

## POWER ENGINEERING

6 - 500 KVA

50 Hz - 1500 rpm







## INDEX

GBA/GSA12L - GBA6D-17D.	Open set, air cooled4
GSA22D-65D	Open set, air cooled6
GSA65D	Soundproof, air cooled8
GSL22D-42D	Open set, oil cooled10
GSL22D-42D - GSW15P-22P	
GSW65D-170D	PowerOnRent12
GBL22D-42D	Soundproof, oil cooled14
GSW65D-560D	Open set, water cooled16
GSW195D-560D	Soundproof, water cooled18
GSW275V-590V	Open set, water cooled20
GSW275V-590V	Soundproof, water cooled22
Control Panels definitions	25
Manual control panels	26
Automatic control panels	28
Technical features	30
Options	33



## PRAMAC GROUP

PRAMAC is a young 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 Pramac products and a dedicated worldwide after sales service organisation.



## **POWER ENGINEERING**

Our Power Engineering division is the natural result of the experience acquired by Pramac Group 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. Pramac 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 250kVA generators suitable for the rental market
- Customized Solutions Tailored solutions to meet special requirements until 2500kVA.



#### **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



#### GBA/GSA12L GBA6D-17D: 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		GBA6D	GBA/GSA12L	GBA14D	GBA17D
PRIME POWER	kVA/kWe	5,6/4,5	10,1/8,1	12,7/10,2	15,0/12,0
EMERGENCY POWER	kVA/kWe	5,9/4,7	11,3/9,0	13,4/10,7	16,2/13,0
ENGINE		DEUTZ D909 L1	LOMBARDINI 9LD 625	DEUTZ F2L 2011	DEUTZ D910 L02
AUTONOMY (100% LOAD)	h	9,6	3,3	29,7	12,2
FUEL TANK CAPAC.	1	14,5	10	90	50
DIMENSIONS (LxWxH)	mm	1226x700x960	1226x700x1015	1400x750x1150	1226x700x1150
WEIGHT	kg	275	280	468	420

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

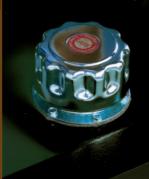
## **OPEN SET**AIR COOLED

# GBA/GSA12L GBA6D-17D

#### Facility of handling

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





#### Large autonomy

 High capacity fuel tank ((a)) for longer running without fuel refilling (GBA14D)

#### A great reliability

- The IP 21 protection ensures protection against water and dust.
- Rated capacity battery ((a)) 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 ((a)) 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 (GSA12L)





#### 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 (GBA/GSA12L & GBA17D) ((ÔI))
- Engines have long maintenance intervals and low fuel consumption

#### Easier use

- The fuel tank ((a)), mounted on the engine (GBA6D-17D&GBA/GSA12L), 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



CERTIFICATION SERVICE



Production sites according to ISO 9001 / ISO 14001 directions

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



## GSA22D-65D: 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.

#### <u>Security</u>

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		GSA22D GSA30D		GSA42D	GSA65D
PRIME POWER	kVA/kWe	19,0/15,2	29,0/23,2	39,9/31,9	61,0/48,8
EMERGENCY POWER	kVA/kWe	20,1/16,1	30,0/24,0	41,0/32,8	62,1/49,7
ENGINE		F3L 2011	F4L 2011	F4L 912 GEN	F6L 912 GEN
AUTONOMY (75% LOAD)	h	25,8	17,2	12,7	22,8
FUEL TANK CAPAC.	I	90	90	90	240
DIMENSIONS (LxWxH)	mm	1400x750x1700	1400x750x1700	1800x750x1710	2200x1000x1620
WEIGHT	kg	550	605	776	954

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

## SERIES GSA22D-65D

#### **OPEN SET** AIR COOLED

#### 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 alternatorsConstant supply guaranteed by the electronic voltage regulator (O) 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 (a) to facilitate installation and fork truck transport





#### Large autonomy

High capacity fuel tank for longer work without fuel refilling (📵)

#### 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 ((a)) with easy removable cartridge



4000 400

- 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 ((C)) against accidental contacts
- Industrial silencer to reduce engine noise emissions

#### **Economic**

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



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions



#### SERVICE

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

#### SOUND PROOF AIR COOLED

#### GSA65D: 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		GSA65D
PRIME POWER	kVA/kWe	61,0/48,8
EMERGENCY POWER	kVA/kWe	62,1/49,7
ENGINE		F6L 912
AUTONOMY (75% LOAD)	h	9,9
FUEL TANK CAPAC.	- 1	105
SOUND POWER LEVEL	LWA	97
SOUND PRESSURE AT 7 M	dB(A)	72
DIMENSIONS (LxWxH)	mm	2600x1150x1680
WEIGHT	kg	1310

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

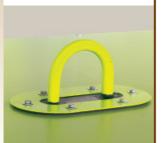
EMERGENCY POWER (LTP) (ISO 3046) RATING: MAXIMUM POWER WHICH CAN BE DELIVERED FOR UP TO 500 HOURS PER YEAR OF WHICH A MAXIMUM OF 300 HOURS IS CONTINUOUS RUNNING
ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

## SERIES GSA65D

#### SOUND PROOF AIR COOLED

#### Facility of handling

- A central lifting bridge ((a)) 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 ((C)) 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.



Reliability



- Engine cooling improved by the fan (O) 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 ( ).
- 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 ( ( ).
- 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.



