of 15kVA to 300kVA generators suitable for the rental market
- **Customized Solutions** Tailored solutions to meet special requirements.

SECTORS OF ACTIVITY

- **Industrial:** To ensure constant and reliable power supply.
- **Communications:** For uninterrupted services and equipment/data integrity.
- **Agriculture:** Power supply available for all kinds of application.
- **Residential application:** Peace of mind during power outages.
- **Co-Generation:** when demand for power and heat combine, requiring systems to provide both energy and heat supplies.



OPEN SET
AIR COOLED

SERIES PSA₇₋₁₀ - PBA₇₋₁₃

PSA7-10 PBA7-13: Energy for all your needs

This series of generators is the simplest way to fulfil demand for power. High quality components create generators that are very reliable and easy to use. They are also ideal for starting and powering motor pumps.



Reliability

Engine and alternator ensure a constant, high quality power supply for the most demanding applications.

Economy

Long life and very little maintenance results in very low operation costs.

Easier to use

New design gives easy access for maintenance and repair work.

Ease of handling

Easy transportation – less effort required to move the generator.

MODEL		PBA/PSA7	PBA/PSA10	PBA13
PRIME POWER	kVA/kWe	6,1/4,9	10,4/8,3	11,5/9,2
EMERGENCY POWER	kVA/kWe	6,8/5,4	11,4/9,1	12,5/10,0
ENGINE		LOMBARDINI 4LD 820/L	LOMBARDINI 9LD 625/2	DEUTZ F2L 1011 F
AUTONOMY (APPROX.)(75% LOAD)	h	6,1	3,3	26,1
DIMENSIONS (LxWxH)	mm	920x610x1112	1432x610x1112	1300x750x1030
WEIGHT	kg	220	245	370

PRIME POWER (PRP) (DIN 6270) RATING, OVERLOAD CAPACITY : POWER AVAILABLE FOR CONTINUOUS HEAVY DUTY WITH CONSTANT LOAD

EMERGENCY POWER (LTP) (DIN 6270) RATING, NO OVERLOAD CAPACITY: POWER AVAILABLE FOR CONTINUOUS LIGHT DUTY WITH VARIABLE LOAD

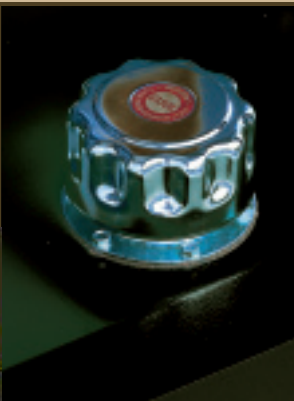
GBA13 COMPLY WITH TA LUFT-4000 REGULATION

**OPEN SET
AIR COOLED**

SERIES PSA₇₋₁₀ - PBA₇₋₁₃

Facility of handling

- Reinforced steel base frame with bolted support legs (t) to facilitate installation and fork truck transport

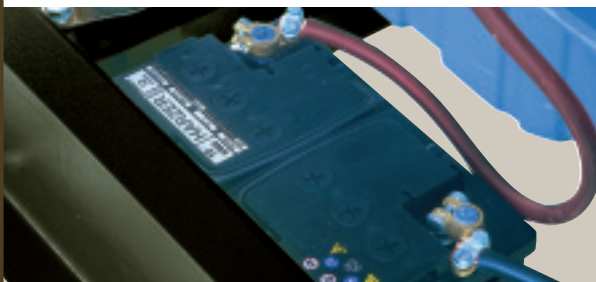


Large autonomy

- High capacity fuel tank (t) for longer running without fuel refilling (GBA13)

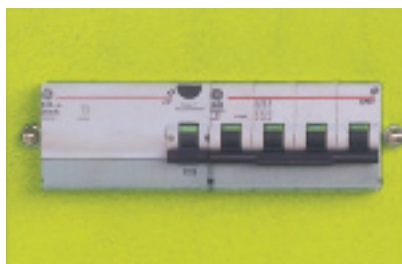
A great reliability

- The IP 23 protection ensures protection against water and dust.
- Rated capacity battery (t) for immediate engine start
- Highly efficient alternators
- Integrated-cooling system makes cylinder heads receive additional air-cooling thanks to diagonal fan.
- Anti-vibration isolators ensure a vibration free standing of the generating set



Safety and security

- A main circuit breaker (t) protects the main power supply.
- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety
- The engine protection guarantees the shutdown of the machine when an engine failure occurs (GSA7-10)



Economic

- Very economic generating sets combined with the highest quality components: the best solution for your private applications
- The oil bath air cleaner increases air filters lifetime (t)
- Engines have long maintenance intervals and low fuel consumption

Easier use

- The fuel tank (t), mounted on the engine, allows easy refilling.
- Generators are delivered ready to start and require no special foundations - they can be installed anywhere
- Accessible and easy to use control panel for manual checking.



The producer reserves the right to introduce changes to models and features without prior notice. Models, version and associated products characteristics can vary according to the markets.

CERTIFICATION

Production sites according to ISO 9001 directions



SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely tested before dispatch.

OPEN SET
AIR COOLED

SERIES PSA₂₀₋₆₀

PSA20-60: The right solution against electricity mains failures

This series of generators provides peace-of-mind; with a greatly extended running time, these sets provide a professional solution against power failures, maintaining a constant power supply.



Economic

A long lifetime and very little maintenance mean very low operation costs.

Large autonomy

Extended fuel capacity means continuous performance.

Security

Gensets are safeguarded against unauthorised use and minimise the potential of accidental damage.

Safety

Generating sets designed with safety in mind – our commitment to personal protection.

MODEL		PSA20	PSA25	PSA30	PSA40	PSA60
PRIME POWER	kVA/kWe	17,8/14,2	23,6/18,9	28,7/23,0	39,9/31,9	59,9/47,9
EMERGENCY POWER	kVA/kWe	18,9/15,1	25,2/20,2	29,2/23,4	41,0/32,8	61,0/48,8
ENGINE	DEUTZ	F3L 1011 F	F4L 1011 F	F3L 912 GEN	F4L 912 GEN	F6L 912 GEN
AUTONOMY (APPROX.)(75% LOAD)	h	27,8	22,2	19,2	14,5	8,7
DIMENSIONS (LxWxH)	mm	1650x750x998	1650x750x998	1650x750x1158	1650x750x1158	2000x750x1068
WEIGHT	kg	420	500	575	750	950

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

GSA30-40-60 COMPLY WITH TA LUFT-4000 REGULATION

Reliability

- Deutz engines extremely high load acceptance capacity ensures instant electricity supply
- They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator (t) under any generator operating condition
- Rated capacity battery for immediate engine start
- Integrated cooling system keeps cylinder heads receiving additional air cooling thanks to diagonal fan.



Facility of handling

- Reinforced steel base frame with bolted support legs (t) to facilitate installation and fork truck transport



Large autonomy

- High capacity fuel tank for longer work without fuel refilling (t)

Easier use

- Generating sets are delivered ready to start and require no special foundations, so that they can be installed anywhere
- A large number of optional available for any kind of special use you may require
- Easy access to the fuel filling cap which is mounted on the base frame
- High efficiency air filter (t) with easy removable cartridge



Security

- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- Hot parts protection against accidental contact
- The exhaust gas emissions meet the most restrictive regulations
- Moving and rotating parts protection (t) against accidental contacts
- Industrial silencer to reduce engine noise emissions

Economic

- Engines with long maintenance intervals and low fuel consumption (t)
- The brushless construction of the generator assure a long service life



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CERTIFICATION

Production sites according to ISO 9001 directions



SERVICE

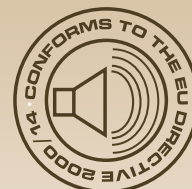
After sales service world wide.
12 months warranty.
All the gensets are completely tested before dispatch.

SOUND PROOF
AIR COOLED

SERIES PSA₄₀₋₆₀

PSA40-60: **Silent support against black-outs**

Conformity to the 2000/14/EC directive (related to environmental noise emissions) and high safety - which minimizes the risks linked to unauthorized use and accidental damage - make this series of gensets suitable for all kinds of industrial and residential applications.



Reliability

Engine and alternator ensure a constant, high quality power supply for the most demanding applications.

Economic

A long life time and very little maintenance mean very low operation costs.

Easier use

The construction improves the access for work and service.

Safety

The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs.

