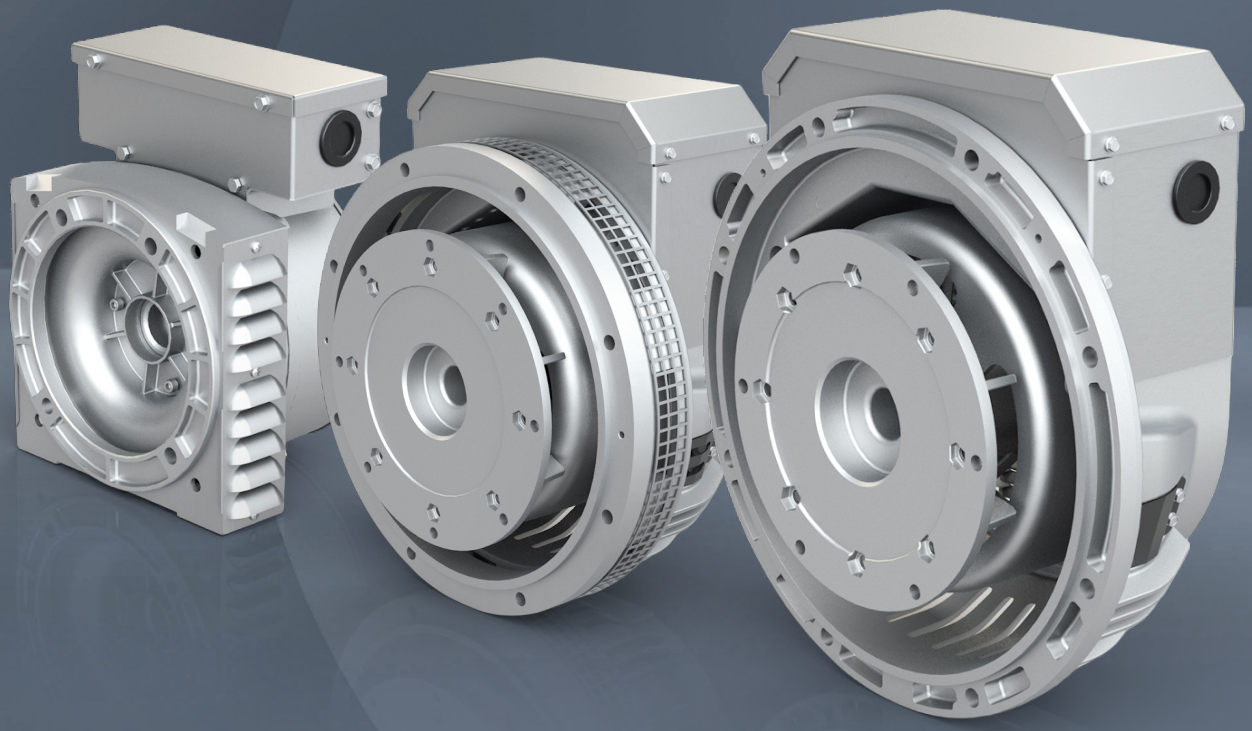
mecc alte

COMPACT, EFFICIENT POWER FOR VARIABLE & FIXED-SPEED SYSTEMS

PERMANENT MAGNET GENERATORS (PMG)



TOGETHER WE POWER THE WORLD

Mecc Alte has been a driving force in keeping industry powered. As an alternator supplier, we have proven expertise and experience in research, design, low-cost manufacturing and development capabilities. With manufacturing taking place in Italy, the UK, India and China, we offer fast and reliable alternator solutions service to our customers all over the world.

CONTENTS

Why choose Mecc Alte's PMG? 04

The power of PMG design 06

Two power system 08

Flexible power conversion solutions 10

Applications 14

Product range 16

Lighting tower product range 19

Variable-speed product kits 22

WHY CHOOSE MECC ALTE'S PMG?

PMG (Permanent Magnet Generator) technology represents a paradigm shift in power generation, delivering superior performance across component and system levels.

COMPONENT LEVEL

COMPACT AND LIGHTWEIGHT

High-frequency operation and use of powerful rare-earth magnets allow for a physically smaller and lighter generator.

PREMIUM EFFICIENCY

PMGs achieve around 91%+ efficiency by reducing parasitic losses (e.g., no excitation losses, lower friction) compared to traditional AC generators.

HIGH RELIABILITY AND LIMITED MAINTENANCE

PMGs are simpler because they don't require exciter, brushes, or voltage regulators to generate the magnetic field, reducing potential points of failure.

SYSTEM LEVEL

FLEXIBLE POWER WHERE NEEDED

PMG technology enables the generator to match power output to demand across variable speeds, optimising system efficiency and allowing compact engine configurations with optimal power utilisation.

REDUCED FUEL CONSUMPTION

Lower parasitic losses and the use on systems where engine speed is varying, result in fuel savings, typically around 15–20% for constant loads and up to 70% in variable load applications.

SMOOTHER & QUIETER OPERATION

Running the engine at optimised lower speeds reduces overall gen set noise and mechanical stress, improving system durability and comfort.

IMPROVED TRANSIENT PERFORMANCES

With variable speed, lower susceptibility to transient over-voltage and under-voltage, ensuring stable operation under dynamic load conditions.

UNRIVALLED CUSTOMER VALUE

- **LOWER OPERATIONAL COSTS THROUGH FUEL SAVINGS**
- **REDUCED MAINTENANCE, EXPENSES, AND DOWNTIME**
- **COMPACT INSTALLATION WITH SPACE SAVINGS**
- **ENHANCED RELIABILITY IN MISSION-CRITICAL APPLICATIONS**
- **ENVIRONMENTAL BENEFITS THROUGH REDUCED EMISSIONS**
- **QUIETER, MORE COMFORTABLE OPERATION**

THE POWER OF PMG DESIGN

The PMG portfolio is a compact range of multipole synchronous machines with permanent magnet external rotor and internal stator, available across three platforms (PM3G, PM5G and PM7G).

Several standard models are bearing-less. All models feature enhanced GREY stator winding protection as standard, with TOTAL+ available as an optional upgrade.

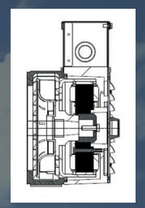
SUPERIOR EFFICIENCY (UP TO 91% AT FULL LOAD)

Thanks to rear-earth magnet rotor design.

Rare Earth Magnet

SUPER-COMPACT & EXTREMELY LIGHT

Small stack, few inner components and bearing-less solution availble.