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions



#### SERVICE

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



## GSL22D-42D: 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		GSL22D	GSL30D	GSL42D
PRIME POWER	kVA/kWe	20,0/16,0	29,0/23,2	39,3/31,4
EMERGENCY POWER	kVA/kWe	21,1/16,8	30,0/24,0	41,2/33,0
ENGINE		F3M 2011	F4M 2011	BF4M 2011
AUTONOMY (75% LOAD)	h	23,1	16,9	13,2
FUEL TANK CAPAC.	1	90	90	90
DIMENSIONS (LxWxH)	mm	1400x750x1700	1800x750x1720	1800x750x1720
WEIGHT	kg	554	714	761

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**

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

#### Large autonomy

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



#### 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 ((O)) 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 guaranteeed by the electronic voltage regulator under any generator operating condition.
- Anti-vibration isolators ((Ô)) ensure vibration free operation.



#### Facility of use

- High efficiency air filter (\(\hat{\O}\))
   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 ((O)) to reduce engine noise emissions.



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions



#### SERVICE

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

#### GSL22D-42D - GSW15P-22P GSW65D-170D: Rental Energy

This range of generators is suitable for any application. They have all the features associated with Pramac 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		GSW15P	GSW22P	GSL22D	GSL30D	GSL42D	GSW65D	GSW80D	GSW110D	GSW145D	GSW170D
PRIME POWER	kVA/kWe	13,0/10,4	19,4/15,5	20,0/16,0	29,0/23,0	39,3/31,4	58/46	74/59	102/82	135/108	159/127
EMERGENCY POWER	kVA/kWe	14,4/11,5	21,4/17,1	21,1/16,8	30,0/24,0	41,2/33,0	63/50	78/63	108/87	142/113	167/134
ENGINE		PERKINS	PERKINS	DEUTZ							
ENGINE		403C-15G	404C-22G	F3M 2011	F4M 2011	BF4M 2011	BF4M 2012 G2	BF4M 2012 C	BF4M 1013 EC	BF6M 1013 E	BF6M 1013 EC
AUTONOMY (75% LOAD)	h	17,9	12,5	31,4	21,6	16,3	33,4	30	21	16	14,3
FUEL TANK CAPAC.	I	50	50	120	120	120	350	350	350	350	350
SOUND POWER LEVEL	LWA	86	87	92	92	92	97	97	97	97	97
SOUND PRESSURE AT 7 M	dB(A)	61	62	67	67	67	72	72	72	72	72
DIMENSIONS (LxWxH)	mm	1800x830x1295	1800x830x1295	2225x1100x1290	2225x1100x1290	2225x1100x1290	2700x1150x1535	2700x1150x1535	3000x1150x1680	3400x1250x1680	3400x1250x1680
WEIGHT	kg	700	765	910	974	1064	1300	1460	1900	2180	2250

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

## SERIES GSL22D-42D - GSW15P-22P **GSW**65D-170D

#### Facility of handling

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





#### arae autonomy

High capacity fuel tank for longer running time without fuel refilling (a).

#### 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 ( ).





#### Silent

- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum (a).
- 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 oil cooled engines (GSL), the single fluid for both cooling and lubrication avoids corrosion and cavitations (Ô).
- 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 (GSL)
- 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. (O)
- Leak proof tray for liquid containment eliminates the posibility of environmental contamination

#### Easy maintenance

- Engine maintenance is easier through large doors.
- Front panels are completely detachable. Easy access for radiator cleaning and alternator service (10).
- A sturdy manual oil drain pump is included.
- External fuel filling for easier supply of fuel (GSL).



#### Rental optional kits



- Manual analogic control panel
- 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
- 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 / ISO 14001 directions



#### SERVICE

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

SOUND PROOF OIL COOLED

#### GBL22D-42D: 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		GBL22D	GBL30D	GBL42D
PRIME POWER	kVA/kWe	20,0/16,0	29,0/23,2	39,3/31,4
EMERGENCY POWER	kVA/kWe	21,1/16,8	30,0/24,0	41,2/33,0
ENGINE	DEUTZ	F3M 2011	F4M 2011	BF4M 2011
AUTONOMY (75% LOAD)	h	13,1	9,6	7,2
FUEL TANK CAPAC.	- 1	51	51	51
SOUND POWER LEVEL	LWA	92	92	92
SOUND PRESSURE AT 7 M	dB(A)	67	67	67
DIMENSIONS (LxWxH)	mm	2000x920x1300	2000x920x1300	2000x920x1300
WEIGHT	kg	784	848	942

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 OIL COOLED

#### 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 (O).





#### Large autonomy

High capacity fuel tank ((a)) 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
- 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 ((a)) for easier supply of fuel .
- They require no special foundations, so that the units can be installed anywhere.

#### Reliability

- In oil cooled engines ((a)), 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.





- 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 (10).



- Optical fuel level ((a)) 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.



CERTIFICATION SERVICE



Production sites according to ISO 9001 / ISO 14001 directions

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

#### GSW65D-560D: 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		GSW65D	GSW80D	GSW110D	GSW145D	GSW170D	GSW195D	GSW220D	GSW530D	GSW560D
PRIME POWER	kVA/kWe	58/46	74/59	102/82	135/108	159/127	186/149	208/166	459/367	509/407
EMERGENCY POWER	kVA/kWe	63/50	78/63	108/87	142/113	167/134	194/155	220/176	528/422	546/437
ENGINE	DEUTZ	BF4M 2012 G2	BF4M 2012 C	BF4M 1013 EC	BF6M 1013 E	BF6M 1013 EC	BF6M 1013 FC G2	BF6M 1013 FC G3	BF8M 1015C G2	BF8M 1015CP
AUTONOMY (75% LOAD)	h	23,4	20,4	14,4	10,4	9,8	8	7,1	8,8	7,5
FUEL TANK CAPAC.	- 1	240	240	240	240	240	350	350	636	636
DIMENSIONS (LxWxH)	mm	2200x1000x1620	2200x1000x1620	2200x1000x1620	2600x1000x1620	2600x1000x1620	2650x1100x1965	2650x1100x1965	3300x1650x2105	3500x1500x2120
WEIGHT	kg	865	945	1326	1545	1615	1980	2030	3860	3910

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 assures a long service life
- Engines with long maintenance intervals and low fuel consumption (ÎÎ)



Safety



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

• High capacity fuel tank for longer work without fuel refilling ([O])

#### 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.
- Constant supply guaranteed by the electronic voltage regulator under any generator operating condition.



