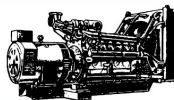


PROUDLY 100% AUSTRALIAN OWNED

**MACFARLANE  
GENERATORS**



ESTABLISHED 1949

**VICTORIA (HEAD OFFICE)** REC: 691

136 Fairbank Road, Clayton South, VIC 3169 Ph: 03 9544 4222 Fax: 03 9543 7138

**NEW SOUTH WALES BRANCH** REC: 261624C

1 St. James Place, Seven Hills, NSW 2147 Ph: 02 9899 6699 Fax: 02 9899 8048

**QUEENSLAND BRANCH** REC: 72635

31 South Pine Road, Brendale, QLD 4500 Ph: 07 3205 6333 Fax: 07 3205 6344

PO Box 5176, Clayton, VIC 3168 [www.macfarlanegenerators.com.au](http://www.macfarlanegenerators.com.au) info@macgen.com

Macfarlane Generators PTY. LTD. ACN 006 849 074 ABN 74 006 849 074

## GCW22P (ALT. LSM)



### Main Features

Frequency	Hz	50
Voltage	V	230
Power factor	cos $\phi$	1
Phase and connection		1

### Power Rating

Standby power LTP	kVA	18.00
Standby power LTP	kW	18.00
Prime power PRP	kVA	16.00
Prime power PRP	kW	16.00

### Ratings definition (According to standard ISO8528 1:2005)

#### PRP - Prime Power:

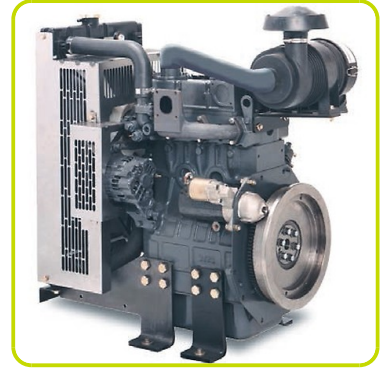
It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

#### LTP - Limited-Time running Power:

It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 h of operation per year (whose no more than 300 for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

## Engine specifications

Engine manufacturer	Perkins	
Model	404D-22G	
[50Hz] Exhaust emission level	Stage IIIA	
Engine cooling system	Water	
Nr. of cylinder and disposition	4 in line	
Displacement	cm <sup>3</sup>	2216
Aspiration	Natural	
Speed governor	Mechanical	
Prime gross power PRP	kW	18.7
Maximum gross power LTP	kW	20.6
Oil capacity	l	10.6
Coolant capacity	l	7
Fuel	Diesel	
Specific fuel consumption @ 75% PRP	g/kWh	238
Specific fuel consumption @ PRP	g/kWh	237
Starting system	Electric	
Starting engine capability	kW	2
Electric circuit	V	12