MODEL		PSA4	PSA60
PRIME POWER	kVA/kWe	39,9/31,9	59,9/47,9
EMERGENCY POWER	kVA/kWe	41,0/32,8	61,0/48,8
ENGINE	DEUTZ	F4L 912 GEN	F6L 912 GEN
AUTONOMY (APPROX.)(75% LOAD)	h	18,8	12,5
SOUND POWER LEVEL	LWA	99	99
SOUND PRESSURE AT 7 M	dB(A)	74	74
DIMENSIONS (LxWxH)	mm	2400x1100x1500	2600x1100x1500
WEIGHT	kg	1250	1400

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

SOUND PROOF AIR COOLED

SERIES PSA₄₀₋₆₀

Facility of handling

- A central lifting bridge (t) allows the unit to be easily lifted by a crane
- Reinforced steel base frame with bolted support legs to facilitate installation and fork truck transport



Silent

- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum.
- Highly efficient silencer (t) reduces noise emissions for sensitive locations operating.
- Anti-vibration isolators ensure vibration free operation.

Safety

- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety.
- Visible and accessible emergency shutdown switch protects against incorrect use of the generator
- In MCP and ACP versions, the power take-off is in the form of a terminal board protected by a Plexiglas panel (t), and covered by a lockable door



Reliability



- Engine cooling improved by the fan (t) mounted on the canopy
- Deutz engines extremely high load acceptance capacity ensures instant electricity supply
- They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator



Security

- Access doors are equipped with lockable handles
- Soundproofing materials are highly fireproof (t)
- The exhaust gas emissions meet the most restrictive regulations
- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs

Easier use

- A sturdy manual oil drain pump is included (t)
- Engine service points are accessible from one side through large doors
- A large number of options available for any kind of special use you may require
- They require no special foundations, so that they can be installed anywhere



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CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.

OPEN SET
OIL COOLED

SERIES PSL₂₀₋₄₀

PSL20-40: An alternative power supply

Reliable, excellent performers and easily installed, this series is perfect for use in any location not connected to a main power supply.



Reliability

Engine and alternator ensure a constant, high quality power supply for the most demanding applications.

Easier to use

New design gives easy access for maintenance and repair work.

Large autonomy

Extended fuel capacity means continuous performance.

Security

Gensets are safeguarded against unauthorised use and minimise the potential of accidental damage.

MODEL		PSL20	PSL30	PSL40
PRIME POWER	kVA/kWe	18,5/14,8	26,0/20,8	37,5/30,0
EMERGENCY POWER	kVA/kWe	19,6/15,7	27,4/21,9	39,4/31,5
ENGINE	DEUTZ	F3M 1011 F	F4M 1011 F	BF4M 1011 F
AUTONOMY (APPROX.)(75% LOAD)	h	27,8	20,4	13,9
DIMENSIONS (LxWxH)	mm	1650x750x1016	1650x750x1075	1650x750x1064
WEIGHT	kg	480	525	600

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

GSL40 COMPLY WITH TA LUFT-4000 REGULATION

**OPEN SET
OIL COOLED**

SERIES PSL₂₀₋₄₀



Economic

- Engines with long maintenance intervals and low fuel consumption (tCO₂)
- The brushless construction of the generator assures a long service life

Large autonomy

- High capacity fuel tank for longer work without fuel refilling (tCO₂)



Safety

- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety
- Visible and accessible emergency shutdown switch (tCO₂) protects against incorrect use of the generator

Reliability

- In oil cooled engines, the single fluid for both cooling and lubrication avoids corrosion and cavitation
- Deutz engines extremely high load acceptance capacity ensures instant electricity supply
- They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator under any generator operating condition
- Anti-vibration isolators (tCO₂) ensure vibration free operation.



Facility of use

- High efficiency air filter (tCO₂) with easy removable cartridge
- A large number of options available for any kind of special application
- Generating sets are delivered ready to start and they require no special foundations, so that they can be installed anywhere
- Easy access to the fuel filling cap which is mounted on the base frame

Security

- Hot parts protection against accidental contact
- Moving and rotating parts protection against accidental contacts
- The exhaust gas emissions meet the most restrictive regulations
- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- Industrial silencer (tCO₂) to reduce engine noise emissions



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CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.



SERIES

PSL₂₀₋₄₀ - PSW₁₅₋₆₀

PSL20-40 PSW15-60: Rental Energy

This range of generators is suitable for any application. They have all the features associated with PowerSources Generators; low noise, security, greatly extended running time and versatility in all applications. The perfect sets for rental.



Large autonomy

Extended fuel tank capacity means continuous performance.

Safety

Generating sets designed with safety in mind – our commitment to personal protection.

Ease of handling

Easy transportation – less effort required to move the generator.

Silent

Certification of approval in compliance with section 8 of Directive 2000/14/EC relating to environmental noise emission by equipment for outdoor use.

MODEL		PSW15	PSW20	PSL20	PSL30	PSL40	PSW60
PRIME POWER	kVA/kWe	13,5/10,8	18,0/14,4	18,5/14,8	26,0/20,8	37,5/30,0	56/45
EMERGENCY POWER	kVA/kWe	15,0/12,0	20,0/16,0	19,6/15,7	27,4/21,9	39,4/31,5	60/48
ENGINE		Yanmar 3TNE88PG	Yanmar 4TNE88PG	Deutz F3M 1011 F	Deutz F4M 1011 F	Deutz BF4M 1011 F	Deutz BF4M 1012 E
AUTONOMY (APPROX.)(75% LOAD)	h	19,9	14,9	33,3	24,5	16,7	22,0
SOUND POWER LEVEL	LWA	88	90	92	92	92	97
SOUND PRESSURE AT 7 M	dBA	63	65	67	67	67	72
DIMENSIONS (LxWxH)	mm	1800x830x1150	1800x830x1150	2250x1075x1250	2250x1075x1250	2250x1075x1250	2700x1150x1670
WEIGHT	kg	735	785	1000	1100	1160	1500

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EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

GSL40-GSW60 COMPLY WITH TA LUFT-4000 REGULATION

SERIES PSL₂₀₋₄₀ - PSW₁₅₋₆₀

Facility of handling

- A central lifting bridge allows the unit to be easily lifted by a crane
- Canopy structure redesigned for extra strength allows gensets stacking (t)

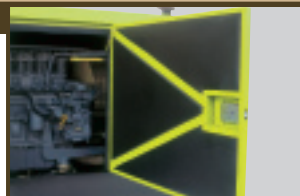


Large autonomy

- High capacity fuel tank for longer running time without fuel refilling

Safety

- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety
- Visible and accessible emergency shutdown switch protects against incorrect use of the generator
- The whole panel is protected by a lockable door (t)

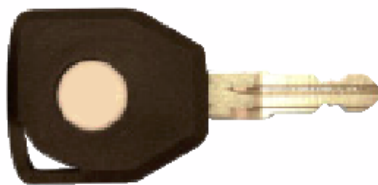


Silent

- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum (t).
- Highly efficient silencer reduces noise emissions for sensitive locations operating.
- Anti-vibration isolators ensure vibration free operation.

Reliability

- Constant supply guaranteed by the electronic voltage regulator under any operating condition.
- In GSL20-30-40, oil cooled engines, the single fluid for both cooling and lubrication avoids corrosion and cavitations (t).
- Deutz engines have extremely high load acceptance capacity and respond quickly to load fluctuations.



Security

- Lockable fuel cap, positioned to avoid damage, prevents unauthorised access
- One key system for doors, fuel cap and engine start (t).
- Access doors are equipped with lockable handles.
- The engine protection (stop solenoid) guarantees shutdown when an engine failure occurs.
- The exhaust gas emissions meet the most restrictive regulations.

Easy maintenance

- Engine maintenance is easier through large doors.
- Front panels are completely detachable. Easy access for radiator cleaning and alternator service (t).
- A sturdy manual oil drain pump is included
- External fuel filling for easier supply of fuel. (GSL 20-30-40/GSW 60)



Special Rental optional kit



- Socket kit
- The heavy duty galvanized skid allows haulage on work site
- Two slots on each side have been incorporated so that the generator can safely be transported by a fork truck
- Three way fuel valve for connection to external tank improves the autonomy of the generating set for extended shift work
- Leak proof tray for liquid containment eliminates the possibility of environmental contamination
- A battery isolation switch disconnects system's batteries in case of maintenance
- Heavy duty fuel filter with water separator and drain improves the fuel quality protecting the injection system against solid and liquid impurities

CERTIFICATION

Production sites according to ISO 9001 directions



SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely tested before dispatch.

