

The Easy Choice for **Lighting Towers**

The range of **NSM generators** is now enriched by various models specifically developed for lighting towers.

K112 (2 Poles) and **K132** (4 Poles): compact single-phase alternators with **AC output** and a capacitor especially calibrated for this application. Light and dependable, with a direct SAE coupling designed to facilitate the assembly and limit the dimensions. The perfect choice when an auxiliary 230V power supply is needed.

PMG-DC: a new and complete range of **fixed speed** PMG with **DC output** thanks to the built-in rectifier bridges. Super compact, brushless and bearingless for easier maintenance. Designed in particular for powering LED lights. It is the ideal solution when space and efficiency become critical.

PMG-DCh: a Permanent Magnet Generator + DCh System + Actuator kit which is the perfect choice when the lighting tower has an integrated **battery pack**. In fact, our DCh System can manage a battery charging cycle thanks to the Controller's smart battery management. The system can work at **variable speed** through a linear actuator for engine speed regulation according to the load variations.



K112

Single-Phase Alternator - 2 Poles
AC Output - Brushless with Capacitor



K132

Single-Phase Alternator - 4 Poles
AC Output - Brushless with Capacitor



Key features:

- Modern design and technology
- More **compact** and **lighter** than regular alternators on the market
- Reliability and **high performance**
- **Sturdy and durable**
- Compatible with halogen, HID and LED lights
- **Auxiliary power supply**
- Especially calibrated capacitor
- THD guaranteeing optimal system performance
- Direct SAE coupling to facilitate the assembly
- Two eyebolts integrated in the machine body for **easier movement** during assembly

K112

Model	Output Power		Weight		Length	
	50Hz - 1500rpm	60Hz - 1800rpm	SAE	SAE	SAE	SAE
	[kVA] - cosφ 1		[kg]		[mm]	
K112 E	4,0	5,0	27,5		239	
K112 G	6,0	7,2	29,5		238	
K112 H	7,0	8,5	35,0		269	
K112 J	8,0	10,0	36,5		269	
K112 L	10,0	12,5	41,5		304	

K132

Model	Output Power		Weight		Length	
	50Hz - 1500rpm	60Hz - 1800rpm	SAE	SAE	SAE	SAE
	[kVA] - cosφ 1		[kg]		[mm]	
K132 A	3,5	4,5	38		248	
K132 B	5,0	6,0	44		268	
K132 C	7,0	8,0	52		293	
K132 D	8,5	10,0	60		318	

PMG-DC

Permanent Magnet Generator DC Output - Fixed Speed

Permanent Magnet Generator supplying continuous output voltage with **built-in rectifier bridges**, high power density and reduced weight / size.

The generator's **fixed speed** is set before production to perfectly adapt to any engine and lighting tower requirement for reduced fuel consumption, optimized engine power and voltage output.

PMG-DC 150 - 142 mm
PMG-DC 185 - 180 mm



Key features:

- **Ultra small design**
- Super compact and light but robust
- High efficiency (up to 90%)
- Suitable for LED lights
- **No electronic parts**
- Very low voltage drop
- Available both in SAE or cone
- Brushless and bearingless for very low maintenance

24Vdc

Model	Output Power				Weight
	1500 rpm	2000 rpm	2400 rpm	3000 rpm	
	[kW]				[Kg]
PMG-DC 150SC	1,9	2,4	2,6	2,6	cone 11,5
PMG-DC 185SC	3,4	3,6	3,8	3,8	SAE 16,5
PMG-DC 185PC	4,5	6,0	6,5	7,2	SAE 19,0

Different fixed speed and voltages on request

48Vdc

Model	Output Power				Weight
	1500 rpm	2000 rpm	2400 rpm	3000 rpm	
	[kW]				[Kg]
PMG-DC 150SC	3,0	4,0	4,8	5,3	cone 11,5
PMG-DC 185SC	4,5	6,0	7,5	7,7	SAE 16,5
PMG-DC 185PF	7,5	11,0	13,0	14,4	SAE 22,5

Different fixed speed and voltages on request

PMG-DCh

Permanent Magnet Generator DC Output - Variable Speed + DCh System **suitable for charging batteries** + Actuator kit

The system works at variable speed with the aim of consistently adjusting the engine speed according to the power demand of load and battery.

Each PMG-DCh is developed according to the specific engine model, gen-set control unit and battery pack, as it works as a battery charger thanks to the controller's smart battery management. The settings are adjustable through a programmer, a USB pen drive or via serial connection (from the gen-set control unit).

DCh system is supplied as a **kit of loose components** (previously tested), to be assembled by the customer. It consists of a controller + current sensors + contactor (optional).

Safety features: output short circuit protection, output reverse voltage protection (battery) on request, under and over-voltage protection, under and over-speed protection, over-temperature protection, overload protection.



Key features:

- **Built-in rectifier bridges** on the PMG granting DC output power directly from the generator.
- Speed range: the output voltage is directly connected to the engine speed.
- Voltage ripple depending on the number of engine cylinders, the weight/dimensions of the engine flywheel and the PMG.
- Protections: 2 built-in Pt100 **temperature sensors** (both on the windings and heatsink) with automatic derating.

48Vdc

Model	Max Power	Max Current	Max Power	Max Current	Max Power	Max Current	Max Power	Max Current	Weight PMG SAE 4 [kg]
	[kW]	[A]	[kW]	[A]	[kW]	[A]	[kW]	[A]	
	1500rpm		2000rpm		2400rpm		3000rpm		
PMG-DCh 150SC	3,0	54	4,0	71	4,8	86	6,0	107	---
PMG-DCh 185SC	4,5	80	6,0	107	7,5	134	9,0	160	16,5
PMG-DCh 185SF	7,5	134	8,4	150	9,0	160	9,0	160	20,5
PMG-DCh 185PF	7,5	134	11,0	196	13,8	246	16,8	300	22,5

AMER Group

Amer Group is a global enterprise with 6 production facilities throughout northern Italy and Switzerland; and 3 well-integrated branches providing sales, distribution & after-sales support around the world.

This network has been growing for 40 years, thanks to our commitment, to small daily improvements and especially to the strategic choice to reinvest our profits in Research & Development and facilities.

Our comprehensive custom solutions, such as generators, electronic control systems, DC motors, traction and linear motion systems, have been developed to carefully satisfy our international partners' needs.

Thanks to them, and to a tight-knit team that shares the company vision, we have become an important key player and a worldwide point of reference.

NSM

At NSM, we are dedicated to manufacturing **synchronous alternators and welders, PTO generators, and Permanent Magnet Generators (PMG)**.

We have solid roots thanks to almost 60 years of experience in producing and exporting our high-quality machines to more than 60 countries across the world.

Consistently with our role as key industry players, we never stop researching and developing innovative solutions for whatever the future of energy generation entails.

The real value of being **Made in Italy**: a mark of origin that we can proudly bear as we are one of the very few companies boasting all the production cycles, from design to manufacturing, in our Italy-based factories.

A 100% Italian entrepreneurial story, capable of conquering international markets and anticipating industry trends.



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