## Engine Equipment

### Standards

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1

### Fuel system

Rotary type pump

### Lube oil system

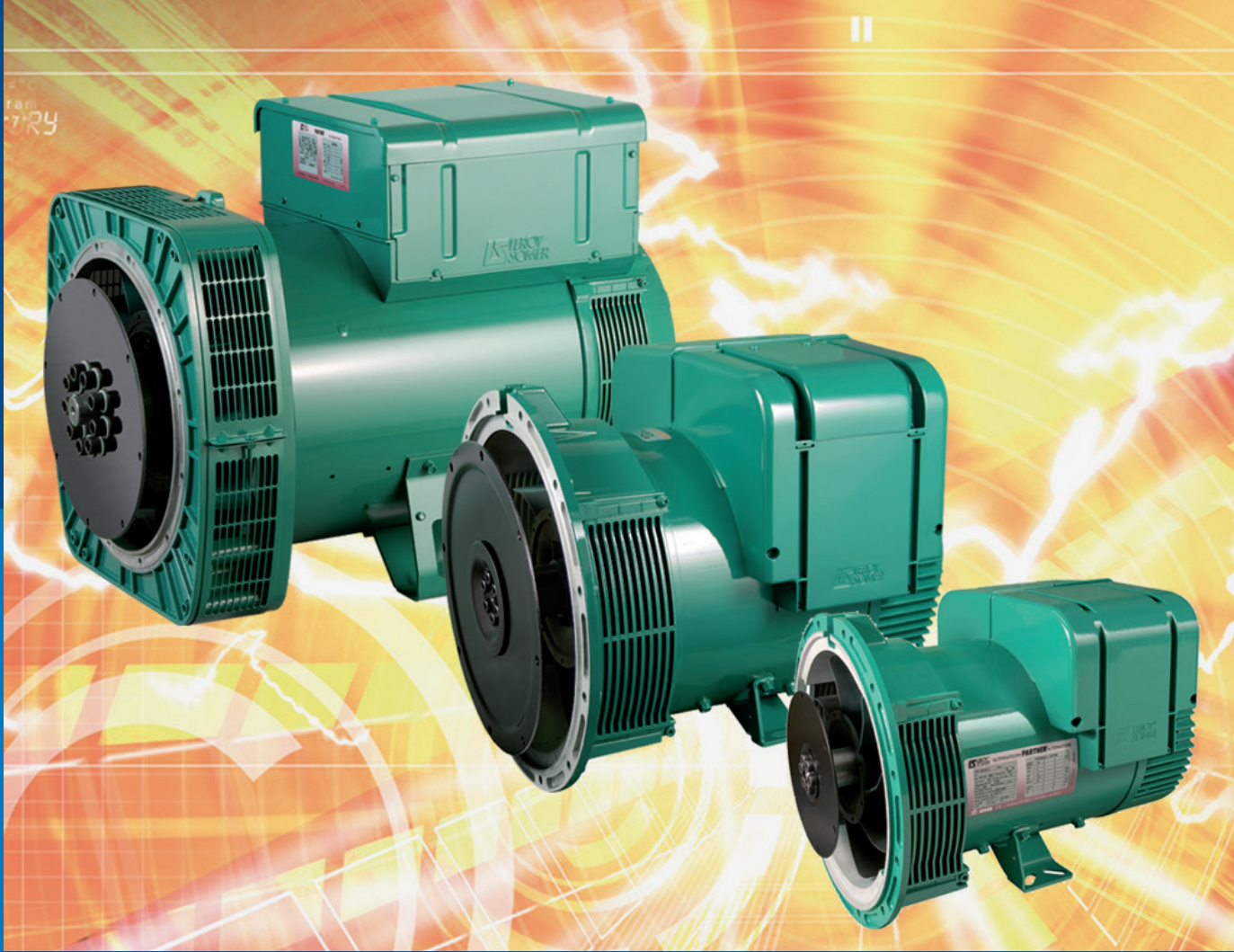
Wet steel sump with filler and dipstick

### Filter

- Fuel filter
- Air filter
- Oil filter

### Cooling system

- Mounted radiator
- Thermostatically-controlled system with belt driven coolant pump and pusher fan



## Low Voltage Alternators - 4 pole

10 to 3300 kVA - 50 Hz / 12.5 to 3900 kVA - 60 Hz  
General features and ratings



**Leroy-Somer™**

POWER ANYWHERE, ANYTIME      1300 MAC GEN (1300 622 436)  
SALES, HIRE, SERVICE, SPARES, INSTALLATION, NEW AND USED GENERATORS