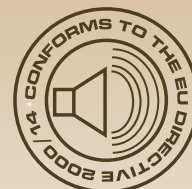
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SOUND PROOF
OIL COOLED

SERIES PBL₂₀₋₄₀

PBL20-40: A source of continuous power

This range has been designed to meet particular market needs. The most suitable application is on construction sites, where durability and reliability are required to supply constant power to applications such as lighting, cranes, concrete mixers and conveyor belts. With low noise emissions, they are also suitable for open air activities, such as shows or sporting events.



Reliability

Engine and alternator ensure a constant, high quality power supply for the most demanding applications.

Easier to use

New design gives easy access for maintenance and repair work.

Large autonomy

Extended fuel capacity means continuous performance.

Silent

High efficiency in reducing noise to the minimum.

MODEL		PBL20	PBL30	PBL40
PRIME POWER	kVA/kWe	18,5/14,8	26,0/20,8	37,5/30,0
EMERGENCY POWER	kVA/kWe	19,6/15,7	27,4/21,9	39,4/31,5
ENGINE	DEUTZ	F3M 1011 F	F4M 1011 F	BF4M 1011 F
AUTONOMY (APPROX.)(75% LOAD)	h	15,3	11,2	7,6
SOUND POWER LEVEL	LWA	96	97	96
SOUND PRESSURE AT 7 M	dB(A)	71	72	71
DIMENSIONS (LxWxH)	mm	2000x920x1147	2000x920x1147	2000x920x1147
WEIGHT	kg	819	906	925

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

GBL40 COMPLY WITH TA LUFT-4000 REGULATION

SOUND PROOF OIL COOLED

SERIES PBL 20 - 40

Facility of handling

- Reinforced steel base frame with bolted support legs to facilitate installation and fork truck transport
- A central lifting bridge (t) allows the unit to be easily lifted by a crane.



Large autonomy

- High capacity fuel tank (t) for longer work without fuel refilling.

Silent

- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum.
- Highly efficient silencer reduces noise emissions for sensitive locations operating.
- Anti-vibration isolators ensure a vibration free standing of the generating set
- Certification of approval in compliance with annex 8 of directive 2000/14/EC relating to environmental noise emission by equipment for outdoor use.

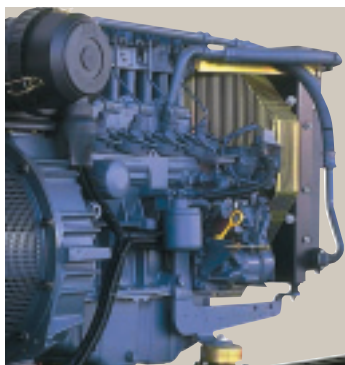


Easier use

- External fuel filling (t) for easier supply of fuel
- They require no special foundations, so that the units can be installed anywhere

Reliability

- In oil cooled engines (t), the single fluid for both cooling and lubrication avoids corrosion and cavitations
- Deutz engines extremely high load acceptance capacity ensures instant electricity supply
- They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator under any generator operating condition
- Rated capacity battery for immediate engine start.



Security

- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- The exhaust gas emissions meet the most restrictive regulations
- Access doors are equipped with lockable handles (t).

Easier maintenance

- Optical fuel level (t) for an easier fuel check
- Engine service points are accessible from one side. The maintenance is easier through large doors
- An oil drain pipe with cap is included



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CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.

OPEN SET
WATER COOLED

SERIES PSW₆₀₋₅₀₅

PSW60-505: Energy for public and industrial uses

With reliable and versatile accessories, these generators are able to meet many different needs, suitable for specific applications such as telecommunications.



Large autonomy

Extended fuel capacity means continuous performance.

Ease of handling

Easy transportation – less effort required to move the generator.

Security

Gensets are safeguarded against unauthorised use and minimise the potential of accidental damage.

Economic

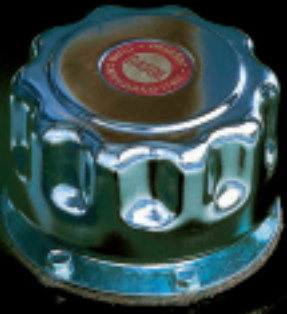
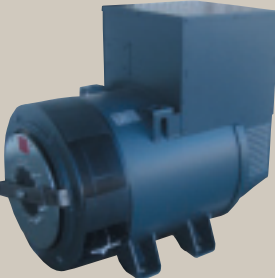
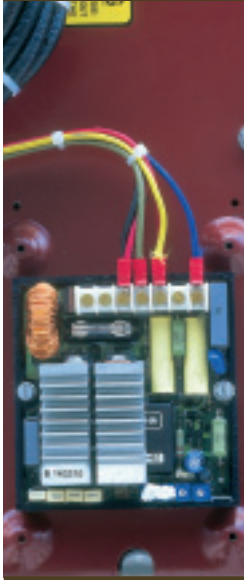
A long life time and very little maintenance mean very low operation costs.

MODEL		PSW60	PSW75	PSW105	PSW135	PSW160	PSW230	PSW315	PSW380	PSW430	PSW505
PRIME POWER	kVA/kWe	56/45	70/56	102/82	136/109	157/126	230/184	313/251	376/301	427/341	500/400
EMERGENCY POWER	kVA/kWe	60/48	73/58	108/86	143/114	165/132	254/203	347/278	407/326	471/376	525/420
ENGINE	DEUTZ	BF4M 1012 E	BF4M 1012 EC	BF4M 1013 EC	BF6M 1013 E	BF6M 1013 EC	BF6M 1015	BF6M 1015 C	BF6M 1015 CP	BF8M 1015 C	BF8M 1015 CP
AUTONOMY (APPROX.)(75% LOAD)	h	10,7	9,2	8,2	9,6	8,4	11,8	9,4	11,4	11,8	9,8
DIMENSIONS (LXWXH)	mm	2000x750x1154	2000x750x1203	2000x750x1336	2500x1000x1336	2500x1000x1458	3000x1400x2075	3000x1400x1950	3000x1600x2261	3200x1600x2205	3200x1600x2205
WEIGHT	kg	890	945	1100	1200	1590	2400	2600	2800	3400	3500

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

	Economic • The brushless construction of the generator (TÖ) assures a long service life • Engines with long maintenance intervals and low fuel consumption	
Large autonomy • High capacity fuel tank for longer work without fuel refilling (TÖ) • All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety.		Safety • Visible and accessible emergency shutdown switch (TÖ) protects against incorrect use of the generator.
Reliability  • Deutz engines extremely high load acceptance capacity ensures instant electricity supply • They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations • Highly efficient alternators • Constant supply guaranteed by the electronic voltage regulator under any generator operating condition (TÖ)	Easier to use  • Generating sets are delivered ready to start and they require no special foundations, so that they can be installed anywhere • A large number of optional available for any kind of special use you may require • Easy access to the fuel filling cap which is mounted on the base frame • High efficiency air filter (TÖ) with easy removable cartridge	Security • The exhaust gas emissions meet the most restrictive regulations. • Hot parts protection against accidental contact. • The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs. • Moving and rotating parts protection (TÖ) against accidental contacts. • Industrial silencer to reduce engine noise emissions. 

The producer reserves the right to introduce changes to models and features without prior notice. Models, version and associated products characteristics can vary according to the markets.

CERTIFICATION	SERVICE
Production sites according to ISO 9001 directions  CONFORMS TO THE EUROPEAN SAFETY RULES	After sales service world wide. 12 months warranty. All the gensets are completely tested before dispatch.

SOUND PROOF
WATER COOLED

SERIES PSW₇₅₋₅₀₅

PSW75-505: Suitable for specific applications

These generators are designed for stand-by applications, and fulfil the demand for “silent” power. Sturdy and reliable, like all PowerSources machines, the “silent” power is guaranteed by full conformity to directive 2000/14/EC, related to environmental noise emissions.



Reliability

Engine and alternator ensure a constant, high quality power supply for the most demanding applications.

Economic

A long life time and very little maintenance mean very low operation costs.

Easier to use

New design gives easy access for maintenance and repair work.

Safety

Generating sets designed with safety in mind – our commitment to personal protection.