Reduced weight

Reduced length

HIGH RELIABILITY (EXTREMELY REDUCED WEARING)

Simple design with limited parts.

Optional GREY and TOTAL+ insulation treatmenton active part for harsh environments.

PM5G

ELEVATE ENGINE COUPLING STABILITY AND SMOOTH OPERATION

Enabled by the PMG's higher inertia moment, achieved through an external rotor design operating at high speed.

External Rotor

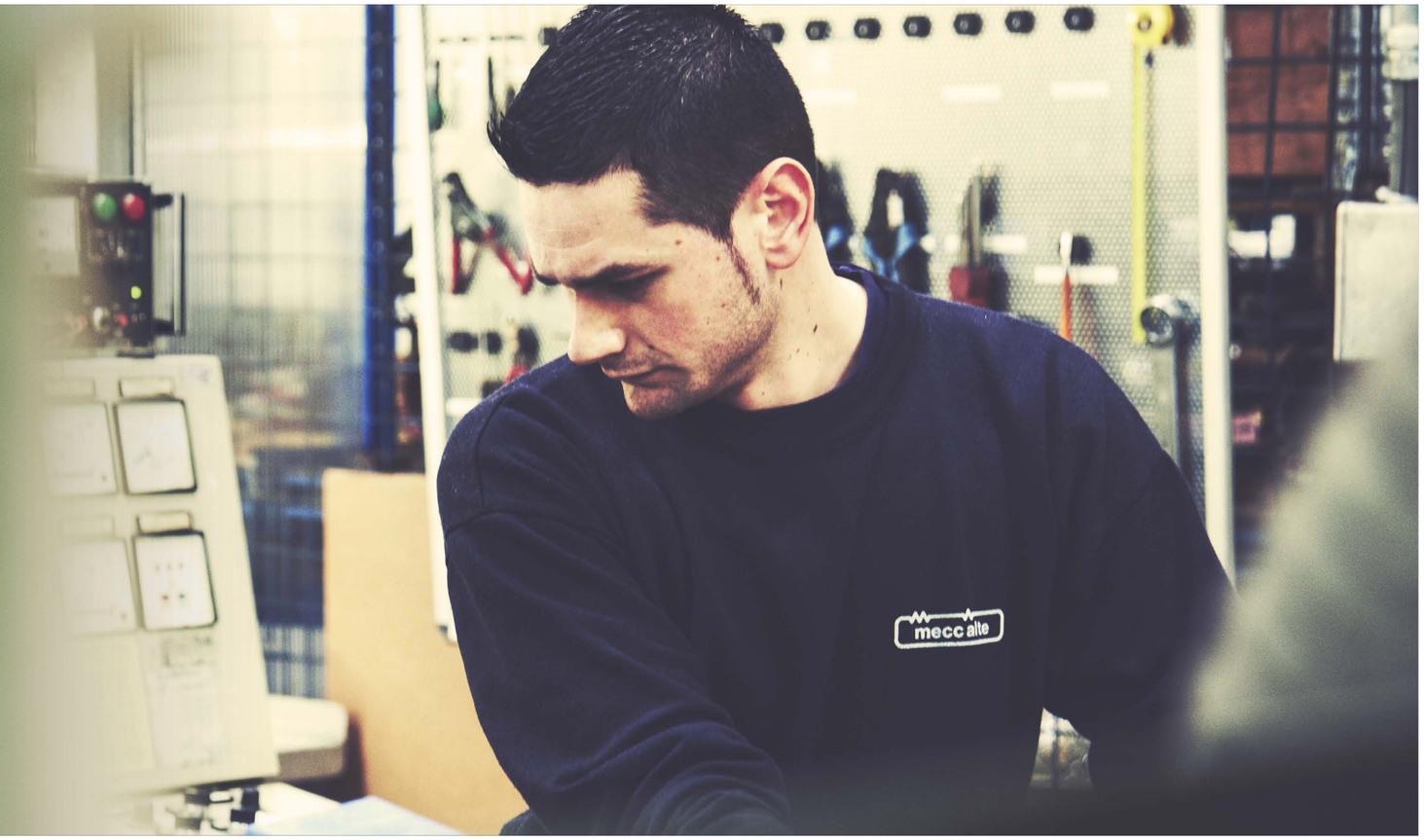
IN DC APPLICATION, REDUCED RIPPLE

Thanks to high frequency output resulting by Multi-pole technology (PM3G: 16 poles and PM5G: 20 poles).

Multi-pole Winding Stator

TWO POWER SYSTEM

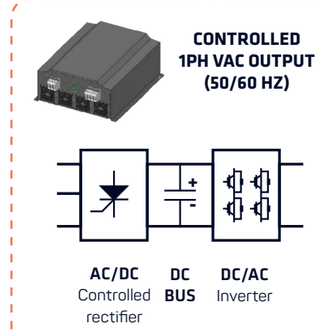
Mecc Alte's PMG technology enables two alternative power system architectures to suit different application needs. The generator can be configured for controlled AC output through active conversion, or for direct DC output using integrated rectification and filtering. Both solutions are built on high-frequency multipole operation, offering maximum flexibility for system integration.



AC OUTPUT (VARIABLE SPEED)

PMG - AC

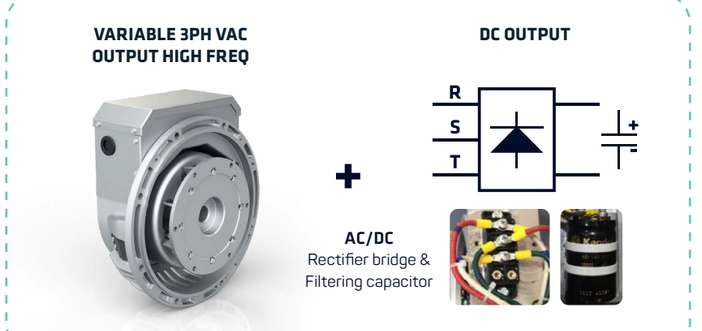
2 -STAGE AC/AC CONVERTER



- **HIGH-FREQUENCY MULTI-POLE PMG DELIVERING AC OUTPUT**
- **ACTIVE 2-STAGE AC/AC CONVERSION FOR CONTROLLED SINGLE-PHASE OUTPUT**

DC OUTPUT (FIXED OR VARIABLE SPEED)

