

PMG-GS

per gruppi elettrogeni

for Generating Sets

para grupos electrógenos



Il sistema è costituito da un generatore a magneti permanenti, da un inverter monofase completo di filtro EMC e da un kit di regolazione e controllo dei giri del motore (attuatore lineare).

La stabilità e la qualità della tensione generata (THD<2%) garantiscono il corretto e sicuro funzionamento di apparecchiature elettroniche, computer, elettrodomestici, ecc.

Questo sistema assicura una tensione in uscita dall'inverter costante in presenza di variazioni di carico. Le performance del motore sono ottimizzate; la velocità viene regolata in funzione del carico in uscita per cui il consumo di carburante e la rumorosità sono notevolmente ridotti.

Il generatore è stato realizzato con una macchina trifase a magneti permanenti, in modo da ottenere un'alta densità di potenza e ingombri limitati.

The system consists of a Permanent Magnet Generator, a single-phase inverter complete with EMC filter and a regulation kit for engine revolutions control (linear actuator).

The stability and the quality of the generated voltage (THD<2%) ensure the smooth and safe functioning of electronic devices, computers, household appliances, etc.

This control system guarantees a constant inverter output voltage if load variations occur. Engine performances are optimized; speed is adjusted according to the output load so that fuel consumption and noise are drastically reduced.

The generator is made of a three-phase permanent magnet machine, in order to obtain high power density and compact size.

El sistema consta de un generador de imanes permanentes, un inversor monofásico completo de filtro EMC y un kit para la regulación y el control de las revoluciones del motor (actuador lineal).

La estabilidad y la calidad del voltaje generado (THD<2%) permiten el correcto funcionamiento y la seguridad de los dispositivos electrónicos, ordenadores, electrodomésticos, etc.

Ese sistema de control garantiza un voltaje de salida del inversor constante en presencia de variaciones de carga.

Las prestaciones del motor son optimizadas; la velocidad es regulada en función de la carga de salida así que el consumo de combustible y el ruido se reducen drásticamente.

El generador se realiza con una máquina trifásica de imanes permanentes, para obtener una densidad de potencia elevada y tamaño reducido.

IT | Caratteristiche tecniche

PMG-GS

Tensione standard

50Hz: 110÷130Vac in alternativa* 220÷240Vac

60Hz: 110÷130Vac in alternativa* 220÷240Vac

* impostato con programmatore palmare

Range rpm (v. tabella dati) ogni PMG è realizzato per l'utilizzo ad un singolo range rpm

Classe d'isolamento H

Protezione

IP 21 (PMG)
IP 20 (inverter 3kVA)
IP 00 (inverter 6kVA-10kVA)*
* optional: coperchio IP 20

T.H.D. < 4% (110-130Vac)
< 2% (220-240Vac)

Precisione di tensione ± 2 %

Porte di comunicazione RS232 / RS485

Temperatura di funzionamento -10° C / +40° C

Protezioni di sicurezza:

- per cortocircuito in uscita
- per cortocircuito dell'IGBT
- protezione termica (temperatura max del dissipatore: 100° C)
- per sotto/sovratensione sia in entrata che in uscita
- derating automatico della corrente max in uscita in funzione della temperatura

EN | Technical characteristics

PMG-GS

Standard voltage

50Hz: 110÷130Vac alternatively* 220÷240Vac

60Hz: 110÷130Vac alternatively* 220÷240Vac

*set with handheld programmer

rpm Range (see data chart) every PMG is made to work within a single rpm range

Insulation class H

Protection

IP 21 (PMG)
IP 20 (inverter 3kVA)
IP 00 (inverter 6kVA-10kVA)*
* optional: cover IP 20

T.H.D. < 4% (110-130Vac)
< 2% (220-240Vac)

Voltage accuracy ± 2 %

Communication ports RS232 / RS485

Operating temperature -10° C / +40° C

Safety features:

- Output short circuit protection
- IGBT short circuit protection
- Thermal protection (max heatsink temperature 100° C)
- Under and over-voltage input and output protection
- Automatic max output current derating in function of the temperature

ES | Características técnicas

PMG-GS

Voltaje estándar

50Hz: 110÷130Vac en alternativa* 220÷240Vac

60Hz: 110÷130Vac en alternativa* 220÷240Vac

*configurado con programador de mano

Rango de rpm (véase tabla de datos) cada PMG es producido para el uso dentro de un solo rango de rpm

Clase de aislamiento H

Protección

IP 21 (PMG)
IP 20 (inversor 3kVA)
IP 00 (inversor 6kVA-10kVA)*
* opcional: tapa IP 20

T.H.D. < 4% (110-130Vac)
< 2% (220-240Vac)

Precisión del voltaje ± 2 %

Puertos de comunicación RS232 / RS485

Temperatura de funcionamiento -10° C / +40° C

Protecciones de seguridad:

- por cortocircuito de salida
- por cortocircuito del IGBT
- protección térmica (temperatura máx del disipador: 100° C)
- por sub/sobrevoltaje de entrada y de salida
- derating automático de la corriente máx de salida en función de la temperatura

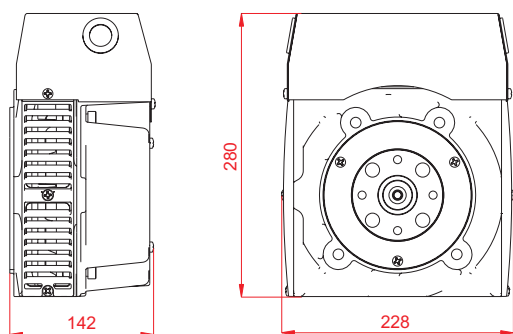
Modello Model Modelo	Potenza Output Power Potencia	Rendimento Efficiency Rendimiento	Range rpm rpm Range Rango de rpm	PMG		Peso Weight Peso		
	1 ph	(PMG + inverter)		cone	SAE 5*	Inverter	EMC filter	Actuator
	[kVA]	η%	[rpm]	[kg]	[kg]	[kg]	[kg]	[kg]
PMG-GS 150SB	3,0	0,87	2000 ÷ 3000 2400 ÷ 3600	9,0	---	5,5	1,3	2,0
PMG-GS 150SC	6,0	0,87	2000 ÷ 3000 2400 ÷ 3600	10,0	---	10,0	2,0	2,0
PMG-GS 185SC	10,0	0,87	2000 ÷ 3000 2400 ÷ 3600	14,5	14,0	10,0	3,0	2,0
PMG-GS 185SF	10,0	0,88	1700 ÷ 2400 1900 ÷ 2700	17,5	17,0	10,0	3,0	2,0