MODEL		PSW75	PSW105	PSW135	PSW160	PSW230	PSW315	PSW380	PSW430	PSW505
PRIME POWER	kVA/kWe	70/56	102/82	136/109	157/126	230/184	313/251	376/301	427/341	500/400
EMERGENCY POWER	kVA/kWe	73/58	108/86	143/114	165/132	254/203	347/278	407/326	471/376	525/420
ENGINE	DEUTZ	BF4M 1012 EC	BF4M 1013 EC	BF6M 1013 E	BF6M 1013 EC	BF6M 1015	BF6M 1015 C	BF6M 1015 CP	BF6M 1015 C	BF6M 1015 CP
AUTONOMY (75% LOAD)	h	13,2	10,1	10,3	9,1	16,9	13,5	9,3	12,6	10,6
SOUND POWER LEVEL	LWA	98	99	99	99	99	99	99	100	100
SOUND PRESSURE AT 7 M	dB(A)	73	74	74	74	74	74	74	75	75
DIMENSIONS (LxWxH)	mm	2700x1000x1450	2970x1100x1450	3500x1100x1450	3500x1100x1450	4000x1800x2150	4000x1800x2150	4000x1800x2150	4000x2000x2150	4000x2000x2150
WEIGHT	kg	1470	1800	2120	2300	3600	3800	4000	5400	5500

PRIME POWER (PRP) (ISO 3046) RATING: PERMISSIBLE POWER OUTPUT WITH NO TIME LIMITATION, PLUS 5% EXTRA POWER FOR GOVERNING PURPOSES

EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING

ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

Facility of handling

- A central lifting bridge (t) allows the unit to be easily lifted by a crane



Economic

- The brushless construction of the generator assures a long service life
- Engines with long maintenance intervals and low fuel consumption (t)

Silent

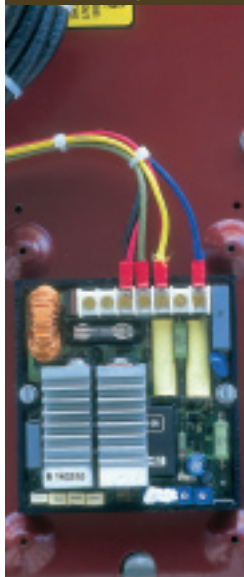
- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum.
- Highly efficient silencer reduces noise emissions for sensitive locations operating.
- Anti-vibration isolators ensure vibration free operation.
- Certification of approval in compliance with section 8 of directive 2000/14/EC relating to environmental noise emission by equipment for outdoor use.



Safety

- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety
- Visible and accessible emergency shutdown switch protects against incorrect use of the generator
- Control and power access are protected by a lockable front door (t)

Reliability



- Deutz engines extremely high load acceptance capacity ensures instant electricity supply
- They respond quickly to load fluctuations. In addition, the application will not suffer from frequency deviations
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator (t) under any generator operating condition
- Rated capacity battery for immediate engine start.



Security

- The exhaust gas emissions meet the most restrictive regulations (t)
- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- Access doors are equipped with lockable handles
- Soundproofing materials are highly fireproof.

Easier use

- A sturdy manual oil drain pump is included
- Front panels are completely detachable. Easy access (t) for radiator cleaning and alternator service
- Engine service points are accessible from one side through large doors.



The producer reserves the right to introduce changes to models and features without prior notice. Models, version and associated products characteristics can vary according to the markets.

CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.

OPEN SET
WATER COOLED

SERIES PSW₁₈₅₋₅₀₀

PSW185-500: Power in isolation

A continuous supply of power, provided by high power output and extended running time, makes this range of generators the most suitable for powering sites not connected to a mains power supply. This range is also ideal for running lighting systems during a power failure.



Powerful

The generating set produces a constant power with independence of load characteristics.

Easy maintenance

New design gives easy access for maintenance and repair work.

Large autonomy

Extended fuel capacity means continuous performance.

Security

Gensets are safeguarded against unauthorised use and minimise the potential of accidental damage.

MODEL		PSW185	PSW200	PSW250	PSW300	PSW325	PSW375	PSW400	PSW450	PSW500
PRIME POWER	kVA/kWe	181/145	200/160	250/200	300/240	327/262	371/297	400/320	450/360	500/400
EMERGENCY POWER	kVA/kWe	205/164	210/168	263/210	315/252	350/280	407/326	420/336	473/378	525/420
ENGINE	VOLVO	TWD 710 G	TWD 740 GE	TAD 740 GE	TAD 1032 GE	TAD 1240 GE	TAD 1241 GE	TAD 1242 GE	TAD 1630 GE	TAD 1631 GE
AUTONOMY (APPROX.)(75% LOAD)	h	14,9	13,5	11,5	9,2	8,8	7,8	9,8	10,5	9,4
DIMENSIONS (LxWxH)	mm	2500x1100x1845	2500x1100x1820	3000x1100x1829	3000x1100x1834	3000x1100x1883	3000x1100x1958	3000x1100x1958	3500x1300x2080	3500x1300x2085
WEIGHT	kg	1935	1935	2180	2650	2700	2920	3100	3700	3800

PRIME POWER (PRP) (ISO 8528) RATING: PERMISSIBLE POWER OUTPUT AT VARIABLE LOAD FOR AN UNLIMITED NUMBER OF HOURS. A 10% OVERLOAD CAPABILITY IS AVAILABLE

EMERGENCY POWER (LTP) (ISO 8528) RATING: STANDBY POWER AT VARIABLE LOAD. NO OVERLOAD CAPABILITY IS AVAILABLE

ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

**OPEN SET
WATER COOLED**

SERIES PSW₁₈₅₋₅₀₀



Reliable and powerful

- Thanks to the electronic governor (optional for GSW185) Volvo Penta engines have an improved capacity to recover frequency after an abrupt load application
- Tropicalised alternator continuously maintaining very good insulation level. The impregnation with epoxi resins protects the alternator windings particular environmental conditions
- Highly efficient alternators
- Constant supply guaranteed by the electronic voltage regulator under any generator operating condition
- The in-line six cylinders engine design (TCE) gives life to a wellbalanced system producing smooth and vibration-free performance, with a low noise level

Economic

- Excellent combustion and low fuel consumption due to low internal losses
- The brushless construction of the generator (TCE) assures a long service life



Safety

- All metal parts are connected to an external grounding point. Fault currents are connected to the ground for your safety
- Visible and accessible emergency shutdown switch (TCE) protects against incorrect use of the generator



Security

- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- Hot parts protection against accidental contact
- The exhaust gas emissions meet the most restrictive regulations
- Moving and rotating parts protection against accidental contacts
- Industrial silencer (TCE) to reduce engine noise emissions.



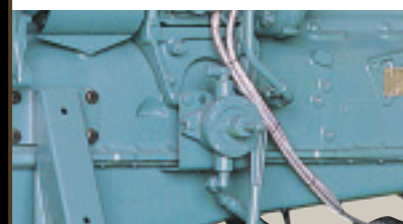
Large autonomy

- High capacity fuel tank for longer work without fuel refilling (TCE).



Easier use and maintenance

- A sturdy manual oil drain pump (TCE) is included.
- Easily accessible service and maintenance points contribute to machine's ease of service
- Generating sets are delivered ready to start and they require no special foundations, so that they can be installed anywhere
- Easy access to the fuel filling cap which is mounted on the base frame.



CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.

The producer reserves the right to introduce changes to models and features without prior notice. Models, version and associated products characteristics can vary according to the markets.

SOUND PROOF
WATER COOLED

SERIES PSW₁₈₅₋₅₀₀

PSW185-500: Silent Power for public and industrial uses

Low noise emissions (conforming to directive 2000/14/EC, related to environmental noise emissions), conformity to gas emission laws and high security (lockable panels, fireproof canopy) make these sets ideal for any public (hospitals, supermarkets, restaurants) or industrial application.



Large autonomy

Extended fuel capacity means continuous performance.

Ease of handling

Easy transportation – less effort required to move the generator.

Security

Generators are safeguarded against unauthorised use and minimise the potential of accidental damage.

Silent

High efficiency in reducing noise to the minimum.