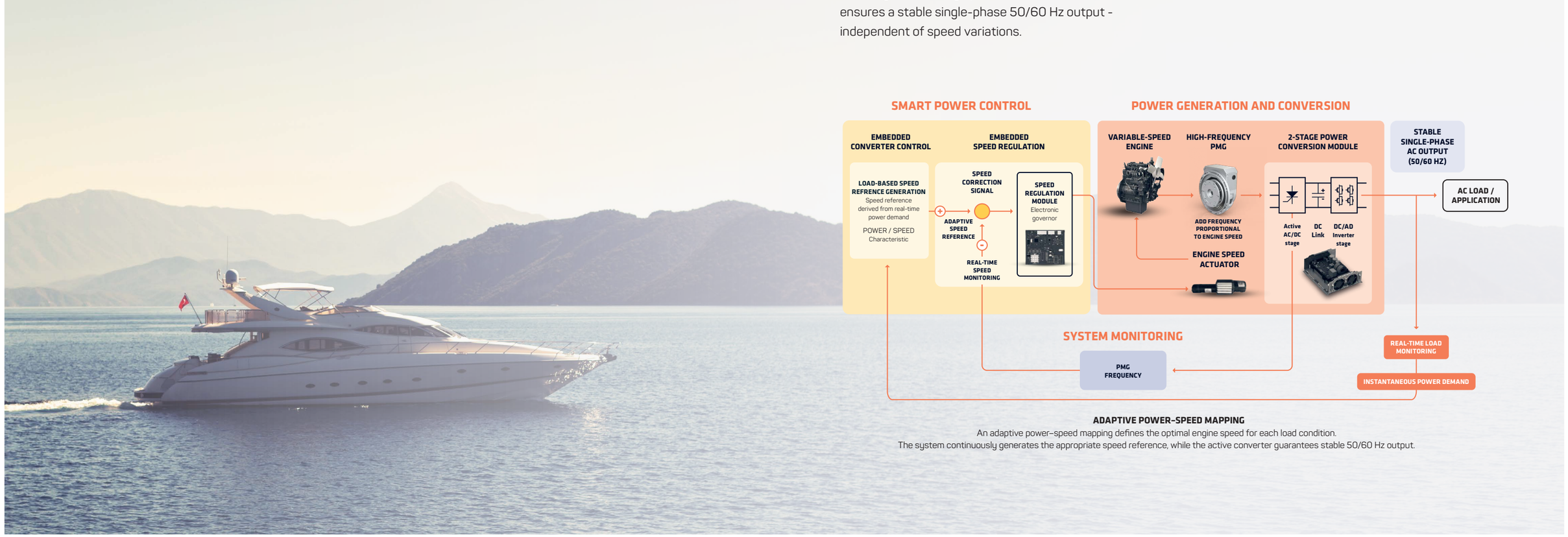
PMG - DC



- **HIGH-FREQUENCY MULTI-POLE PMG DELIVERING DC OUTPUT**
- **INTEGRATED AC/DC CONVERSION**
- **INTEGRATED DC FILTERING FOR REDUCED RIPPLE**

FLEXIBLE POWER CONVERSION SOLUTIONS

A modular and scalable power platform enabling multiple operating modes to meet different application requirements - from variable-speed AC generation to advanced DC charging and fixed-speed DC solutions.



VARIABLE-SPEED AC POWER GENERATION ARCHITECTURE

SMART POWER ON DEMAND

A variable-speed genset continuously adapts engine speed to match real-time power demand - delivering exactly the required output, no more, no less. This results in reduced fuel consumption, quieter operation, and extended engine life.

At the core of the system, the Mecc Alte Permanent Magnet Generator (PMG) operates at a frequency proportional to engine speed, while the integrated 2-stage power conversion module ensures a stable single-phase 50/60 Hz output - independent of speed variations.

The Smart Control Architecture continuously monitors load conditions and generates an adaptive speed reference based on real-time power demand. An electronic speed regulation module then adjusts the engine through the speed actuator, ensuring smooth, efficient and reliable power delivery under all load conditions.

ADAPTIVE POWER–SPEED MAPPING

An adaptive power–speed mapping defines the optimal engine speed for each load condition.
The system continuously generates the appropriate speed reference, while the active converter guarantees stable 50/60 Hz output.

VARIABLE-SPEED DC

BATTERY CHARGING SYSTEM

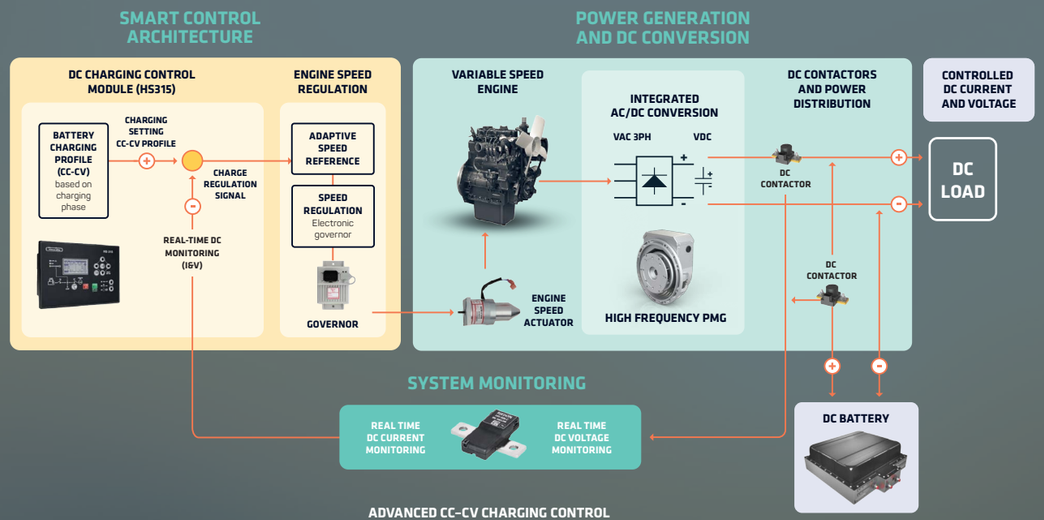
The variable-speed DC genset battery charger provides an efficient and reliable solution for advanced battery charging across a wide range of applications.

Based on a Mecc Alte Permanent Magnet Generator (PMG) with integrated AC/DC conversion, the system delivers regulated DC output while operating the engine at variable speed.

The DC Charging Control Module (HS315) manages the battery charging profile in Constant Current (CC) and Constant Voltage (CV) modes, automatically adapting to the different charging phases - Bulk, Absorption and Float - according to battery technology and operating conditions.