* SAE 4 = SAE 5 + 1kg

CONE

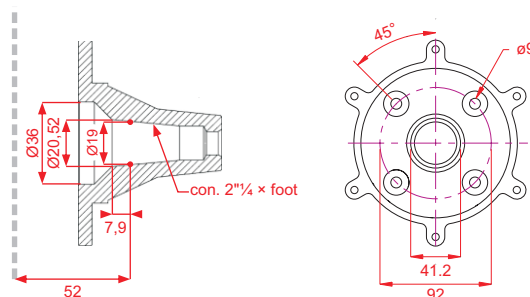
Overall Dimensions
Dimensiones

PMG 150

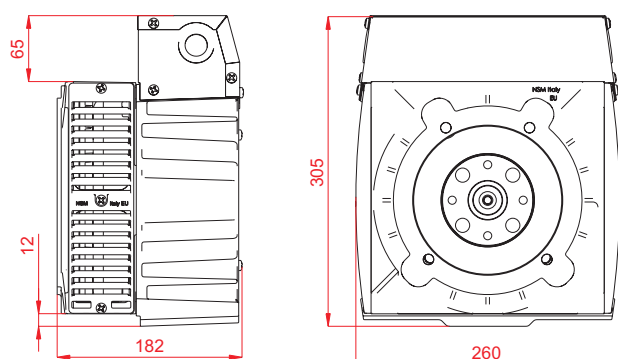


J609a

C 19



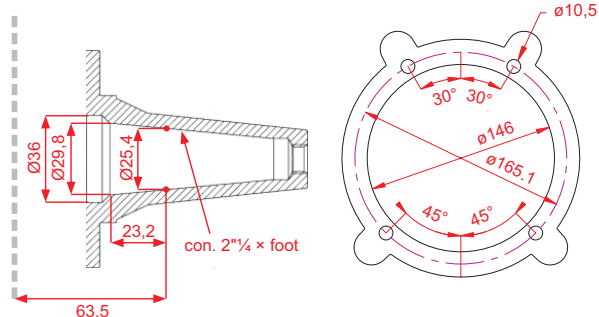
PMG 185



J609b

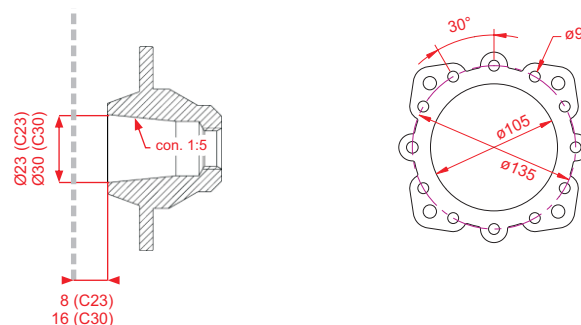
C 25,4

C 35



C 23

C 30



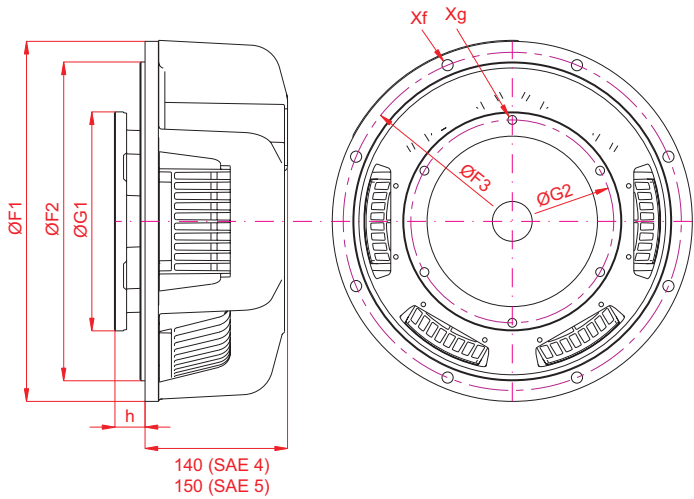
Flangia motore
Mounting Surface
Brida motor

Cono PMG
PMG Cone

Flangia PMG
PMG Flange
Brida PMG

Cone	J609a	J609b	C 23	C 30
PMG 150	x	x	x	
PMG 185		x	x	x

PMG 185

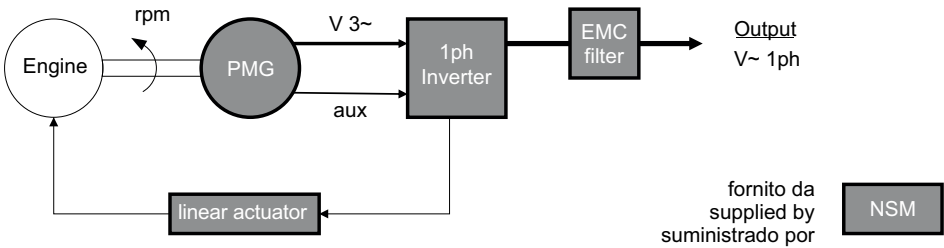


Flangia Flange Brida				
SAE	$\varnothing F1$	$\varnothing F2$	$\varnothing F3$	Xf
[mm]				
5	363	314,33	333,4	$\varnothing 11$ (8)
4	403	361,95	381,0	$\varnothing 11$ (12)