#### 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 ((a))
   with easy removable
   cartridge.

#### Security

- 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.
- Moving and rotating parts protection against accidental contacts.
- Industrial silencer to reduce engine noise emissions.



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions



#### SERVICE

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

#### GSW195D-560D: Suitable for specific applications

These generators are designed for stand-by applications, and fulfil the demand for "silent" power. Sturdy and reliable, like all Pramac 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		GSW195D	GSW220D	GSW530D	GSW560D
PRIME POWER	kVA/kWe	186/149	208/166	459/367	509/407
EMERGENCY POWER	kVA/kWe	194/155	220/176	528/422	546/437
ENGINE	DEUTZ	BF6M 1013 FC G2	BF6M 1013 FC G3	BF8M 1015C G2	BF8M 1015CP
AUTONOMY (75% LOAD)	h	8	7,1	8,8	7,5
FUEL TANK CAPAC.	I	350	350	636	636
SOUND POWER LEVEL	LWA	97	97	98	101
SOUND PRESSURE AT 7 M	dB(A)	72	72	73	76
DIMENSIONS (LxWxH)	mm	3400x1250x2070	3400x1250x2070	4300x1650x2270	4300x1650x2270
WEIGHT	kg	2950	3000	5130	5155

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 WATER COOLED

#### Facility of handling

• A central lifting bridge ((C)) 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 (a).

#### 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 ( ).





- · 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 (O) under any generator operating condition.
- Rated capacity battery for immediate engine



- 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.
- Access doors are equipped with lockable
- Soundproofing materials ((a)) are highly fireproof.

#### Easier use

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



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions



#### SERVICE

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

#### GSW275V-590V: 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		GSW275V	GSW330V	GSW415V	GSW450V	GSW510V	GSW560V	GSW590V
PRIME POWER	kVA/kWe	257/205	315/252	378/302	411/329	461/369	505/404	571/457
EMERGENCY POWER	kVA/kWe	275/220	330/264	414/331	437/350	507/406	546/437	601/481
ENGINE	VOLVO	TAD 740 GE	TAD 941 GE	TAD 1241 GE	TAD 1242 GE	TAD 1640 GE	TAD 1641 GE	TAD 1642 GE
AUTONOMY (75% LOAD)	h	11,4	13,2	11,2	10,2	9,4	8,4	7,4
FUEL TANK CAPAC.	I	448	636	636	636	636	636	636
DIMENSIONS (LxWxH)	mm	2950x1300x1800	3300x1400x1877	3300x1400x1907	3300x1400x1907	3500x1500x2120	3500x1500x2120	3500x1500x2120
WEIGHT	kg	2245	2800	3010	3100	3600	3770	3850

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 CAPACITY IS AVAILABLE ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

## SERIES GSW275V-590V

## **OPEN SET**WATER COOLED



#### Reliable and powerful

- Thanks to the electronic governor Volvo Penta engines have an improved capacity to recover frequency after an abrupt load application.
- Tropicalised alternator continuously mantaining very good insulation level. The impregnation with epoxi resins protects the alternator widdings particular environmental conditions.
- Highly efficient alternators.
- Constant supply guaranteeed by the electronic voltage regulator under any generator operating condition.
- The in-line six cylinders engine design ((a)) 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 contruction of the generator ((a)) 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 ((O)) protects against incorrect use of the generator.

#### Security

#### Large autonomy

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



- 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 ((Ô)) to reduce engine noise emissions.





- A sturdy manual oil drain pump ((a)) 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 / ISO 14001 directions



#### SERVICE

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

## GSW275V-590V: 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

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

#### Silent

High efficiency in reducing noise to the minimum.

MODEL		GSW275V	GSW330V	GSW415V	GSW450V	GSW510V	GSW560V	GSW590V
PRIME POWER	kVA/kWe	257/205	315/252	378/302	411/329	461/369	505/404	571/457
<b>EMERGENCY POWER</b>	kVA/kWe	275/220	330/264	414/331	437/350	507/406	546/437	601/481
ENGINE	VOLVO	TAD 740 GE	TAD 941 GE	TAD 1241 GE	TAD 1242 GE	TAD 1640 GE	TAD 1641 GE	TAD 1642 GE
<b>AUTONOMY (75% LOAD)</b>	h	11,4	13,2	11,2	10,2	9,4	8,4	7,4
FUEL TANK CAPAC.	I	448	636	636	636	636	636	636
SOUND POWER LEVEL	LWA	97	97	97	97	98	101	101
SOUND PRESSURE AT 7 M	dB(A)	72	72	72	72	73	76	76
DIMENSIONS (LxWxH)	mm	3550x1360x2016	4000x1460x2045	4000x1460x2045	4000x1460x2045	4500x1560x2270	4500x1560x2270	4500x1560x2270
WEIGHT	kg	3165	4000	4160	4200	5380	5730	5810

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 CAPACITY IS AVAILABLE ALL MODELS COMPLY WITH TA LUFT-4000 REGULATION

## SERIES GSW275V-590V

#### SOUND PROOF WATER COOLED

#### Silent

- Soundproof canopy built in high quality steel and sound attenuating material reduces noise emissions to a minimum.
- Highly efficient silencer ((a)) 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 ((a)) allows the unit to be easily lifted by a crane.