Real-time DC voltage and current monitoring generate a charge regulation signal, which feeds the adaptive speed reference generation.
The Speed Regulation Module (Electronic Governor) then adjusts engine speed through the speed actuator, modulating generator output power to precisely match charging demand.

The result is a high-efficiency charging system where DC output regulation is achieved through intelligent engine speed control - reducing fuel consumption, minimising engine wear and extending battery life while ensuring dependable power delivery.



ADVANCED CC-CV CHARGING CONTROL
Automatic transition between Constant Current and Constant Voltage modes according to the battery charging phase.

FIXED-SPEED DC

LIGHTING TOWER SYSTEM

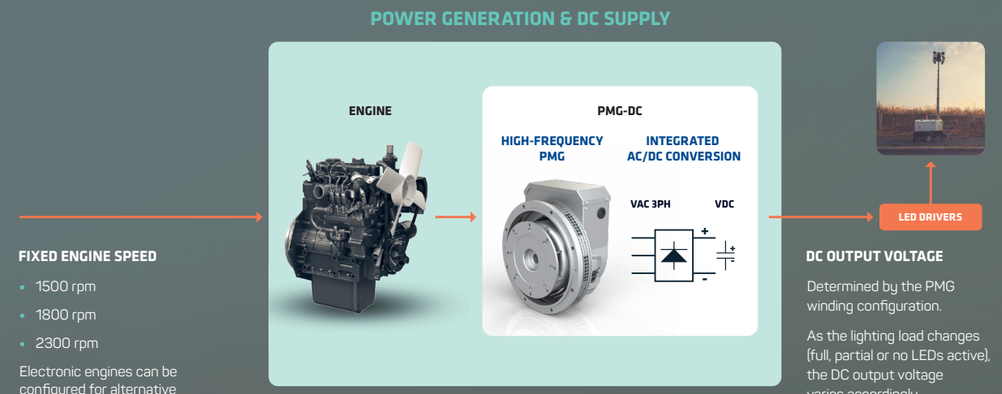
The Mecc Alte PMG with integrated AC/DC conversion provides a robust and reliable DC supply for LED lighting tower applications.

Designed for nominal 48 VDC or 72 VDC systems, it operates at fixed engine speeds - 1500 rpm, 1800 rpm or 2300 rpm - delivering up to 17 kW+ depending on configuration.

With fixed-speed operation and passive rectification, the DC output voltage varies according to load conditions - higher at light load and lower at full load. Each PMG winding configuration is carefully matched to the LED driver voltage limits, ensuring safe, efficient and optimised system performance in all operating scenarios.

KEY BENEFITS

- Wide DC voltage options for versatile LED applications
- Optimised for load-dependent voltage variation
- High efficiency and reliability
- Scalable power up to 17kW+



FIXED ENGINE SPEED

- 1500 rpm
- 1800 rpm
- 2300 rpm

Electronic engines can be configured for alternative fixed speeds if required.

DC OUTPUT VOLTAGE

Determined by the PMG winding configuration.

As the lighting load changes (full, partial or no LEDs active), the DC output voltage varies accordingly.

APPLICATIONS

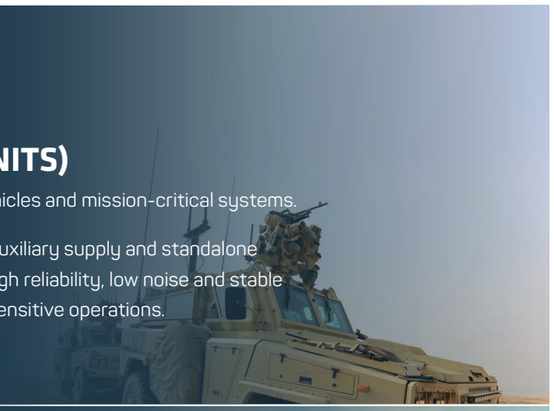
Power where needed, stability where it matters. Mecc Alte PMG delivers compact, reliable, speed-independent power generation for mobile platforms, auxiliary units, battery charging and hybrid systems. Used across marine, military, telecom, construction and agriculture, it supports both AC and DC architectures, ensuring efficient electrification where space, reliability and flexibility are critical.

AC DC

MILITARY APU (AUXILIARY POWER UNITS)

Reliable onboard power for defense vehicles and mission-critical systems.

PMG solutions deliver Li-ion charging, auxiliary supply and standalone generation in compact, rugged units. High reliability, low noise and stable output ensure readiness in harsh and sensitive operations.



AC DC

MARINE AUXILIARY GEN SET

PMG provides single-phase AC power and controlled DC charging for yachts and hybrid marine systems in compact installations.

Stable output at variable speed boosts efficiency and lowers noise. Supports 24V, 48V, 72V and 716V battery banks for seamless hybrid integration onboard.

AC DC

VEHICLE GENERATORS

PMG ensures reliable onboard power for camper vans and professional service vehicles, for both leisure and work use.

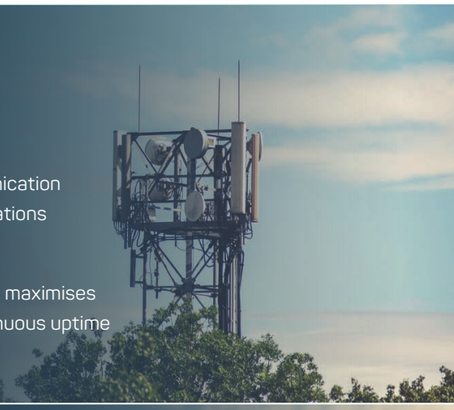
Compatible with AC/AC converters or direct DC output, it supports hybrid systems with batteries and backup gensets. Efficient, low-noise power at variable speed.

DC

TELECOM

Reliable DC power for remote and off-grid communication sites, ensuring uninterrupted operation of base stations and network infrastructure.

Integrated with batteries and hybrid sources, PMG maximises efficiency, reduces fuel use and guarantees continuous uptime in remote installations.

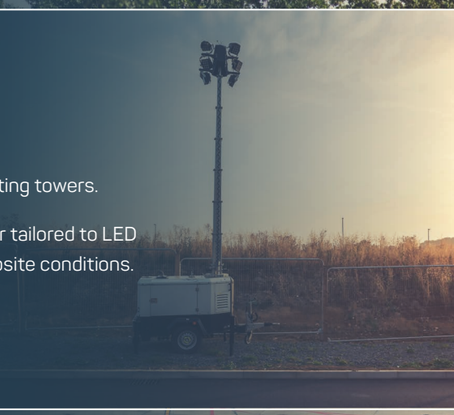


DC

LED LIGHTING TOWER

Robust DC supply for mining and construction lighting towers.