Giunto Joint Junta				
SAE	$\varnothing G1$	$\varnothing G2$	h	Xg
[mm]				
6,5	215,9	200,02	30,2	$\varnothing 9$ (6)
7,5	241,3	222,25	30,2	$\varnothing 9$ (8)

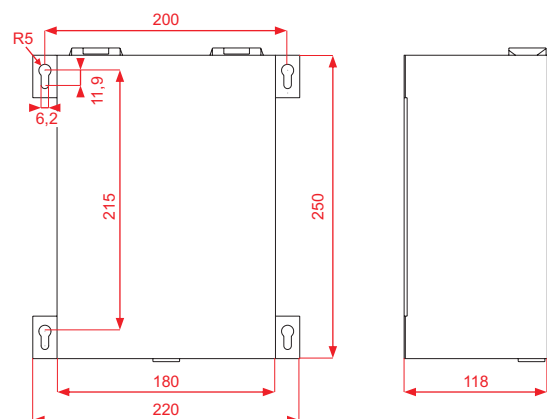
Schema a blocchi

Block Diagram
Diagrama de bloques

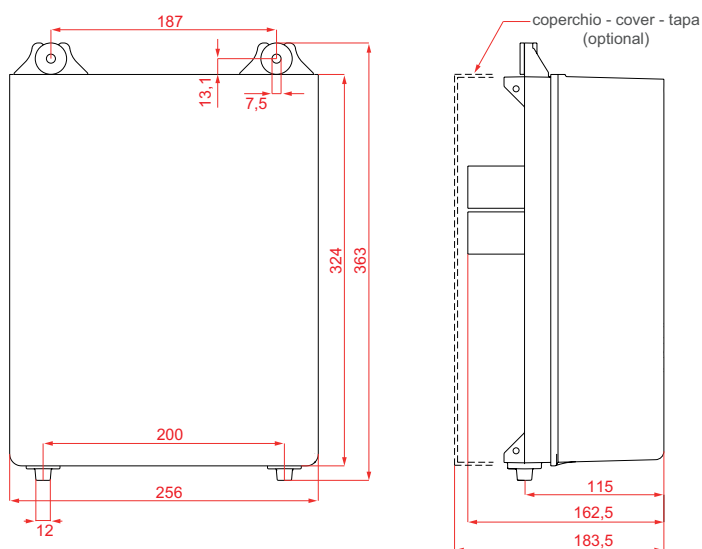


Inverter

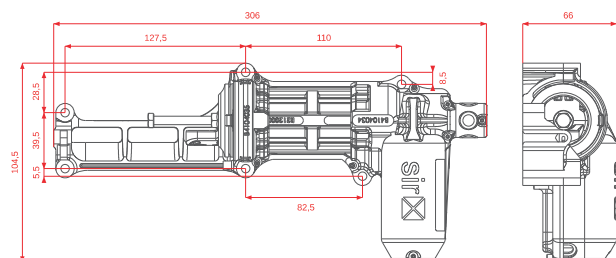
3kVA



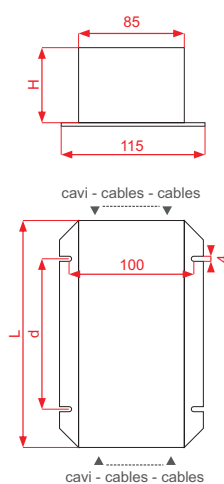
6kVA - 10kVA



Linear Actuator



EMC Filter



EMC Filter	L	d	H
	(mm)		
3kVA	140	96	60
6kVA	180	118	60
10kVA	180	118	70