#### Reliable and powerful



- Thanks to the electronic governor Volvo Penta engines ((□)) have an improved capacity to be able to recover frequency after an abrupt load application.
- Tropicalised alternator continuously mantaining very good insulation level. The impregnation with epoxi resins protects the alternator widdings 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 ((Ô))
- Access doors are equipped with lockable handles.
- Soundproofing materials are highly fireproof.

## Easier use and maintenance

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



#### CERTIFICATION

Production sites according to ISO 9001 / ISO 14001 directions

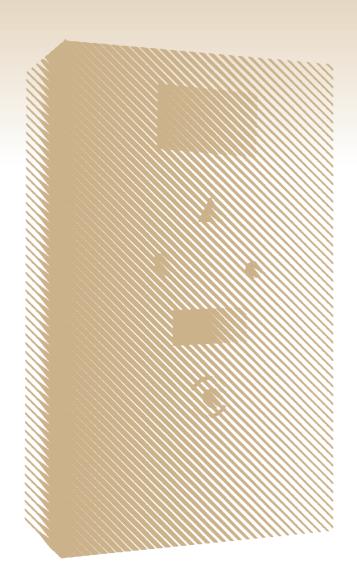


#### SERVICE

After sales service world wide.
12 months warranty.
All the gensets are completly 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

GBA12L/GBA6D-17D

OPEN SET



GSA 22D-65D / GSL 22D-42D GSW 65D-170D / GSW195D-220D OP. SET GSA 65D / GSW 65D-80D SOUNDPROOF



GBL22D-42D SOUNDPROOF



**GSA12L**OPENSET



GSL22D-42D/GSW15P-22P GSW110D-170D / GSW195D-220D SOUNDPROOF



**GSA22D-65D/GSL22D-42D GSW15P-22P/GSW65D-170D**OPEN SET + SOUNDPROOF (OPTION)



# MANUAL CONTROL PANELS

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

SERIES	GBA12L GBA6D-17D	GSA12L	GSA22 (OP			65D P)	GSW65	2D-42D D-170D PEN)	GSL22D-42 22P GSW65	PD GSW15P- D-170D (SP)	GBL 22D-42D (SP)	GSW195D 220D (OPEN)	GSW195D 220D (SP)
Analana (Dinital in atmospherica)	Ι , Ι	^		Δ.	_ <u>_</u>	Δ.	I 5	Ι Δ	I D		Ι ,		
Analogue/Digital instrumentation	A	A 1	D	A	D	A	D	A	D	A	A	D	D
Generating set voltage (1 or 3 phases)	1	1	3	3	3	3	3	3	3	3	1	3	3
Generating set ammeter (1 or 3 phases)	-	1	3	3	3	3	3	3	3	3	1	3	3
Frequency meter	-	•	•	•	•	•	•	•	•	•	-	•	•
Hoursmeter	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery voltage	-	-	•	-	•	-	•	-	•	-	-	•	•
Power (kVA, kW, kVAr, cos phi)	-	-	•	-	•	-	•	-	•	-	-	•	•
Fuel level	-	-	•	•	•	•	•	•	•	•	-	•	•
Oil pressure	-	-	-	•	-	•	-	•	-	•	-	•	•
Engine temperature	-	-	-	•	-	•	•	•	•	•	-	•	•
ALARMS								1					
Over-frequency	-	-	•	-	•	-	•	-	•	-	-	•	•
Battery charger failure	•	•	-	•	-	•	-	•	-	•	•	-	-
Battery voltage out of limits	-	-	•	-	•	-	•	-	•	-	-	•	•
Low fuel level	-	-	•	•	•	•	•	•	•	•	-	•	•
Low oil pressure	•	•	•	•	•	•	•	•	•	•	•	•	•
High engine temperature	-	-	•	•	•	•	•	•	•	•	•	•	•
External shutdown	-	•	•	-	•	-	•	-	•	-	-	•	•
SHUTDOWN PROTECTIONS													
Generator voltage out of limits	-	-	•	-	•	-	•	-	•	-	-	•	•
Over-load	-	-	•	-	•	-	•	-	•	-	-	•	•
Frequency out of limits	-	-	•	-	•	-	•	-	•	-	-	•	•
Battery charger failure	-	•	-	•	-	•	-	•	-	•	•	-	-
Low fuel level	-	-	•	•	•	•	•	•	•	•	-	•	•
Low oil pressure	-	•	•	•	•	•	•	•	•	•	•	•	•
High temperature	-	-	•	•	•	•	•	•	•	•	•	•	•
Circuit breaker	•	•	•	•	•	•	•	•	•	•	•	•	•
Differential protection	-	•	•	•	•	•	•	•	•	•	•	•	•
SOCKETS													
Shuko socket	- 1	1	-	-	0	0	-	-	0	0	1	-	0
Single phase CE socket	1	1	-	_	0	0	-	-	0	0	2	-	0
Three phase CE socket	1	1	_	-	0	0	-	-	0	0	2	-	0
OTHER FEATURES													
Emergency stop button	-	•	•	•	•	•	•	•	•	•	•	•	•
Terminal board	-	_	_	_	_	_	-	_	• 🗆	• 🗆	-	•	•
External start capability	-	_	•	0	•	0	•	0	0	0 🛆	-	•	•

- •: Standard
- o: Optional
- ( ): Not available
- □: Not available on GSW65D/80D
- △: Not available on GSW15P/22P