  
**EMERSON™**

## 1500 R.P.M. - 1 Phase - P.F. 1



RATINGS 50 Hz	
 SE series (4 wires)	 PA parallel (4 wires)
230 V	115 V

### 8.12 - Dedicated winding M

					kW / kVA : 115/230 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE		SHUNT		wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	-	JM/4	-	4	10.5	9.5	11	11.4
LSA 40 VS2	-	JM/4	-	4	12	11	12.7	13.2
LSA 40 S3	-	JM/4	-	4	13.2	12	14	14.5
LSA 40 S4	-	JM/4	-	4	14.5	13.2	15.4	16
LSA 40 M5	-	JM/4	-	4	16	14.6	17	17.6
LSA 42.3 VS1	-	JM/4	-	4	18.2	16.6	19.3	20
LSA 42.3 VS2	-	JM/4	-	4	20.3	18.5	21.5	22.3
LSA 42.3 VS3	-	JM/4	-	4	22.4	20.4	23.7	24.6
LSA 42.3 S4	-	JM/4	-	4	25	22.8	26.5	27.5
LSA 42.3 S5	-	JM/4	-	4	28	25.5	29.7	30.8
LSA 42.3 M7	-	JM/4	-	4	31.5	28.7	33.4	34.7
LSA 42.3 M8	-	JM/4	-	4	35	31.9	37.1	38.5
LSA 42.3 L9	-	JM/4	-	4	42	38.2	44.5	46.2
LSA 44.3 S3	-	JM/4	-	4	57	51	60	63
LSA 44.3 S5	-	JM/4	-	4	69	62	73	76
LSA 44.3 M8	-	JM/4	-	4	82	74	87	90



## Genset equipment

### BASE FRAME MADE OF WELDER STEEL PROFILE, COMPLETE WITH:

- Anti-vibration mountings properly sized
- Visual fuel level indicator
- Integrated support legs.

### PLASTIC FUEL TANK, COMPLETE WITH:

- Filler neck
- Air breather (ventilation pipe)
- External fuel refilling

### OIL DRAININ PIPE WITH CAP:

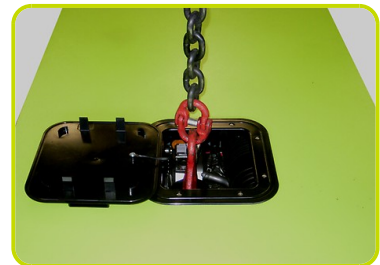
- Oil draining facilities

### CANOPY:

- Single piece hinged soundproof canopy equipped with pneumatic arms and handles to lift up the canopy allowing easy access to the genset for maintenance purposes.
- Simple handling operations with central lifting eye

### SOUNDPROOF:

- Noise attenuation thanks to soundproofing material (polyurethane foam) and efficient residential silencer placed inside the canopy.



### Dimensional data

Length	(L) mm	1645
Width	(W) mm	870
Height	(H) mm	1072
Dry weight	Kg	586
Fuel tank capacity	l	51

### Installation data

Exhaust gas flow @ PRP	m <sup>3</sup> /min	3.64
Exhaust gas temperature @ LTP	°C	445

### Control panel availability

AUTOMATIC CONTROL PANEL	ACP
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## ACP - Automatic control panel

Automatic control panel mounted on the genset, complete with digital control unit AC03 for monitoring, control and protection of the generating set.

### INSTRUMENTATION DIGITAL (AC-03)

- Mains voltage.
- Generating set voltage (3 phases).
- Generating set frequency
- Generator set current (1 phase).
- Battery voltage
- Hours-counter.

### COMMANDS AND OTHERS

- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection
- Emergency stop button.
- Remote starting availability.
- DC system disconnection switch
- Automatic battery charger
- Settable PASSWORD for protection level

### PROTECTIONS WITH ALARM

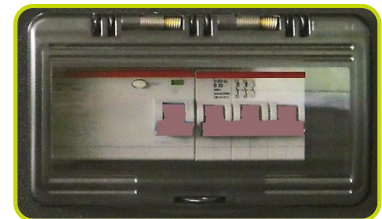
- Engine protections: low oil pressure, high engine temperature
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure

### PROTECTIONS WITH SHUTDOWN

- Engine protections: low oil pressure, high engine temperature
- Genset protection: under/over voltage, overload, under/over battery voltage
- Circuit breaker protection: III poles
- Differential protection

### OTHERS

- Cover protection Power switch



### OUT PUT PANEL ACP

Plinth row for connection from ACP to LTS panel.

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