MODEL		PSW185	PSW200	PSW250	PSW300	PSW325	PSW375	PSW400	PSW450	PSW500
PRIME POWER	kVA/kWe	181/145	200/160	250/200	300/240	327/262	371/297	400/320	450/360	500/400
EMERGENCY POWER	kVA/kWe	205/164	210/168	263/210	315/252	350/280	407/326	420/336	473/378	525/420
ENGINE	VOLVO	TWD 710 G	TWD 740 GE	TAD 740 GE	TAD 1032 GE	TAD 1240 GE	TAD 1241 GE	TAD 1242 GE	TAD 1630 GE	TAD 1631 GE
AUTONOMY (75% LOAD)	h	11,9	10,7	9,1	12,6	12,1	10,7	9,8	12,4	11,1
SOUND POWER LEVEL	LWA	95	99	99	99	99	100	100	100	100
SOUND PRESSURE AT 7 M	dB(A)	70	74	74	74	74	74	75	75	75
DIMENSIONS (LxWxH)	mm	3500x1300x1950	3500x1300x1950	3500x1300x1950	4000x1600x2100	4000x1600x2100	4000x1600x2100	4000x1600x2100	5000x1800x2100	5000x1800x2100
WEIGHT	kg	2950	3365	3490	3950	4000	4300	4500	5250	5600

PRIME POWER (PRP) (ISO 8528) RATING: PERMISSIBLE POWER OUTPUT AT VARIABLE LOAD FOR AN UNLIMITED NUMBER OF HOURS. A 10% OVERLOAD CAPABILITY IS AVAILABLE

EMERGENCY POWER (LTP) (ISO 8528) RATING: STANDBY POWER AT VARIABLE LOAD. NO OVERLOAD CAPABILITY IS AVAILABLE

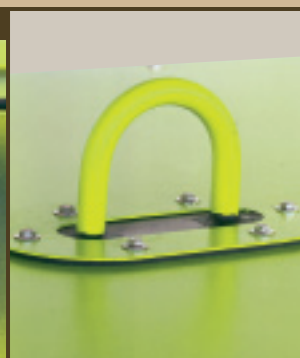
ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

SOUND PROOF WATER COOLED

SERIES PSW₁₈₅₋₅₀₀

Silent

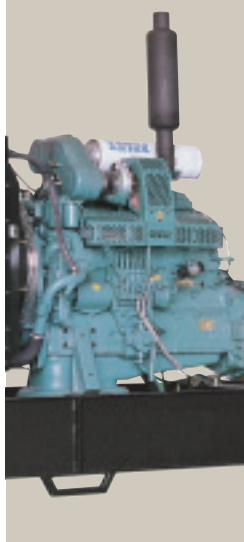
- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum.
- Highly efficient silencer (t) reduces noise emissions for sensitive locations operating.
- Anti-vibration isolators ensure a vibration free standing of the generating set
- Certification of approval in compliance with annex 8 of directive 2000/14/EC relating to environmental noise emission by equipment for outdoor use.



Facility of handling

- A central lifting bridge (t) allows the unit to be easily lifted by a crane.

Reliable and powerful



- Thanks to the electronic governor (optional for GSW185) Volvo Penta engines (t) have an improved capacity to be able to recover frequency after an abrupt load application
- Tropicalised alternator continuously maintaining very good insulation level. The impregnation with epoxi resins protects the alternator windings particular environmental conditions



Security

- The engine protection (stop solenoid) guarantees the shutdown of the machine when an engine failure occurs
- The exhaust gas emissions meet the most restrictive regulations
- Access doors are equipped with lockable handles (t)
- Soundproofing materials are highly fireproof

Easier use and maintenance

- Easily accesible service (t) and maintenance points through large doors contribute to the ease of service of the machine
- A sturdy oil drain pump is included



The producer reserves the right to introduce changes to models and features without prior notice. Models, version and associated products characteristics can vary according to the markets.

CERTIFICATION

Production sites according to ISO 9001 directions



CONFORMS
TO THE EUROPEAN
SAFETY RULES

SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completely
tested before dispatch.

CONTROL

PANELS



CONTROL PANELS

DEFINITIONS

Prewired Genset

The Generating Set is supplied without a control panel. All the controls and alarms coming from the engine and the alternator are wired to a terminal board, for an easy external control panel connection. This is the ideal solution for markets and applications that require special controls (such as synchronising panels).

MCP (Manual Control Panel)

The generating set is supplied with a manual control panel, mounted on the genset. The panel on the base frame (open set version) or in the canopy (soundproof version), includes a manual control unit (push button / key start type), main circuit breaker, differential protection and all auxiliary controls and alarms. Power cables between generator and circuit breaker are included.

ACP (Automatic Control Panel)

The generating set is supplied with an automatic control panel, mounted on the genset. The panel on the base frame (open set version) or in the canopy (soundproof version), includes an automatic control unit that starts the genset in case of mains failure (it can be started manually too), main circuit breaker, differential protection and all auxiliary controls and alarms. Power cables between generator and circuit breaker are included. All controls are wired to a plinth row installed in the control panel for an easy external Load Transfer Switch (LTS).

AMF (Automatic Mains Failure Start Control Panel)

This panel is built in a metal cabinet and supplied separate of the genset (free standing, for wall mounting). It is an option of the genset prewired. It includes an automatic control unit that starts the genset in case of mains failure (it can be started manually too), two change over contactors electrically and mechanically interlocked (for transferring the load between mains and generating set) and all auxiliary controls and alarms. All these controls and alarms are wired to a plinth row installed in the control panel for an easy connection to the genset pre-wired.

LTS panel

The LTS panel is built in a metal cabinet and supplied separate of the genset (free standing, for wall mounting). It is an option of the ACP panel. The panel includes two change over contactors electrically and mechanically interlocked (for transferring the load between mains and generating set) and all auxiliary controls. All these controls are wired to a plinth row installed in the panel for an easy connection to the ACP panel (that is mounted on the genset).

MANUAL CONTROL PANELS

PBA7-13
OPEN SET



PSA7-10
OPEN SET



PSA20-60 / PSL20-40
PSW60-505 / PSW185-500 OPEN SET



PSA40-60 / PSW75-505 / PSW185-500
SOUNDPROOF



PBL20-40
SOUNDPROOF



PSL20-40 / PSW15-60
SOUNDPROOF



Sockets availability and characteristics can be modified according to the different markets.

MANUAL CONTROL PANELS

MANUAL CONTROL PANELS EQUIPMENT, THREE PHASE, 400/230V, 50HZ

SERIES	PBA7-13	PSA7-10	PSA20-60 (OPEN)	PSA40-60 (SP)	PSL20-40 (OPEN)	PSL20-40 GSW15-60 (SP)	PBL20-40 (SP)	PSW60-505 (OPEN)	PSW75-505 (SP)	PSW185-500 (OPEN)	PSW185-500 (SP)
Analogue/Digital instrumentation	A	A	D	D	D	A	A	D	D	D	D
Generating set voltage (1 or 3 phases)	1	1	3	3	3	3	1	3	3	3	3
Generating set ammeter (1 or 3 phases)	-	1	3	3	3	3	1	3	3	3	3
Frequency meter	-	S	S	S	S	S	-	S	S	S	S
Hours meter	S	S	S	S	S	S	S	S	S	S	S
Battery voltage	-	-	S	S	S	-	-	S	S	S	S
Power (kVA, kW, kVAr, cos phi)	-	-	S	S	S	-	-	S	S	S	S
Fuel level	-	-	S	S	S	S	-	S	S	S	S
Oil pressure	-	-	X	X	X	S	-	X*	X*	S	S
Engine temperature	-	-	X	X	S	S	-	S	S	S	S
Alarms											
Over-frequency	-	-	S	S	S	S	S	S	S	S	S
Battery charger failure	S	S	-	-	-	S	S	-	-	-	-
Battery voltage out of limits	-	-	S	S	S	-	-	S	S	S	S
Low fuel level	-	-	S	S	S	S	-	S	S	S	S
Low oil pressure	S	S	S	S	S	S	S	S	S	S	S
High engine temperature	-	-	S	S	S	S	S	S	S	S	S
External shutdown	-	S	S	S	S	-	-	S	S	S	S
Shutdown protections											
Generator voltage out of limits	-	-	S	S	S	-	-	S	S	S	S
Over-load	-	-	S	S	S	-	-	S	S	S	S
Frequency out of limits	-	-	S	S	S	-	-	S	S	S	S
Battery charger failure	-	S	-	-	-	S	S	-	-	-	-
Low fuel level	-	-	S	S	S	S	-	S	S	S	S
Low oil pressure	-	S	S	S	S	S	S	S	S	S	S
High temperature	-	-	S	S	S	S	S	S	S	S	S
Circuit breaker	S	S	S	S	S	S	S	S	S	S	S
Differential protection	-	S	S	S	S	S	S	S	S	S	S
Sockets											
Shuko socket	-	1	1	1	1	1	1	1	1	1	1
Single phase CE socket	1	1	-	X	-	X	2	-	X	-	X
Three phase CE socket	1	1	-	X	-	X	2	-	X	-	X
Other features											
Emergency stop button	-	S	S	S	S	S	S	S	S	S	S
External start capability	-	-	X	X	X	X	-	X	X	X	X