## AUTOMATIC CONTROL PANELS

**GSA12L**OPEN SET



GSA22D-65D/GSL22D-42D/GSW65D-170D / 195D-220D OP. SET GSA65D/GSW65D-80D SOUNDPROOF



GBL22D-42D SOUNDPROOF



**GSL22D-42D/GSW15P-22P/GSW65D-170D 195D-220D** SOUNDPROOF



GSW530D-GSW560D OPEN SET + SOUNDPROOF GSW275V-GSW590V OPEN SET + SOUNDPROOF



#### LOAD TRANSFER SWITCH PANELS



## AUTOMATIC MAINS FAILURE PANELS

GSA12L OPEN SET
GBL22D-42D SOUNDPROOF



GSA22D-65D/GSL22D-42D/GSW65D-560D GSW195V-560V OPEN SET GSA65D/GSL22-42D/GSW15P-22P/GSW65D-170D GSW330D-560D/GSW195V-560V 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	GSA	12L	GSA22 (OP	:D-65D :EN)		.65D :P)	GSW65	D-42D D-170D 20D (OP)	GSL22D-42D GSW65 GSW195D	D-170D	GBL22	D-42D	GSW530 (OP)	)D-560D (SP)		5D-590D I (SP)
	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
Generating set voltage (1 or 3 phases)	1	1	3	3	3	3	3	3	3	3	1	1	3	3	3	3
Mains voltage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Generating set ammeter (1 or 3 phaseS)	1	1	3	3	3	3	3	3	3	3	1	1	3	3	3	3
Generator frequency	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hoursmeter	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery voltage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Speed	_	_	•	•	•	•	•	•	•	•	_	_	•	•	•	•
Power (kVA, kW, kVAr, cos phi)	_	_	•	•	•	•	•	•		•	_	_	•	•	•	•
Fuel level	_	_	•	•	•	•	•	•	•	•	_	_	•	•	•	•
Oil pressure	_	_	-	_	-	_	_	_	-	-	_	_	•	•	•	•
Engine temperature	_	-	-	-	-	-	•	•	•	•	-	-	•	•	•	•
ALARMS																
Generator voltage out of limits	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Over-load	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery charger failure	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery voltage out of limits	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Frequency out of limits	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low fuel level	_	_	•	•	•	•	•	•	•	•	_	-	•	•	•	•
Low oil pressure	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
High temperature	_	_	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Fail to start	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
External shutdown	-	-	•	•	•	•	•	•	•	•	_	-	•	•	•	•
SHUTDOWN PROTECTIONS																
Generator voltage out of limits	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Over-load	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Frequency out of limits	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery charger failure	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low fuel level	-	-	•	•	•	•	•	•	•	•	-	-	•	•	•	•
Low oil pressure	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
High temperature	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Circuit breaker	•	_	•	-	•	-	•	-	•	-	•	-	•	-	•	-
Differential protection	•	-	•	-	•	-	•	-	•	-	•	-	•	-	•	-
SOCKETS																
Shuko socket	-	-	-	-	0	-	l -	-	0	-	_	-	-	-	0	-
Single phase CE socket	-	-	-	-	0	-	-	-	0	-	-	-	-	-	0	-
Three phase CE socket	-	-	-	-	0	-	-	-	0	-	1	1	-	-	0	-
OTHER FEATURES																
Emergency stop button	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Acustic alarm	-	-	•	•	•	•	•	•	•	•	-	•	•	•	•	•
Phases detector	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Battery charger	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Terminals for an external panel connexion. (LTS)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Load Transfer Switch (LTS) panel	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
External start capability	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

•: Standard

o: Optional

( - ): Not available

#### **TECHNICAL FEATURES**

# GBA/GSA<sub>12L</sub> - GBA<sub>6D-17D</sub> GSA<sub>22D-65D</sub> - GBL/GSL<sub>22D-42D</sub>

		LOMBARDINI	LOMBARDINI DEUTZ									
		AIR COOLED				AIR COOLEC	)				OIL COOLED	
		GBA/GSA12L	GBA6D	GBA14D	GBA17D	GSA22D	GSA30D	GSA42D	GSA65D	GBL/GSL22D	GBL/GSL30D	GBL/GSL42D
GEN SET												
Prime power [PRP]	kVA/kWe	10,1/8,1	5,6/4,5	12,7/10,2	, ,	19,0/15,2	29,0/23,2		, ,			39,3/31,4
Emergency power [LTP]	kVA/kWe	11,3/9,0	5,9/4,7	13,4/10,7	16,2/13,0	20,1/16,1	29,9/23,9		62,1/49,7	21,1/16,8	30,0/24,0	41,2/33,0
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
ENGINE												
Brand		LOMBARDINI					DEI					
Model		9LD 625	D909 L1	F2L2011	D910 L02	F3L2011	F4L2011	F4L912	F6L912	F3M2011	F4M2011	BF4M2011
Prime power	kWm	9,6	5,5	12	14	19	27,6	37	55	19	27,6	36,4
Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Intake						NATU						TURB0
Cooling		AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR	OIL	OIL	OIL
Cylinders		2 IN LINE	1	2 IN LINE	2 IN LINE	3 IN LINE	4 IN LINE	4 IN LINE	6 IN LINE	3 IN LINE	4 IN LINE	4 IN LINE
Displacement	cm3	1248	710	1550	1650	2330	3110	3770	5650	2330	3110	3110
Standard governor							<u> MECHANICA</u>					
Cooling air flow	m3/h	1578 (2)	-	1065	-	1075	1490	1810	2610	1800	1800	2370
LUBRICATION SYSTEM												
Lubricating oil capacity (1)	- 1	2,8	2,1	6	4	5,5	10	11	13,5	5,5	10	10
FUEL CONSUMPTION												
75% load	l/h	2,4	1,1	2,5	3,0	3,9	5,2	7,1	10,5	3,9	5,3	7,1
100% load	l/h	3,2	1,5	3,4	4,0	5,2	6,9	9,4	14,0	5,2	7,1	9,4
ELECTRIC SYSTEM												
Battery (ACP)	Ah	1X55	1X55	1X70	1X70	1X70	1X70	1X95	1X95	1X70	1X70	1X70
Starting motor	kW	-	2	3	3	3	3	3	3	3	3	3
ALTERNATOR												
Brand			LII			LINZ			STAM			
Model		E1S13 S/4	E1S13 S/4	E1S13 M/4	E1S13 M/4	E1S13 M/4	BCI 184 F	BCI 184 J	UCI 224 E	BCI 184 E	BCI 184 F	BCI 184 J
Efficiency at 3/4	%	84,8	81,3	85,4	86,3	86,5	85,8	86,6	88,8	84,2	85,8	86,6
Power at 27° C	kVA/kWe	11/8,8	7/5,6	13/10,4	16/12,8	19,0/15,2	29/23,2	44/35,2	61/48,8	22,5/18	29/23,2	44/35,2
Insulation			CLA			CLASS H		CLASS H			CLASS H	
Protection			IP	21		IP 21		IP 23			IP 23	
Regulation			COMP	OUND		COMPOUND		IC (+/- 1,5% INE GOVERN			IIC (+/- 1,5% INE GOVERN	

