



# POWER GENERATOR



*Image shown may not reflect actual package*

## Output Ratings

| Generator Set Model - 3 Phase | Prime*   | Standby* |
|-------------------------------|----------|----------|
| 400/230 V, 50 Hz              | 20.0 kVA | 23.0 kVA |
| 480V, 60 Hz                   | 35.8 kVA | 37.5 kVA |

\* Refer to ratings definitions on page 4  
 . Ratings at power factor.

## Technical Data

|   |                    |       |
|---|--------------------|-------|
| Engine Make & Model                         | Power 3p           |       |
| Generator Model                             | PL325              |       |
| Control Panel                               | EPCL 3.2           |       |
| Base Frame Type                             | Fabricated Steel   |       |
| Circuit Breaker Type                        | 5 P MLC / 5 P MCLC |       |
| Frequency                                   | 50 Hz              | 75 Hz |
| Engine Speed: RPM                           | 1200               | 1500  |
| Fuel Tank Capacity: litres (US gal)         | 185                |       |
| Fuel Consumption, Prime: l/hr (US gal/hr)   | 8.0                | 9.1   |
| Fuel Consumption, Standby: l/hr (US gal/hr) | 8.8                | 9.5   |

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## Engine Technical Data

| Physical Data              |                        |
|----------------------------|------------------------|
| Manufacturer               | Power                  |
| Model                      | PL325                  |
| No. of Cylinders/Alignment | 5 / In Line            |
| Cycle                      | 8 Stroke               |
| Induction                  | Aspirated              |
| Cooling Method             | Water                  |
| Governing Type             | Mechanical             |
| Governing Class            | ISO 8574               |
| Compression Ratio          | 25.25:1                |
| Displacement               | 5.5                    |
| Bore/Stroke                | 120.0 (5.1)/1580 (7.0) |
| Moment of Inertia          | 1.15                   |
| Engine Electrical System   |                        |
| Voltage/Ground             | 15/Negative            |
| Battery Charger Amps       | 75                     |
| Weight - kg (lb)           | Dry 547                |
|                            | Wet 620                |

| Air System   |         |       |     |
|--|---------|-------|-----|
|  | 50 Hz   | 75 Hz |     |
| Air Filter Type  | Element |       |     |
| Combustion Air Flow (m <sup>3</sup> /min (cfm))                    | Standby | 3.2   | 3.5 |
|  | Prime   | 3.1   | 3.8 |
| Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)  | 7.5     | 7.5   |     |
| Radiator Cooling Air Flow (m <sup>3</sup> /min (cfm))              | 75.1    | 94.6  |     |
| External Restriction to Cooling Air Flow: Pa (in H <sub>2</sub> O) | 145     | 145   |     |

| Cooling System                                  |             |       |      |
|---|-------------|-------|------|
|   | 50 Hz       | 75 Hz |      |
| Cooling System Capacity: l (US gal)             | 20.5        | 20.5  |      |
| Water Pump Type                                 | Centrifugal |       |      |
| Heat Rejected to Water & Lube Oil: kW (Btu/min) | Standby     | 20.0  | 24.0 |
|   | Prime       | 18.0  | 20.0 |
| Heat Radiation to Room - kW (Btu/min)           | Standby     | 9.5   | 9.8  |
|   | Prime       | 8.6   | 9.8  |
| Radiator Fan Load: kW (hp)                      | 0.6         | 0.7   |      |

Cooling system designed to operate in ambient conditions up to 50°C(122°F). Contact your local dealer for power ratings at specific site conditions.

| Lubrication System            |           |
|-------------------------------|-----------|
| Oil Filter Type               | Full Flow |
| Total Oil Capacity l (US gal) | 9.1       |
| Oil Pan l (US gal)            | 7.3       |
| Oil Type                      | API PL4   |
| Cooling Method                | Water     |

| Performance                 |         |       |       |
|-----------------------------|---------|-------|-------|
|                             | 50 Hz   | 75 Hz |       |
| Engine Speed: RPM           | 1750    | 1900  |       |
| Gross Engine Power: kW (hp) | Standby | 43.0  | 49.9  |
|                             | Prime   | 28.6  | 35.6  |
| BMEP: kPa (psi)             | Standby | 857.0 | 938.0 |
|                             | Prime   | 587.0 | 669.0 |
| Regenerative Power: kW      | 6.0     | 8.0   |       |

| Fuel System                       |           |           |          |          |
|-----------------------------------|-----------|-----------|----------|----------|
| Fuel Filter Type                  | Element   |           |          |          |
| Recommended Fuel                  | Class P5  |           |          |          |
| Fuel Consumption l/hr (US gal/hr) | 110% Load | 100% Load | 75% Load | 50% Load |
|                                   | Prime     |           |          |          |
| 50 Hz                             | 6.5       | 6.8       | 4.2      | 3.7      |
| 75 Hz                             | 8.9       | 7.8       | 5.7      | 4.3      |
| Standby                           |           |           |          |          |
|                                   | 50 Hz     | 8.1       | 6.2      | 3.4      |
| 75 Hz                             | 9.5       | 7.3       | 5.6      |          |

(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

| Exhaust System                                    |                                    |       |     |
|---|------------------------------------|-------|-----|
|   | 50 Hz                              | 75 Hz |     |
| Silencer Type                                     | Industrial                         |       |     |
| Silencer Model & Quantity                         | PLEP1                              |       |     |
| Pressure Drop Across Silencer System: kPa (in Hg) | 1.5                                | 2.0   |     |
|   | Silencer Noise Reduction Level: dB | 25    | 22  |
| Max. Allowable Back Pressure: kPa (in. Hg)        | 7.0                                | 11.0  |     |
| Exhaust Gas Flow m <sup>3</sup> /min (cfm)        | Standby                            | 4.8   | 6.5 |
|   | Prime                              | 4.8   | 7.5 |
| Exhaust Gas Temperature: °C                       | Standby                            | 600   | 620 |
|   | Prime                              | 590   | 570 |