S : Standard

X : Optional

(-) : Not available

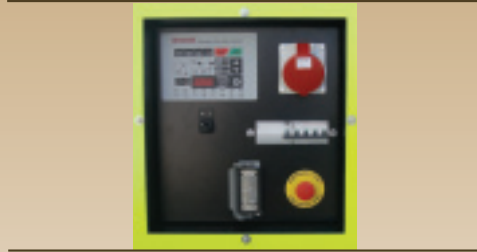
* : Standard for Deutz 1015

AUTOMATIC CONTROL PANELS

PSA7-10
OPEN SET



PBL20-40
SOUNDPROOF



PSA20-60 / PSL20-40
PSW60-505 / PSW185-500 OPEN SET



PSA40-60 / PSW75-505 / PSW185-500
PSL20-40 / PSW15-60 SOUNDPROOF



LOAD TRANSFER SWITCH PANELS



AUTOMATIC MAINS FAILURE PANELS

PSA7-10 OPEN SET
GBL20-40 SOUNDPROOF



PSA20-60 / PSL20-40 / PSW60-505
PSW185-500 OPEN SET
PSA40-60 / PSL20-40 / PSW15-60
PSW75-505 / PSW185-500 SOUNDPROOF



Sockets availability and characteristics can be modified according to the different markets.

ACP - AMF PANELS

AUTOMATIC CONTROL PANELS EQUIPMENT, THREE PHASE, 400/230V, 50HZ

SERIES	PSA7-10		PSA20-60 (OPEN)		PSA40-60 (SP)		PSL20-40 (OPEN)		PSL20-40 - GSW15-60 (SP)		PBL20-40 (SP)		PSW60-505 (OPEN)		PSW75-505 (SP)		PSW185-500 (OPEN)		PSW185-500 (SP)	
	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF	ACP	AMF
Analogue/Digital instrumentation	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Generating set voltage (1 or 3 phases)	1	1	3	3	3	3	3	3	3	3	1	1	3	3	3	3	3	3	3	3
Mains voltage	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Generating set ammeter (1 or 3 phases)	1	1	3	3	3	3	3	3	3	3	1	1	3	3	3	3	3	3	3	3
Generator frequency	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hourmeter	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Battery voltage	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Speed	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Power (kVA, kW, kVAr, cos phi)	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Fuel level	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Oil pressure	-	-	X	X	X	X	X	X	X	X	-	-	X*	X*	X*	X*	S	S	S	S
Engine temperature	-	-	X	X	X	X	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Alarms																				
Generator voltage out of limits	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Over-load	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Battery charger failure	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Battery voltage out of limits	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Frequency out of limits	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Low fuel level	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Low oil pressure	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
High temperature	-	-	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Fail to start	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
External shutdown	-	-	S	S	S	S	S	S	S	S	-	-	S	S	S	S	S	S	S	S
Shutdown protections																				
Generator voltage out of limits	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Over-load	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Frequency out of limits	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Battery charger failure	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Low fuel level	-	-	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Low oil pressure	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
High temperature	-	-	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Circuit breaker	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-
Differential protection	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-
Sockets																				
Shuko socket	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
Single phase CE socket	-	-	-	-	X	-	-	-	X	-	1	-	-	-	X	-	-	-	X	-
Three phase CE socket	-	-	-	-	X	-	-	-	X	-	-	-	-	-	X	-	-	-	X	-
Other features																				
Emergency stop button	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Acoustic alarm	-	-	S	S	S	S	S	S	S	S	-	S	S	S	S	S	S	S	S	S
Phases detector	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Battery charger	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Terminals for an external panel connexion	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Load Transfer Switch (LTS) panel	X	-	X	-	X	-	X	-	X	-	X	-	X	-	X	-	X	-	X	-
External start capability	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

S : Standard

X : Optional

(-) : Not available

* : Standard for Deutz 1015

Sockets availability and characteristics can be modified according to the different markets.

		LOMBARDINI		DEUTZ								
		AIR COOLED		AIR COOLED						OIL COOLED		
		PBA/GSA7	PBA/GSA10	PBA13	PSA20	PSA25	PSA30	PSA40	PSA60	PBL/PSL20	PBL/PSL30	PBL/PSL40
GEN SET												
Prime power [PRP]	kVA/kWe	6.1/4.9	10.4/8.3	11.5/9.2	17.8/14.2	23.6/18.9	28.7/23.0	39.9/31.9	59.9/47.9	18.5/14.8	26.0/20.8	37.5/30.0
Emergency power [LTP]	kVA/kWe	6.8/5.4	11.4/9.1	12.5/10.0	18.9/15.1	25.2/20.2	29.2/23.4	41.0/32.8	61.0/48.8	19.6/15.7	27.4/21.9	39.4/31.5
Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50
Three Phases Voltage	V	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230
Power factor	Cos phi	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8	0,8
ENGINE												
Brand		LOMBARDINI		DEUTZ								
Model		4LD 820/L	9LD 625/2	F2L 1011 F	F3L 1011 F	F4L 1011 F	F3L 912 GEN	F4L 912 GEN	F6L 912 GEN	F3M 1011 F	F4M 1011 F	BF4M 1011F
Prime power	kWm	6	9,8	11	17	22,5	27	36,5	54	17,6	24,5	34,3
Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Intake		NATURAL										TURBO
Cooling		AIR								OIL		
Injection		DIRECT										
Cylinders		1	2 LINE	2 LINE	3 LINE	4 LINE	3 LINE	4 LINE	6 LINE	3 LINE	4 LINE	4 LINE
Displacement	cm³	817	1248	1366	2049	2732	2827	3770	5655	2185	2914	2912
Bore/Stroke	mm	102/100	95/88	91/105	91/105	91/105	100/120	100/120	100/120	91/112	91/112	91/112
Compression ratio		17.0:1	17.5:1	18.5:1	18.5:1	18.5:1	20:1	20:1	20:1	19:1	19:1	17.5:1
Standard governor		MECHANICAL										
Governing control quality (mech) (1)		G2	G2	G2	G2	G2	G2	G2	G2	G2	G2	G2
Exhaust gases temperature (2)	°C	-	-	410	440	445	460	455	460	490	480	545
Exhaust gases flow	m3/h	-	-	157	236	313	264	353	527	250	334	501
Max. exhaust back pressure	mbar	-	-	30	30	30	30	30	30	30	30	30
Cooling air flow	m³/h	624 (4)	1578 (5)	510	788	1057	3500	2900	5600	1730	1730	2160
Max. allowed intake dep.	mbar	-	-	20	20	20	20	20	20	20	20	20
Combustion air flow	m³/h	53.4 (4)	112.2 (5)	55	83	111	108	144	216	88	118	177
LUBRICATION SYSTEM												
Oil consumption (% of fuel cons.)	%	MAX. 0.3 %					MAX. 0.5 %			MAX. 0.3 %		MAX. 0.5 %
Lubricating oil capacity (3)	l	2,6	2,8	6	5,5	10	7	8	10	5,5	10	10
Minimum oil pressure	bar	1	1,5	2,1	2,1	2,1	1	1	1	2,1	2,1	2,1
FUEL CONSUMPTION												
75% load	l/h	-	-	2,3	3,6	4,5	5,2	6,9	10,4	3,6	4,9	7,2
100% load	l/h	1,9	3,0	3,0	4,6	5,9	8,2	8,9	13,5	4,7	6,4	9
ELECTRIC SYSTEM												
Voltage	V	12	12	12	12	12	12	12	12	12	12	12
Type		NEG. TO GND.										
Battery (ACP)	Ah	55	55	70	70	70	95	95	95	70	70	70
Starting motor	KW	-	-	2,3	2,3	2,3	3,1	3,1	3,1	3,1	3,1	3,1
ALTERNATOR												
Brand		MECC ALTE										
Model		ECO 3 1S	ECO 3 1L	ECO 3 2L	ECO 28 1L	ECO 28 2L	ECO 28 VL	ECO 32 3S	ECO 32 2L	ECO 28 1L	ECO 28 VL	ECO 32 3S
Nº of poles		4	4	4	4	4	4	4	4	4	4	4
Efficiency at 3/4	%	82	86	86.5	84,7	84,8	85.0	87.8	89.0	84,7	85.0	87,8
Power at 40º C	kVA/kWe	6.5/5.2	11/8.8	14/11	20/16	25/20	30/24	40/32	60/48	20/16	30/24	40/32
Nº of wires		6	6	6	12	12	12	12	12	12	12	12
Insulation		CLASS H										
Protection		IP 23	IP 23	IP 23	IP 23	IP 23	IP 23	IP 21	IP 21	IP 23	IP 23	IP 21
Regulation		ELECTRONIC (±1.5% WITH ANY POWER FACTOR AND SPEED VARIATIONS BETWEEN -5% AND +30%)										