<sup>(1)</sup> sump, including filters (2) at 3000 rpm

For other voltages, please request to factory



		PFR	KINS					DEUTZ				
		WATER					W	ATER COOL	FD			
		GSW15P	GSW22P	GSW65D	GSW80D	GSW110D				GSWD220D	GSW530D	GSW560D
GEN SET	_	40.111	4011221	4011002	40002	00.1110	1 40112102	1 40.112.02	40.11200	401152205	40110000	4011000
Prime power [PRP]	kVA/kWe	13,0/10,4	19,4/15,5	58/46	74/59	102/82	135/108	159/127	186/149	208/166	459/367	509/407
Emergency power [LTP]	kVA/kWe	14,4/11,5		63/50	78/63	108/86	142/113	167/134	194/155	220/176	528/422	546/437
Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50
Three Phases Voltage	٧	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230	400/230
ENGINE												
Brand		PER	KINS					DEUTZ				
Model		403C-15G	404C-22G	BF4M2012 G2	BF4M2012C	BF4M1013EC	BF6M1013E	BF6M1013EC	BF6M 1013 FC G2	BF6M1013 FC G3	BF8M1015C G2	BF8M 1015CP
Prime power	kWm	12	18,4	52	66,1	91,1	117,8	138,1	162	179	391,3	433,9
Speed	rpm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Intake		NATU	NATURAL TURBO TURBO, CAC TUR				TURBO		TURI	BOINTERCO	OLER	
Cooling		WA	ΓER					WATER				
Cylinders		3 IN LINE	4 IN LINE	4 IN LINE	4 IN LINE	4 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE	8 V	8 V
Displacement	cm3	1496	2216	4040	4040	4760	7150	7150	7150	7150	15900	15900
Standard governor		MECHA	ANICAL	MECHANICAL ELECTRONIC								
Cooling air flow	m3/h	2196	2412	5400	4680	6120	9000	10800	7377	8852	24120	33120
LUBRICATION SYSTEM												
Lubricating oil capacity (1)	I	6	10,6	8,5	8,5	11	20	20	34	34	45	45
FUEL CONSUMPTION												
75% load	l/h	2,7	4,0	10,3	11,7	16,7	21,9	24,5	29,5	32,4	72	86
100% load	l/h	3,6	5,3	13,7	15,7	22,2	29,2	32,7	39,3	43,3	96	114
ELECTRIC SYSTEM												
Battery (ACP)	Ah	1X70	1X70	1X95	1X95	1X145	1X145	1X145	2X145	2X145	2X155	2X155
Starting motor	kW	2	2	3	3	3,1	3,1	3,1	3,1	3,1	5,4	5,4
ALTERNATOR												
Brand		MECC ALTE					STAMFORD					C-ALTE
Model		ECO 3 2L	BCI 184 E	UCI 224 E	UCI 224 F	UCI 274 C	UCI 274 E	UCI 274 F	UCI 274 G	UCI 274 H	EC040 3S	EC040 3S
Efficiency at 3/4	%	86,8	84,2	88,8	89,9	90,3	91,7	92,3	92,4	93,3	93,9	93,9
Power at 27° C	kVA/kWe	14,3/11,4	22,5/18	61/50	77/62	106/85	145/116	170/136	187/150	212/170	546/437	546/437
Insulation		CLA	SS H					CLASS H				
Protection		IP	23					IP 23				
Regulation			ELECTF	RONIC (+/- 1,	5% WITH 4%	ENGINE GOVE	RNING)		ELECTRONIC	(+-1,5% WIT	H 4% ENGINE	GOVERNING)

<sup>(1)</sup> sump, including filters For other voltages, please request to factory