Fixed-speed PMG systems deliver stable DC power tailored to LED drivers, ensuring safe, efficient lighting in harsh jobsite conditions.



DC

GROUND SUPPORT EQUIP

Flexible power solutions for airport ground support vehiclesrequiring on-board battery charging.

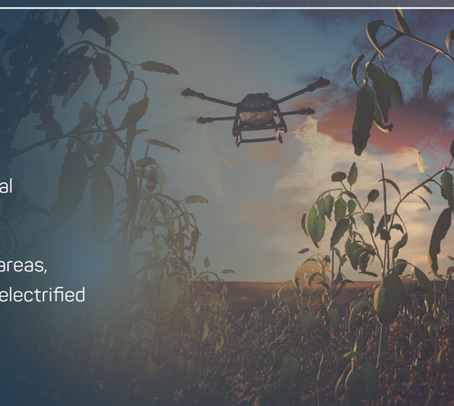
Variable-speed PMG architecture enables efficient DC charging for modern Li-ion batteries, cutting fuel consumption and reducing downtime.

DC

AGRICULTURE VEHICLES

Smart DC charging solutions for electric agricultural equipmentand drone support systems.

PMG enables efficient battery charging in remote areas, supporting the shift from conventional engines to electrified agricultural machinery.



VARIABLE-SPEED

PRODUCT RANGE

VARIABLE-SPEED AC

MULTI POLE PMG

AC | High Frequency | 3 Phase | 1 PF
Voltage: AC Output **Application:** AC/AC Converter
RPM: Variable **Insulation:** Class H
Temp. Rise / Ambient C° = 125/40 [H]

	Speed [rpm]									
MODEL	1000	1300	1500	1800	2000	2200	2500	3000	3600	4000
PM3G H30/16	1.5	1.9	2.1	2.6	2.9	3.2	3.8	4.6	5.5	6.0
PM3G H40/16	3.0	3.4	3.8	4.3	4.7	5.1	5.6	6.3	7.2	7.7
PM5G H25/20	2.2	2.8	3.3	4.0	4.4	4.8	5.5	6.5	7.5	8.3
PM5G H30/20	2.5	3.3	3.8	4.5	5.0	5.5	6.4	7.5	9.0	10.0
PM5G H42/20	2.8	3.6	4.2	5.1	5.7	6.4	7.5	9.0	11.0	12.2
PM5G H60/20	4.3	5.5	6.5	7.8	8.7	9.5	10.8	13.0	15.5	17.2
PM5G H80/20	5.5	7.2	8.3	10.0	11.0	12.0	13.8	16.5	19.5	21.7
PM5G H100/20	6.5	8.5	10.0	12.0	13.5	14.5	16.5	20.0	24.0	26.7
PM7G H60/20	7.0	9.0	10.0	12.0	13.0	14.7	16.7	20.0	24.0	26.7
PM7G H80/20	9.0	12.0	13.5	16.2	18.0	20.0	22.5	27.0	32.0	35.6
PM7G H120/20	12.0	15.0	17.5	21.0	23.3	25.5	29.0	35.0	42.0	46.7

MAX PWR kVA

2-STAGES POWER CONVERSION MODULE

Protection Rating: IP21: **Cooling:** IP21
Temperature: up to 40°C
Communication: CANBus

Model	P Nom [kWe]	Single-phase AC output (50/60 Hz)
230V AC RANGE		
AC/AC Converter 4.0	**4**	230V - 50Hz / 60Hz
AC/AC Converter 6.0	**6**	230V - 50Hz / 60Hz
AC/AC Converter 10.0	**10**	230V - 50Hz / 60Hz
AC/AC Converter 20.0	**20**	230V - 50Hz / 60Hz
AC/AC Converter 25.0	**25**	230V - 50Hz / 60Hz

Model	P Nom [kWe]	Single-phase AC output (50/60 Hz)
120V AC RANGE		
AC/AC Converter 2.0 - US	**2**	120V - 60Hz / 50Hz
AC/AC Converter 3.0 - US	**3**	120V - 60Hz / 50Hz
AC/AC Converter 4.0 - US*	**4**	**120V - 60Hz / 50Hz**
AC/AC Converter 5.0 - US	**5**	120V - 60Hz / 50Hz
AC/AC Converter 10.0 - US*	**10**	120V - 60Hz / 50Hz
AC/AC Converter 13.0 - US*	**13**	120V - 60Hz / 50Hz

* Super-compact

VARIABLE-SPEED DC

VOLTAGE: NOMINAL 24VDC

MULTI POLE PMG

Voltage: DC Nominal Output 24VDC **Charging Voltage:** up to 30VDC
RPM: Variable **Application:** Battery Charging
Insulation: Class H
Temp. Rise / Ambient C° = 125/40 [H]

	Speed [rpm]							
	1500		2000		2400		3000	
MODEL	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]
PM3G H30/16	23	0.7	53	1.6	87	2.6	120	3.6
PM3G H40/16	33	1.0	77	2.3	120	3.6	170	5.1
PM5G H25/20	87	2.6	120	3.6	187	5.6	263	7.9
PM5G H30/20	110	3.3	143	4.3	213	6.4	307	9.2
PM5G H42/20	127	3.8	160	4.8	237	7.1	340	10.2
PM5G H60/20	143	4.3	203	6.1	290	8.7	407	12.2
PM5G H80/20	213	6.4	297	8.9	390	11.7	507	15.2
PM5G H100/20	290	8.7	373	11.2	483	14.5	597	17.9
PM7G H60/20	307	9.2	390	11.7	510	15.3	630	18.9
PM7G H80/20	373	11.2	477	14.3	613	18.4	750	22.5
PM7G H120/20	460	13.8	580	17.4	730	21.9	920	27.6

VOLTAGE: NOMINAL 48VDC

MULTI POLE PMG

Voltage: DC Nominal Output 48VDC **Charging Voltage:** up to 58VDC
RPM: Variable **Application:** Battery Charging
Insulation: Class H
Temp. Rise / Ambient C° = 125/40 [H]