(1) according to ISO8528

(2) full load and 25°C

(3) sump, including filters

(4) at 2600 rpm

(5) at 3000 rpm

For other voltages, please request to factory

		YANMAR		DEUTZ									
		WATER COOLED		WATER COOLED									
		PSW15	PSW20	PSW60	PSW75	PSW105	PSW135	PSW160	PSW230	PSW315	PSW380	PSW430	PSW505
GEN SET													
Prime power [PRP]	kVA/kWe	13.5/10.8	18.0/14.4	56/45	70/56	102/82	136/109	157/126	230/184	313/251	376/301	427/341	500/400
Emergency power [LTP]	kVA/kWe	15.0/12.0	20.0/16.0	60/48	73/58	108/86	143/114	165/132	254/203	347/278	407/326	471/376	525/420
Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50	50
Three Phases Voltage	V	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230
Power Factor	Cos phi	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
ENGINE													
Brand		YANMAR		DEUTZ									
Model		3TNE 88ACG	4TNE 88ACG	BF4M 1012 E	BF4M 1012 EC	BF4M 1013 EC	BF6M 1013 E	BF6M 1013 EC	BF6M 1015	BF6M1015C	BF6M1015 CP	BF8M1015 C	BF8M1015 CP
Prime power	kWm	12,3	16,4	50,9	62,8	90,6	117,8	137,8	199,3	271,2	327,3	369,3	437,3
Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Intake		NATURAL		TURBO	TURBO-INTERCOOLER		TURBO	T-INTERCOOLER	TURBO	TURBO-INTERCOOLER			
Cooling		WATER											
Injection		DIRECT											
Cylinders		3 LINE	4 LINE	4 LINE	4 LINE	4 LINE	6 LINE	6 LINE	V-6	V-6	V-6	V-8	V-8
Displacement	cm³	1642	2190	3192	3192	4764	7146	7146	11906	11906	11906	15874	15874
Bore/Stroke	mm	88/90	88/91	94/115	94/115	108/130	108/130	108/130	132/145	132/145	132/145	132/145	132/145
Compression ratio		18.0:1	18.0:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17:1	17:1	17:1	17:1	17:1
Standard governor		MECHANICAL							EMR	EMR	EMR	EMR	EMR
Governing control quality (1)		G2	G2	G2	G2	G2	G2	G2	G3	G3	G3	G3	G3
Exhaust gases temperature (2)	°C	450	460	530	515	560	537	463	530	450	505	455	505
Exhaust gases flow	m³/h	-	-	481	575	946	1242	1655	2795	3465	3750	4642	5079
Max. exhaust back pressure	mbar	-	-	30	30	30	30	30	50	50	50	50	50
Cooling air flow	m³/h	-	-	7560	6840	7920	10080	14400	19800	20952	24120	24120	32940
Max. allowed intake dep.	mbar	196	196	20	20	20	20	20	50	50	50	50	50
Combustion air flow	m³/h	2	2.7	177	213	351	460	614	970	1360	1462	1822	1958
LUBRICATION SYSTEM													
Oil consumption (% of fuel cons.)	%	-	-	MAX. 0.3 %									
Lubricating oil capacity (3)	l	7,2	8,6	9,5	9,5	13	20	20	34	34	34	45	45
Minimum oil pressure	bar	2,9	2,9	3	3	2	2	2	3	3	3	3	3
FUEL CONSUMPTION													
75% load	l/h	2,61	3,49	9,8	11,4	16,3	21,3	24,3	40,2	50,4	59,9	67,2	80,5
100% load	l/h	3,48	4,64	13,1	15,2	21,6	28,6	32,3	54,6	68,6	80,6	91,9	111,1
ELECTRIC SYSTEM													
Voltage	V	12	12	12	12	12	12	12	24	24	24	24	24
Type		NEG. TO GND.											
Battery (ACP)	Ah	45	45	95	95	145	145	145	2X145	2X145	2X145	2X145	2X145
Starting motor	kW	0,4	0,4	3.1	3.1	3.1	3.1	3.1	5.4	5.4	5.4	5,4	5.4
ALTERNATOR													
Brand		MECC ALTE											
Model		ECO 28 1S	ECO 28 1L	ECO 32 2L	ECO 32 3L	ECO 34 2S	ECO 34 2L	ECO 37 1S	ECO 37 1L	ECO 37 3L	ECO 40 1S	ECO 40 2S	ECO 40 3S
Nº of poles		4	4	4	4	4	4	4	4	4	4	4	4
Efficiency at 3/4	%	84	84,7	89	89,1	90,4	92,3	91,5	92,8	92,8	92,5	92,6	92,7
Power at 40° C	kVA/kWe	16/13	20/16	60/48	70/56	105/84	150/120	170/136	250/200	340/272	400/320	450/360	500/400
Nº of wires		12	12	12	12	12	12	12	12	12	12	12	12
Insulation		CLASS H											
Protection		IP23	IP23	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21
Regulation		ELECTRONIC (±1.5% WITH ANY POWER FACTOR AND SPEED VARIATIONS BETWEEN -5% AND +30%)											

(1) according to ISO8528

(2) full load and 25°C

(3) sump, including filters

For other voltages, please request to factory

		VOLVO PENTA								
		WATER COOLED								
		PSW185	PSW200	PSW250	PSW300	PSW325	PSW375	PSW400	PSW450	PSW500
GEN SET										
Prime power [PRP]	kVA/kWe	181/145	200/160	250/200	300/240	327/262	371/297	400/320	450/360	500/400
Emergency power [LTP]	kVA/kWe	205/164	210/168	263/210	315/252	350/280	407/326	420/336	473/378	525/420
Frequency	Hz	50	50	50	50	50	50	50	50	50
Three Phases Voltage	V	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230
Power Factor	Cos phi	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
ENGINE										
Brand		VOLVO	VOLVO	VOLVO	VOLVO	VOLVO	VOLVO	VOLVO	VOLVO	VOLVO
Model		TWD 710 G	TWD 740 GE	TAD 740 GE	TAD1032GE	TAD1240GE	TAD1241GE	TAD 1242 GE	TAD 1630 GE	TAD 1631 GE
Prime power	kWm	158	178	217	262	283	323	352	395	435
Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500
Intake		TURBO-W/A	TURBO-W/A	TURBO-A/A	TURBO-A/A	TURBO-A/A	TURBO-A/A	TURBO-A/A	TURBO-A/A	TURBO-A/A
Cooling		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Injection		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
Cylinders		6 LINE	6 LINE	6 LINE	6 LINE	6 LINE	6 LINE	6 LINE	6 LINE	6 LINE
Displacement	cm3	6730	7280	7280	9,6	12130	12130	12130	16120	16120
Bore/Stroke	mm	105/130	107/135	107/135	120/140	131/150	131/150	131/150	144/165	144/165
Compression ratio		14.5:1	17.2:1	17.2:1	17:1	18.5:1	17.5:1	17.5:1	15:1	15:1
Standard governor		MECH	GAC	GAC	GAC	EDC III	EDC III	EDC III	GAC	GAC
Governing control quality (1)		G2	G3	G3	G3	G3	G3	G3	G3	G3
Exhaust gases temperature (2)	°C	565	525	525	510	480	490	490	490	550
Exhaust gases flow	m³/h	1692	1860	2352	2760	3174	3480	3480	4902	5418
Max. exhaust back pressure	mbar	50	100	100	50	100	100	100	50	50
Cooling air flow	m³/h	9720	10980	10980	16020	14760	16740	29520	25560	26100
Max. allowed intake dep.	mbar	50	50	50	50	50	50	50	50	50
Combustion air flow	m³/h	600	696	882	1074	1284	1410	1410	1920	1908
LUBRICATION SYSTEM										
Oil consumption	l/h	0,17	0,03	0,04	0,05	0,10	0,11	0,12	0,11	0,12
Lubricating oil capacity (3)	l	29	29	29	36	35	35	35	64	64
Minimum oil pressure	bar	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
FUEL CONSUMPTION										
75% load	l/h	29,48	32,58	38,36	47,74	49,78	56,24	61,29	71,24	79,62
100% load	l/h	39,31	43,02	51,67	65,55	66,71	76,14	82,97	98,28	108,23
ELECTRIC SYSTEM										
Voltage	V	24	24	24	24	24	24	24	24	24
Type		NEG. TO GND.								
Battery (ACP)	Ah	2X145	2X145	2X145	2X145	2X145	2X145	2X145	2X145	2X145
Starting motor	kW	5.4	5.4	5.4	6.6	6	6	6	7.5	7.5
ALTERNATOR										
Brand		MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE	MECC ALTE
Model		ECO 37 2S	ECO 37 2S	ECO 37 1L	ECO 37 2L	ECO 37 3L	ECO 40 1S	ECO 40 1S	ECO 40 2S	ECO 40 3S
N° of poles		4	4	4	4	4	4	4	4	4
Efficiency at 3/4	%	92	92	92,8	93	92,8	92,5	92,5	92,6	92,7
Power at 40° C	kVA/kWe	200/160	200/160	250/200	300/240	340/272	400/320	400/320	450/360	500/400
N° of wires		12	12	12	12	12		12	12	12
Insulation		CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H
Protection		IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21	IP 21
Regulation		ELECTRONIC (±1,5% WITH ANY POWER FACTOR AND SPEED VARIATIONS BETWEEN -5% AND +30%)								