					VOLVO PENTA			
					WATER COOLED			
		GSW275V	GSW330V	GSW415V	GSW450V	GSW510V	GSW560V	GSW590V
GEN SET								
Prime power [PRP]	kVA/kWe	257/205	315/252	378/302	411/329	461/369	505/404	571/457
Emergency power [LTP]	kVA/kWe	275/220	330/264	414/331	437/350	507/406	546/437	601/481
Frequency	Hz	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
ENGINE								
Brand					VOLVO			
Model		TAD 740 GE	TAD 941 GE	TAD 1241 GE	TAD 1242 GE	TAD 1640 GE	TAD 1641 GE	TAD 1642 GE
Prime power	kWm	220	279	323	352	393	430	485
Speed	rpm	1500	1500	1500	1500	1500	1500	1500
Intake				TL	JRBO INTERCOOL	ER		
Cooling					WATER			
Cylinders		6 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE	6 IN LINE
Displacement	cm3	7280	9360	12130	12130	16120	16120	16120
Standard governor					ELECTRONIC			
Cooling air flow	m3/h	11508	17410	16525	19918	16820	21541	21541
LUBRICATION SYSTEM								
Lubricating oil capacity (1)		29	33	35	35	48	48	48
FUEL CONSUMPTION								
75% load	I/h	39	48	57	63	68	76	87
100% load	l/h	52	65	76	83	91	101	116
ELECTRIC SYSTEM								
Battery (ACP)	Ah	2X155	2X200	2X155	2X155	2X200	2X200	2X200
Starting motor	kW	5,4	5,4	6	6	6	6	6
ALTERNATOR								
Brand					MECC-ALTE			
Model		ECO 38 1L	ECO 38 2L	ECO 40 1S	ECO 40 1S	ECO 40 3S	ECO 40 3S	ECO 40 1L
Efficiency at 3/4	%	94,6	94,1	93,8	93,8	94,2	94,2	94,6
Power at 27° C	kVA/kWe	275/220	330/264	437/350	437/350	546/437	546/437	601/481
Insulation					CLASS H			
Protection					IP 21			
Regulation				ELECTRONIC (+/-	1,5% WITH 4% EN	GINE GOVERNING)		

(1) sump, including filters For other voltages, please request to factory

## SERIES AIR COOLED - OIL COOLED

	LOMB	LOMBARDINI DEUTZ							
		00LED		AIR COOLED				00LED	
	GBA12L	GSA12L	GBA6D-17D	GSA22D-30D	GSA42D-65D	GBL22D-30D	GBL42D	GSL22D-30D	GSL42D
GEN SET									
Galvanized skid base frame with integrated driptray and fork lift channels (only soundproof versions)	-	-	-	-	-	-	-	0	0
Leak proof tray (only for soundproof versions)	-	-	-	-	0	-	-	-	-
Site trailer (only for soundproof versions)	-	-	-	-	0	0	0	0	0
Road trailer-rigid bar (only for soundproof versions)	-	-	-	-	0	0	0	0	0
Sockets kit (only soundproof versions)	-	-	-	-	0	•	•	0	0
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)	-	-	-	1	-	-	-	0	0
Ligthing tower	-	-	-	-	-	0	0	0	0
ENGINE									
Engine electronic governor	-	-	-	0	0	0	0	0	0
Coolant pre-heating system (for automatic start)	-	-	-	0	0	0	0	0	0
Residential silencer (standard on soundproof versions)	-	-	-	0	0	-	-	0	0
FUEL SYSTEM									
Automatic fuel transfer pump	-	-	-	0	0	-	-	0	0
ALTERNATOR (STAMFORD)									
Alternator parallel kit (with mains)	-	-	-	-	-	-	-	-	-
Alternator parallel kit (with other alternator)	-	-	-	-	-	-	-	-	-
PMG alternator variant	-	-	-	-	0	-	-	-	0
OTHER OPTIONS									
Manual Control Panel with analogue instrumentation	-	•	-	0	0	•	•	•	•
Load Transfer Switch Panel (LTS) for ACP versions	-	0	-	0	0	0	0	0	0
Connection kit for communication via Modem / GSM (only for automatic versions)	-	-	-	0	0	-	-	0	0

- •: Standard •: Optional ( ): Not available

## SERIES WATER COOLED

	PERKINS							LV0	
					WATER COOLED			L COMPONY ALEX	GSW510V 560V
	GSW15P-22P	GSW65D-80D	GSW110D 145D	GSW170D	GSW530D 560D	GSW195V 220V	GSW275V	GSW330V 415V 450V	590V 560V
GEN SET									
Galvanized skid base frame with integrated driptray and fork lift channels	0	0	0		-	0	0	-	-
Leak proof tray	•	•	•	•	•	•	•	•	•
Site trailer	0	0	0	0	-	0	0	-	-
Road trailer-rigid bar		0			-		0	-	-
Sockets kit		0			-		0	0	0
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)	0	0	0	0	-	0	0	-	-
Ligthing tower	-	-	-	-	-	-	-	-	-
ENGINE									
Engine electronic governor	-	0	0	0	•	•	•	•	•
Coolant pre-heating system (for automatic start)	0	0	0	0	0	0	0	0	0
Residential silencer (standard on soundproof versions)	•	0	0	0	0	0	0	0	0
FUEL SYSTEM									
Automatic fuel transfer pump	0	0	0	0	0	0	0	0	0
ALTERNATOR (STAMFORD)									
Alternator parallel kit (with mains)	-	0	0	0	0	0	0	0	0
Alternator parallel kit (with other alternator)	-	0	0	0	0	0	0	0	0
PMG alternator variant	-	0	0	0	0	0	0	0	0
OTHER OPTIONS									
Manual Control Panel with analogue instrumentation	•	0	0	0	-	0	-	-	-
Load Transfer Switch Panel (LTS) for ACP versions	0	0	0	0	0	0	0	0	0
Connection kit for communication via Modem / GSM (only for automatic versions)	0	0	0	0	0	0	0	0	0

- •: Standard
- o: Optional
- Optional (only soundproof versions) ): 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.