	Speed [rpm]							
	1500		2000		2400		3000	
MODEL	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]
PM3G H30/16	14	0.8	32	1.8	50	2.9	70	4.1
PM3G H40/16	20	1.2	45	2.6	70	4.1	100	5.8
PM5G H25/20	50	2.9	70	4.1	110	6.4	155	9.0
PM5G H30/20	65	3.8	85	4.9	125	7.3	180	10.4
PM5G H42/20	75	4.4	95	5.5	140	8.1	200	11.6
PM5G H60/20	85	4.9	120	7.0	170	9.9	240	13.9
PM5G H80/20	125	7.3	175	10.2	230	13.3	300	17.4
PM5G H100/20	170	9.9	220	12.8	285	16.5	350	20.3
PM7G H60/20	180	10.4	230	13.3	300	17.4	370	21.5
PM7G H80/20	220	12.8	280	16.2	360	20.9	440	25.5
PM7G H120/20	270	15.7	340	19.7	430	24.9	540	31.3

VARIABLE-SPEED DC

VOLTAGE: NOMINAL 72VDC

MULTI POLE PMG

Voltage: DC Nominal Output 72VDC
RPM: Variable
Insulation: Class H
Temp. Rise / Ambient C° = 125/40 [H]
Charging Voltage: up to 86VDC
Application: Battery Charging

	Speed [rpm]							
	1500		2000		2400		3000	
MODEL	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]
PM3G H30/16	10	0.9	23	2.0	37	3.2	52	4.5
PM3G H40/16	15	1.3	33	2.9	52	4.5	74	6.4
PM5G H25/20	37	3.2	52	4.5	82	7.0	115	9.9
PM5G H30/20	48	4.1	63	5.4	93	8.0	134	11.5
PM5G H42/20	56	4.8	70	6.1	104	8.9	148	12.8
PM5G H60/20	63	5.4	89	7.7	126	10.8	178	15.3
PM5G H80/20	93	8.0	130	11.2	171	14.7	223	19.1
PM5G H100/20	126	10.8	163	14.0	211	18.2	260	22.3
PM7G H60/20	134	11.5	171	14.7	223	19.1	274	23.6
PM7G H80/20	163	14.0	208	17.9	267	23.0	326	28.1
PM7G H120/20	200	17.2	252	21.7	319	27.4	401	34.5

VOLTAGE: NOMINAL 716VDC

MULTI POLE PMG

Voltage: DC Nominal Output 716VDC
RPM: Variable
Insulation: Class H
Temp. Rise / Ambient C° = 125/40 [H]
Charging Voltage: up to 800VDC
Application: Battery Charging

	Speed [rpm]							
	1500		2000		2400		3000	
MODEL	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]	I Max [A]	P Max [kW]
PM3G H30/16	1	1.0	3	2.3	5	3.7	6	5.1
PM3G H40/16	2	1.5	4	3.3	6	5.1	9	7.3
PM5G H25/20	5	3.7	6	5.1	10	8.1	14	11.4
PM5G H30/20	6	4.8	8	6.2	11	9.2	17	13.2
PM5G H42/20	7	5.5	9	7.0	13	10.3	18	14.7
PM5G H60/20	8	6.2	11	8.8	16	12.5	22	17.6
PM5G H80/20	11	9.2	16	12.8	21	16.9	28	22.0
PM5G H100/20	16	12.5	20	16.1	26	20.9	32	25.7
PM7G H60/20	17	13.2	21	16.9	28	22.0	34	27.1
PM7G H80/20	20	16.1	26	20.5	33	26.4	40	32.3
PM7G H120/20	25	19.8	31	24.9	39	31.5	50	39.6

DC FIXED-SPEED

LIGHTING TOWER PRODUCT RANGE

SELECTING THE CORRECT PMG MODEL

DC LIGHTING TOWER APPLICATION

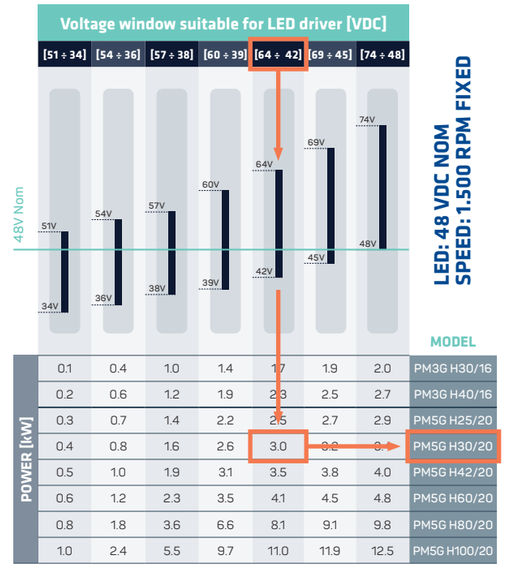
To select the appropriate PMG model, refer to the chart corresponding to the required nominal voltage (48 VDC or 72 VDC) and fixed engine speed (1500, 1800 or 2300 rpm).

Verify that the LED driver operating voltage window remains within the PMG output range, considering possible voltage drop at full load and engine speed variations.

Determine the total lamp power demand and identify the PMG model capable of delivering the required power at the selected speed.

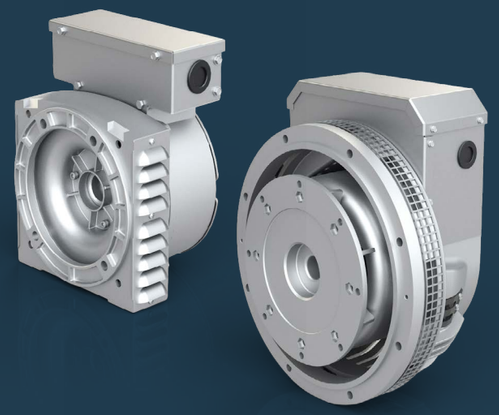
EXAMPLE

- **LED NOMINAL VOLTAGE: 48 VDC**
- **ENGINE SPEED: 1.500 RPM**
- **LED DRIVER VOLTAGE WINDOW: 45 ÷ 61 VDC**
- **TOTAL LOAD: 450 W × 6 LED LAMPS = 2.7 kWe**

