



Overview

CASE STUDY:

Baudouin | New Way Power | South Africa

PRODUCT:

8 x [Baudouin 4M10G2D0/S PowerKit Engine](#)



DISPLACEMENT:

4M10 = 4.1 litres 4 cylinder diesel

TOTAL POWER OUTPUT:

8 x 65 kVA = 520 kVA

DUTY:

PRP Prime Rated Power

APPLICATION:

Electric frost fan power for agricultural frost mitigation

PARTNERS:

OEM: New Way Power

Customer: Electric frost fans supplier

End user: Citrus and blueberry farm

Frost Protection for Citrus and Blueberry Orchards in Kakamas

A citrus and blueberry farm in Kakamas (Northern Cape, South Africa) faced rising winter frost risk that could wipe out a season's yield in a single cold snap. To protect the crop, the farm deployed a network of eight electric frost fans. It ensured on-site power resilience with generator sets built by New Way Power around Baudouin 4M10G2D0-S PowerKit engines. The gensets are configured for Prime Rated Power (PRP) at 65 kVA (52 kWe) at 50 Hz, an appropriate classification for seasonal, recurring use during frost events. This setup delivers reliable prime power throughout the frost season, supporting electric fans that, in standard industry configurations, can protect 7 to 9 hectares per unit (30 kW class), significantly reducing frost damage risk and stabilising farm output.

Kakamas' clear, still winter nights make radiation frosts both common and severe; when temperatures slide near or below 0 °C, cell damage to blossoms and young fruit can occur within hours. Electric frost fans mitigate this by mixing warmer inversion-layer air into the crop zone, raising canopy temperature just enough to keep ice from forming. Because these events are seasonal but recurring across many nights, the power profile is best served by prime-rated gensets that are expected to run regularly and for extended durations throughout the frost season. New Way Power, the leading South African OEM for bespoke prime and standby solutions, supplied and assembled the gensets locally, integrating Baudouin 4M10 engines that are proven in agriculture and other demanding environments.

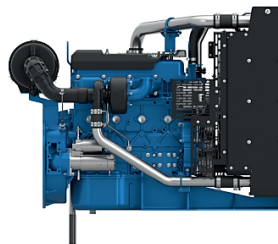
At the heart of each generator set, the Baudouin 4M10G2D0-S PowerKit engine provides the right mix of responsiveness and efficiency for frost-night duty. The typical genset prime-rated power output for this engine is 65 kVA (52 kW) at 1500 rpm, allowing ample margin to start and run 30 kW electric fan motors while accommodating controls and auxiliaries. The model's straightforward design, mechanical fuel system with electronic governing, supports dependable cold starts and stable frequency under variable load, while its compact footprint simplifies packaging for remote orchard deployment.

Baudouin's PowerKit range is the differentiator behind the project's reliability and economics. The Baudouin engines portfolio spans 18 kVA to 4 MVA+, giving OEMs like New Way Power a consistent platform from small agricultural sets to large industrial installations. Engines are engineered for easy servicing, extended maintenance intervals, and low specific fuel consumption, reducing lifetime cost and downtime which is critical in remote, time-sensitive operations like frost protection. Strong global support and competitive prime power warranties further de-risk ownership, making Baudouin a pragmatic choice for growers who need assured performance when it matters most.



MOTEURS
Baudouin

4M10
ESP/PRP Diesel Engine



Bore & Stroke (mm)	105 x 118
Displacement (L)	4.1
N° of Cylinders	4
Cylinders Arrangement	In line
Fuel System	Mechanical
Governor (Gov.)	Electronic
Aspiration (Asp.)	Turbocharged
	Turbocharged & air-to-air cooled

Customer benefits

Warranty terms – 2 yrs unlimited PRP, 4 yrs/800h ESP
50°C Cooling package standard with low derating
Low fuel consumption across the range
Extended mean time between overhauls (MTBO)

BUILT TO
POWER

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POWERKIT M SERIES
THE MOST EXTENSIVE RANGE ON THE MARKET