#### GPW (MITSUBISHI)

from 1300 to 2030 kVA Mitsubishi engines

#### GPW (MITU)

from 650 to 2600 kVA MTU engines

#### GPW (PERKINS)

from 655 to 1850 kVA Perkins engines



# version associated product characteristics can vary according to the markets 01-2006 prior notice. Models, eserves the right to introduce changes to models and features without

he

## WWW.PRAMAC.COM





#### PRAMAC LIFTER S.p.A.

Località II Piano, 53031 Casole d'Elsa (SI) - Italy info@pramac.com service.it@pramac.com Tel.: +39 0577 9651 Fax: +39 0577 949076

#### PRAMAC LIFTER GmbH

Salierstr. 48, 70736 Fellbach, Stuttgart - Germany deutschland@pramac.com service.de@pramac.com Fax: +49 711 517 42999

#### PRAMAC IBERICA S.A

Parque Empresarial Polaris C/. Mario Campinoti, 1 Autovía Murcia-San Javier Km 18 30591 Balsicas, Murcia - Spain spain@pramac.com service.es@pramac.com Tel.: +34 968 334 900 Fax: +34 968 579 321

#### PRAMAC UK Ltd.

Crown Business Park, Dukestown Tredegar, NP22 4EF - United Kingdom uk@pramac.com service.uk@pramac.com Tel.: +44 1495 713 300 Fax: +44 1495 718 766

#### PRAMAC FRANCE S.A.S.

Place Léonard de Vinci 42190 St. Nizier sous Charlieu - France france@pramac.com service.fr@pramac.com Tel.: +33 (0) 477 692 020 Fax: +33 (0) 477 601 778

#### S.C. PRAMAC Group SRL

B-ul Vasile Milea numero 2 I, piano 2, Bucarest Romania romania@pramac.com service.ro@pramac.com

#### PRAMAC GROUP SCANDINAVIA ApS.

Vesterballevej 17 - 7000 Fredericia - Denmark scandinavia@pramac.com service.dk@pramac.com Tel.: +45 7027 5050 Fax: +45 7027 5060

PRAMAC LIFTER AFRIQUE Tr. S.a.r.l. 24 Rue Félix Eboué - B.P. 8959 Dakar Yoff - Senegal afrique@pramac.com service.af@pramac.com
Tel.: +221 849 6232 Fax: +221 822 5800

#### PRAMAC INDUSTRIES Inc.

 Regional Head Office and USA Sales Office 1100 Cobb Parkway North C Marietta, Georgia 30062 - USA usa@pramac.com service@pramac.com Tel.: +1 770 218 5430 Fax: +1 770 218 2810

#### • International Sales Office

10100 NW 116 Way, Suite 10 Medley, Florida 33178 - USA usa@pramac.com service@pramac.com
Tel.: +1 305 888 9911 Fax: +1 305 888 3711

#### PRAMAC CARIBE C. por A.

Avda. 27 de Febrero, Esq. Caonabo, 664 Los Restauradores 10137 Santo Domingo - Dominican Republic s.domingo@pramac.com service.rd@pramac.com Tel · +1 809 531 0067 Fax: +1 809 531 0273

#### PRAMAC de Puerto Rico Inc.

Carretera Estatal #2 Km, 15.8 Barrio Hato Tejas, Bayamón, 00961 Puerto Rico info@pramacpr.com parts@pramacpr.com Tel.: +1 787 273 3178 Fax: +1 787 273 3179

#### PRAMAC BRASIL EQUIPAMENTOS Ltda.

Av. Victor Andrews, 3210 Bairro Éden - Cep 18086-390 Sorocaba, Sao Paulo - Brasi

brasil@pramac.com service.br@pramac.com Tel: +55 15 3225 4415 Fax: +55 15 3225 3852

#### PRAMAC (CHINA) LIMITED

Hong Kong Regional Head Office Unit 721, 7th Floor Nan Fung Commercial Centre 19 Lam Lok Street, Kowloon Bay - Hong Kong asia@pramac.com service.hk@pramac.com Tel · +852 211 638 89 Fax: +852 211 998 22

#### PRAMAC SIENA (SHANGHAI)

TRADING CO. LTD.

Unit K, 23/F, Cross Region Plaza No 899 Lingling Road, Shanghai 200030 - China asia@pramac.com service.hk@pramac.com

Tel.: +86 21 5489 3311 Fax: +86 21 5489 3825

#### PRAMAC (ASIA) PTE LTD.

48 Gul Crescent 629542 Singapore asia@pramac.com service.sg@pramac.com Tel.: +65 6558 7888 Fax: +65 6558 7878

PRAMAC Sp z.o.o.
UI. Miedzyleska 2/4, 50-514 Wroclaw-Poland polska@pramac.com service.pl@pramac.com Tel.: +48 71 332 17-00 Fax: +48 71 332 17-09

#### Service and Parts

PRAMAC Service and Parts is the Division responsible for fulfilling Parts and Service requests from our customers. Our intention is to provide a comprehensive and highly professional service, to satisfy any requirements, backed up with a great range of components.

All the gensets are completly tested before dispatch.

For information about the nearest Pramac Service and Parts Centre-• Web Site: www.pramacparts.com

#### Certifications

Production sites according to ISO directions



PRAMAC Lifter S.p.A. Località il Piano 53031 Casole d'Elsa (SI) - Italy





#### PRAMAC IBERICA S.A.

Parque Empresarial Polaris C/, Mario Campinoti,1 Autovia Murcia-San Javier Km 18, 30591 Balscas Murcia - Spain

#### Authorised dealer