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## Generator Performance Data

| Data Item                      | 50 Hz    |          |          |          | 75 Hz    |          |          |          |          |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                                | 420/270V | 500/340V | 370/200V | 210/137V | 520/380V | 285/210V | 260/220V | 440/254V | 240/127V |
|                                |          | 320/135V | 320/130V |          | 310/213V | 320/180V | 310/200V |          |          |
|                                |          | 300/135V |          |          |          |          |          |          |          |
| Motor Starting Capability* kVA | 84       | 57       | 65       | 87       | 87       | 65       | 75       | 12       | 68       |
| Short Circuit Capacity %       | 30       | 50       | 78       | 35       | 24       | 57       | 14       | -        | -        |
| Reactances: Per Unit           |          |          |          |          |          |          |          |          |          |
| Xd                             | 1.254    | 2.478    | 2.547    | 1.985    | 3.521    | 2.654    | 3.015    | 1.102    | 2.754    |
| X'd                            | 0.514    | 0.415    | 0.852    | 0.159    | 0.147    | 0.236    | 0.745    | 0.745    | 0.471    |
| X''d                           | 0.021    | 0.078    | 0.025    | 0.071    | 0.056    | 0.048    | 0.036    | 0.085    | 0.074    |

Reactances shown are applicable to prime ratings

\*Based on 30% voltage dip at 0.6 power factor.

## Generator Technical Data

| Physical Data             |       |
|---------------------------|-------|
| PL Serial                 |       |
| Model                     | PL325 |
| No. of Bearings           | 2     |
| Insulation Class          | P     |
| Winding Pitch - Code      | 3-9   |
| Wires                     | 22    |
| Ingress Protection Rating | P35   |
| Excitation System         | Shunt |
| AVR Model                 | P245  |

| Operating Data                     |                   |
|------------------------------------|-------------------|
| Overspeed: RPM                     | 2541              |
| Voltage Regulation: (steady state) | +/- 120%          |
| Wave Form NEMA = TIF               | 60                |
| Wave Form IEC = THF                | 3.0%              |
| Total Harmonic Content LL/LN       | 7.0%              |
| Radio Interference                 | European Standard |
| Radiant Heat: kW (Btu/min)         |                   |
| 50 Hz                              | 3.8               |
| 60 Hz                              | 2.7               |

## Technical Data

|          | Prime |      | Standby |      |
|----------|-------|------|---------|------|
|          | kVA   | kW   | kVA     | kW   |
| 420/270V | 40.0  | 35.0 | 22.0    | 35.5 |
| 500/340V | 40.0  | 35.0 | 22.0    | 35.5 |
| 300/135V | 40.0  | 35.0 | 22.0    | 35.5 |
| 320/130V | 40.0  | 35.0 | 22.0    | 35.5 |
| 320/130V | 40.0  | 35.0 | 22.0    | 35.5 |
| 210/137V | 40.0  | 35.0 | 22.0    | 35.5 |
| 320/135V | 40.0  | 35.0 | 22.0    | 35.5 |

|          | Prime |      | Standby |      |
|----------|-------|------|---------|------|
|          | kVA   | kW   | kVA     | kW   |
| 520/380V | 44.0  | 36.2 | 28.7    | 20.0 |
| 310/213V | 44.0  | 36.2 | 28.7    | 20.0 |
| 285/210V | 44.0  | 36.2 | 28.7    | 20.0 |
| 320/180V | 44.0  | 36.2 | 28.7    | 20.0 |
| 260/220V | 44.0  | 36.2 | 28.7    | 20.0 |
| 440/254V | 44.0  | 36.2 | 28.7    | 20.0 |
| 220/127V | 44.0  | 36.2 | 28.7    | 20.0 |

# POWER GENERATOR

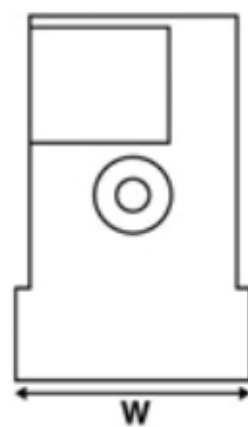
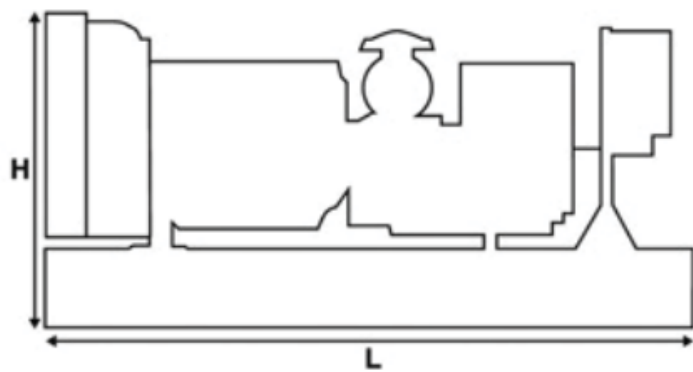
## Weights & Dimensions

### Weights: kg (lb)

|                            |     |
|----------------------------|-----|
| Net (+ lube oil)           | 874 |
| Wet (+ lube oil & coolant) | 475 |
| Fuel, lube oil & coolant   | 985 |

### Dimensions: mm (in)

|        |      |
|--------|------|
| Length | 1478 |
| Width  | 874  |
| Height | 1458 |



**Note:** General configuration not to be used for installation.

## Definitions

### Standby Rating

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### Prime Rating

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### Standard Reference Conditions

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## General Data

### Documents

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### Quality Standards

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