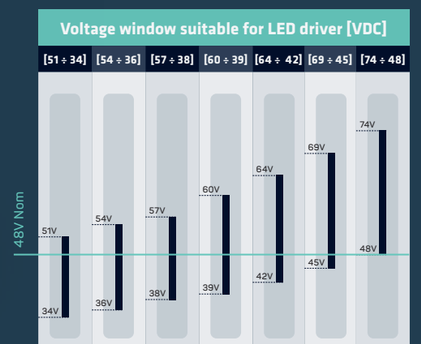


DC FIXED-SPEED

LIGHTING TOWER

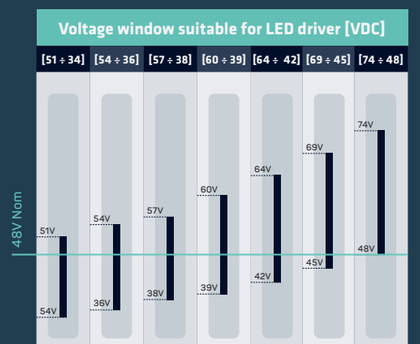


VOLTAGE: NOMINAL 48 VDC



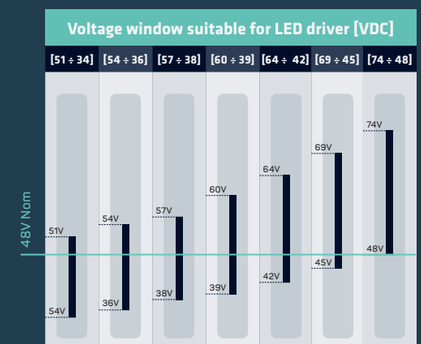
LED: 48 VDC NOM
SPEED: 1.500 RPM FIXED

POWER [kW]							MODEL
0.1	0.4	1.0	1.4	1.7	1.9	2.0	PM3G H30/16
0.2	0.6	1.2	1.9	2.3	2.5	2.7	PM3G H40/16
0.3	0.7	1.4	2.2	2.5	2.7	2.9	PM5G H25/20
0.4	0.8	1.6	2.6	3.0	3.2	3.4	PM5G H30/20
0.5	1.0	1.9	3.1	3.5	3.8	4.0	PM5G H42/20
0.6	1.2	2.3	3.5	4.1	4.5	4.8	PM5G H60/20
0.8	1.8	3.6	6.6	8.1	9.1	9.8	PM5G H80/20
1.0	2.4	5.5	9.7	11.0	11.9	12.5	PM5G H100/20



LED: 48 VDC NOM
SPEED: 1.800 RPM FIXED

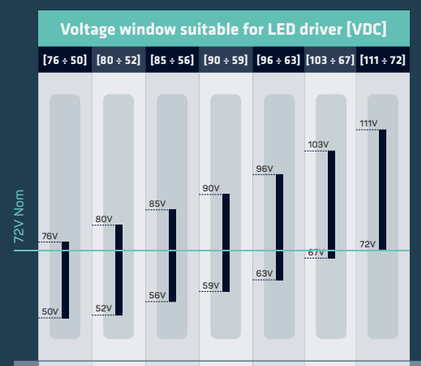
POWER [kW]							MODEL
0.1	0.6	1.2	1.8	2.2	2.5	2.6	PM3G H30/16
0.3	0.8	1.6	2.5	3.0	3.3	3.5	PM3G H40/16
0.4	0.9	1.8	2.9	3.3	3.5	3.8	PM5G H25/20
0.5	1.0	2.1	3.4	3.9	4.2	4.4	PM5G H30/20
0.6	1.3	2.5	4.0	4.6	4.9	5.2	PM5G H42/20
0.8	1.6	3.0	4.6	5.3	5.9	6.2	PM5G H60/20
1.1	2.3	4.7	8.6	10.5	11.8	12.7	PM5G H80/20
1.3	3.1	7.2	12.6	14.3	15.5	16.3	PM5G H100/20



LED: 48 VDC NOM
SPEED: 2.300 RPM FIXED

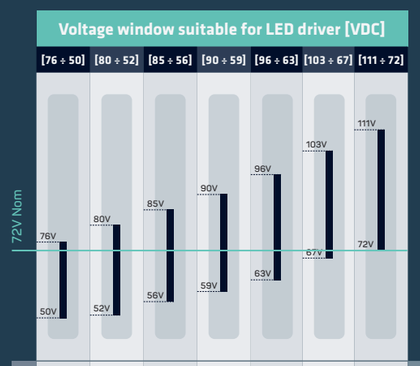
POWER [kW]							MODEL
0.2	0.8	1.7	2.5	3.1	3.5	3.6	PM3G H30/16
0.4	1.1	2.2	3.5	4.2	4.6	4.9	PM3G H40/16
0.5	1.3	2.5	4.0	4.6	4.9	5.3	PM5G H25/20
0.7	1.5	2.9	4.7	5.5	5.9	6.2	PM5G H30/20
0.8	1.8	3.5	5.6	6.4	6.9	7.3	PM5G H42/20
1.1	2.2	4.2	6.4	7.5	8.2	8.7	PM5G H60/20
1.5	3.3	6.6	12.0	14.7	16.6	17.8	PM5G H80/20
1.9	4.4	10.0	17.7	20.0	21.7	22.8	PM5G H100/20

VOLTAGE: NOMINAL 72 VDC



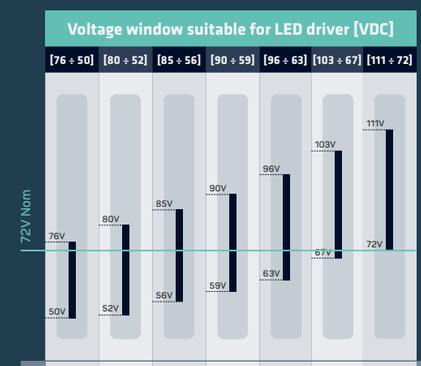
LED: 72 VDC NOM
SPEED: 1.500 RPM FIXED

POWER [kW]							MODEL
0.1	0.4	1.0	1.4	1.7	1.9	2.0	PM3G H30/16
0.2	0.6	1.2	1.9	2.3	2.5	2.7	PM3G H40/16
0.3	0.7	1.4	2.2	2.5	2.7	2.9	PM5G H25/20
0.4	0.8	1.6	2.6	3.0	3.2	3.4	PM5G H30/20
0.5	1.0	1.9	3.1	3.5	3.8	4.0	PM5G H42/20
0.6	1.2	2.3	3.5	4.1	4.5	4.8	PM5G H60/20
0.8	1.8	3.6	6.6	8.1	9.1	9.8	PM5G H80/20
1.0	2.4	5.5	9.7	11.0	11.9	12.5	PM5G H100/20