(1) according to ISO8528

(2) prime power (after turbine)

(3) including filters

For other voltages, please request to factory

	LOMBARDINI		DEUTZ							
	AIR COOLED		AIR COOLED				OIL COOLED			
	PBA7-10	PSA7-10	PBA13	PSA20-25	PSA30	PSA40-60	PBL20-30	PBL40	PSL20-30	PSL40
GEN SET										
Battery isolation switch	-	X	-	X	X	X	-	-	X	X
Galvanized skid base frame with integrated drip tray and fork lift channels (only soundproof versions)	-	-	-	-	-	-	-	-	X	X
Leak proof tray (only for soundproof versions)	-	-	-	-	-	X	-	-	-	-
Site trailer (only for soundproof versions)	-	-	-	-	-	X	X	X	X	X
Road trailer-rigid bar (only for soundproof versions)	-	-	-	-	-	X	X	X	X	X
Sockets kit (only soundproof versions)	-	-	-	-	-	X	S	S	X	X
Rental kit (battery switch, socket panel according to size, Fuel filter with water separator and drain, earth rod with cable and three way fuel valve for connection to external tank)	-	-	-	-	-	-	-	-	X	X
ENGINE										
Engine electronic governor	-	-	-	X	X	X	X	X	X	X
Coolant pre-heating system (for automatic start)	-	X	-	X	X	X	X	X	X	X
Low temperature engine starting kit	-	-	-	X	X	X	-	-	X	X
Oil pressure indicator	-	-	-	X	X	X	-	-	S	S
Manual oil drain pump (standard on soundproof versions)	-	-	-	X	X	X	-	-	X	X
Residential silencer (standard on soundproof versions)	-	-	-	X	X	X	-	-	X	X
FUEL SYSTEM										
Extended fuel tank capacity	-	-	-	X	X	X	-	-	X	X
Automatic fuel transfer pump	-	-	-	X	X	X	-	-	X	X
ALTERNATOR (MECC ALTE)										
IP 23 protected alternator	S	S	S	S	S	X	S	X	S	X
Tropicalized alternator	-	X	-	X	X	X	X	X	X	X
Anti-condensation heater	-	X	-	X	X	X	X	X	X	X
Alternator parallel kit (with mains)	-	-	-	X	X	X	-	-	X	X
Alternator parallel kit (with other alternator)	-	-	-	X	X	X	-	-	X	X
Stamford alternator variant	-	-	-	X	X	X	-	-	X	X
OTHER OPTIONS										
Manual Control Panel with analogue instrumentation	UNDER DEVELOPMENT DURING 2003									
Single phase version	-	-	-	X	X	X	-	-	X	X
Load Transfer Switch Panel (LTS) for ACP versions	-	X	-	X	X	X	X	X	X	X
Remote start by external signal	-	-	-	X	X	X	-	-	X	X
Free voltage terminals for remote indications (max 3)	-	-	-	X	X	X	-	-	X	X
Connection kit for communication via Modem / GSM (only for automatic versions)	-	-	-	X	X	X	-	-	X	X
Timer (programmable clock)	-	-	-	X	X	X	-	-	X	X

S : Standard
X : Optional
- : Not available

	YANMAR	DEUTZ							VOLVO				
	WATER COOLED												
	PSW 15-20	PSW 60	PSW 75	PSW 105-135	PSW 160	PSW 230-315	PSW 380	PSW 430-505	PSW 185	PSW 200-250	PSW 300-325	PSW 375-400	PSW 450-500
GEN SET													
Battery isolation switch	X	X	X	X	X	X	X	X	X	X	X	X	X
Galvanized skid base frame with integrated drip tray and fork lift channels (only soundproof versions)	X	X	-	-	-	-	-	-	-	-	-	-	-
Leak proof tray (only for soundproof versions)	-	-	X	X	X	X	X	X	X	X	X	X	X
Site trailer (only for soundproof versions)	X	X	X	X	X	-	-	-	X	X	-	-	-
Road trailer-rigid bar (only for soundproof versions)	X	X	X	X	X	-	-	-	X	X	-	-	-
Sockets kit (only soundproof versions)	X	X	X	X	X	X	X	X	X	X	X	X	X
Rental kit (battery switch, socket panel according to size, Fuel filter with water separator and drain, earth rod with cable and three way fuel valve for connection to external tank)	X	X	-	-	-	-	-	-	-	-	-	-	-
ENGINE													
Engine electronic governor	-	X	X	X	X	S	S	S	X	S	S	S	S
Coolant pre-heating system (for automatic start)	X	X	X	X	X	X	X	X	X	X	X	X	X
Low temperature engine starting kit	-	X	X	X	X	X	X	X	X	X	X	X	X
Oil pressure indicator	S	X	X	X	X	S	S	S	S	S	S	S	S
Manual oil drain pump (standard on soundproof versions)	S	X	X	X	X	X	X	X	S	S	S	S	S
Residential silencer (standard on soundproof versions)	S	X	X	X	X	X	X	X	X	X	X	X	X
FUEL SYSTEM													
Extended fuel tank capacity	-	X	X	X	X	X	X	-	X	X	X	X	-
Automatic fuel transfer pump	X	X	X	X	X	X	X	X	X	X	X	X	X
ALTERNATOR (MECC ALTE)													
IP 23 protected alternator	S	X	X	X	X	X	X	X	X	X	X	X	X
Tropicalized alternator	X	X	X	S	S	S	S	S	S	S	S	S	S
Anti-condensation heater	X	X	X	X	X	X	X	X	X	X	X	X	X
Alternator parallel kit (with mains)	X	X	X	X	X	X	X	X	X	X	X	X	X
Alternator parallel kit (with other alternator)	X	X	X	X	X	X	S	S	X	X	X	S	S
Stamford alternator variant	X	X	X	X	X	X	X	X	X	X	X	X	X
OTHER OPTIONS													
Manual Control Panel with analogue instrumentation	UNDER DEVELOPMENT DURING 2003												
Single phase version	X	X	X	X	X	-	-	-	-	-	-	-	-
Load Transfer Switch Panel (LTS) for ACP versions	X	X	X	X	X	X	X	X	X	X	X	X	X
Remote start by external signal	X	X	X	X	X	X	X	X	X	X	X	X	X
Free voltage terminals for remote indications (max 3)	X	X	X	X	X	X	X	X	X	X	X	X	X
Connection kit for communication via Modem / GSM (only for automatic versions)	X	X	X	X	X	X	X	X	X	X	X	X	X
Timer (programmable clock)	X	X	X	X	X	X	X	X	X	X	X	X	X

S : Standard
X : Optional
- : Not available

POWER ENGINEERING 500 - 2500 KVA

To complete the Power Engineering range, there are also 3 series of generators available in either open or canopied versions, 50 Hz and 60 Hz.

MISTRAL

760 and 1025 kVA Deutz engines

TORNADO

from 640 to 2500 kVA MTU engines

TRAMONTANA

from 645 to 2000 kVA Perkins engines



The producer reserves the right to introduce changes to models and features without prior notice. Scope of supply can be modified according to the different markets.