LED: 72 VDC NOM
SPEED: 1.800 RPM FIXED

POWER [kW]							MODEL
0.1	0.6	1.2	1.8	2.2	2.5	2.6	PM3G H30/16
0.3	0.8	1.6	2.5	3.0	3.3	3.5	PM3G H40/16
0.4	0.9	1.8	2.9	3.3	3.5	3.8	PM5G H25/20
0.5	1.0	2.1	3.4	3.9	4.2	4.4	PM5G H30/20
0.6	1.3	2.5	4.0	4.6	4.9	5.2	PM5G H42/20
0.8	1.6	3.0	4.6	5.3	5.9	6.2	PM5G H60/20
1.1	2.3	4.7	8.6	10.5	11.8	12.7	PM5G H80/20
1.3	3.1	7.2	12.6	14.3	15.5	16.3	PM5G H100/20



LED: 72 VDC NOM
SPEED: 2.300 RPM FIXED

POWER [kW]							MODEL
0.2	0.8	1.7	2.5	3.1	3.5	3.6	PM3G H30/16
0.4	1.1	2.2	3.5	4.2	4.6	4.9	PM3G H40/16
0.5	1.3	2.5	4.0	4.6	4.9	5.3	PM5G H25/20
0.7	1.5	2.9	4.7	5.5	5.9	6.2	PM5G H30/20
0.8	1.8	3.5	5.6	6.4	6.9	7.3	PM5G H42/20
1.1	2.2	4.2	6.4	7.5	8.2	8.7	PM5G H60/20
1.5	3.3	6.6	12.0	14.7	16.6	17.8	PM5G H80/20
1.9	4.4	10.0	17.7	20.0	21.7	22.8	PM5G H100/20

VARIABLE-SPEED PRODUCT KITS

A complete power architecture built around Mecc Alte PMG technology. Designed for variable-speed AC generation and DC charging systems, these integrated kits combine efficiency, control and compactness delivering smarter energy management wherever reliability and performance matter most.

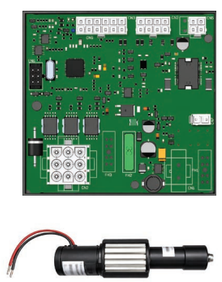
VARIABLE-SPEED AC

PMG - AC

MODEL	MODEL	MODEL
PM3G H30/16	PM5G H25/20	PM7G H60/20
PM3G H40/16	PM5G H30/20	PM7G H80/20
	PM5G H42/20	PM7G H120/20
	PM5G H60/20	
	PM5G H80/20	
	PM5G H100/20	

2-STAGES POWER CONVERSION MODULE

GOVERNOR & SPEED ACTUATOR

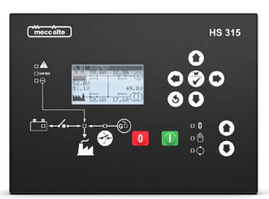


VARIABLE-SPEED DC

PMG - DC

MODEL
PM3G H30/16
PM3G H40/16
PM5G H25/20
PM5G H30/20
PM5G H42/20
PM5G H60/20
PM5G H80/20
PM5G H100/20
PM7G H60/20
PM7G H80/20
PM7G H120/20
24 VDC nom
48 VDC nom
72 VDC nom
716 VDC nom

HS315 DC CHARGING CONTROL MODULE



GOVERNOR & SPEED ACTUATOR

MECC ALTE SPA (HQ)

Via Roma
20 – 36051 Creazzo
Vicenza – ITALY

T: +39 0444 396111
F: +39 0444 396166
E: info@meccalte.it
aftersales@meccalte.it

MECC ALTE PORTABLE

Via A. Volta
1 37038 Soave
Verona – ITALY

T: +39 0456 173411
F: +39 0456 101880
E: info@meccalte.it
aftersales@meccalte.it

MECC ALTE POWER PRODUCTS

Via Melaro
2 – 36075 Montecchio
Maggiore (VI) – ITALY

T: +39 0444 1831295
F: +39 0444 1831306
E: info@meccalte.it
aftersales@meccalte.it

MECC ALTE SMARTECH

Viale dell'Unione
Europea, 33,
21013 Gallarate
VA, ITALY

E: controller@meccalte.com

ZANARDI ALTERNATORI

Via Dei Laghi
48/B – 36077 Altavilla
Vicenza – ITALY

T: +39 0444 370799
F: +39 0444 370330
E: info@zanardialternatori.it

UNITED KINGDOM

Mecc Alte U.K. LTD
6 Lands' End Way
Oakham
Rutland LE15 6RF

T: +44 (0) 1572 771160
F: +44 (0) 1572 771161
E: info@meccalte.co.uk

SPAIN

Mecc Alte España S.A.
C/ Rio Taibilla, 2
Polig. Ind. Los Valeros
03178 Benijofar (Alicante)

T: +34 (0) 96 6702152
F: +34 (0) 96 6700103
E: info@meccalte.es

CHINA

Mecc Alte Alternator (Nantong) Ltd
755 Nanhai East Rd
Jiangsu Nantong HEDZ 226100
People's Republic of China

T: +86 (0) 513 82325758
F: +86 (0) 513 82325768
E: info@meccalte.cn

INDIA

Mecc Alte India PVT LTD
Plot NO: 1, Talegaon
Dhamdhere S.O.
Taluka: Shirur,
District: Pune - 412208
Maharashtra, India

T: +91 2137 673200
F: +91 2137 673299
E: info@meccalte.in

U.S.A. AND CANADA

Mecc Alte Inc.
1229 Adams Drive
McHenry, IL, 60051

T: +1 815 344 0530
F: +1 815 344 0535
E: info@meccalte.us

GERMANY

Mecc Alte Generatoren GmbH
Bucher Hang 2
D-87448 Waltenhofen

T: +49 (0)831 540755 0
E: info@meccalte.de

AUSTRALIA

Mecc Alte Alternators PTY LTD
10 Duncan Road, PO Box 1046
Dry Creek, 5094, South
Australia

T: +61 (0) 8 8349 8422
F: +61 (0) 8 8349 8455
E: info@meccalte.com.au

FRANCE

Mecc Alte International S.A.
Z.E. la Gagnerie
16330 St. Amant de Boixe

T: +33 (0) 545 397562
F: +33 (0) 545 398820
E: info@meccalte.fr

FAR EAST

Mecc Alte (F.E.) PTE LTD
10V Enterprise Road, Enterprise 10
Singapore 627679

T: +65 62 657122
F: +65 62 653991
E: info@meccalte.com.sg

mecc alte

The world's largest independent producer of alternators 1 – 10,000kVA

www.meccalte.com

Member of CISQ Federation
RINA IQNET
CERTIFIED MANAGEMENT SYSTEM
ISO 9001

E309573

INSULATION SYSTEM

LISTED