

GSM

Low voltage Generator/Motor for cost effective hybrid systems

InMotion is a premier global supplier of PMAC-motors and related products to the vehicle industry. With a long history in development and manufacturing of high performance motors for demanding, high precision applications, InMotion is uniquely positioned to deliver a premium flywheel mounted generator with motoring and starting capability for a cost effective hybrid vehicle design.

The GSM is a family of permanent magnet synchronous AC Generators with continuous power levels from 14kW to 24kW for engine flywheel integration.



Product Features

- Ideal for industrial **hybrid vehicle** applications
- **PMAC technology for highest efficiency**, enables smallest possible footprint
- **Reliable and maintenance free** brushless machine
- Designed for **24 V – 80 V** nominal battery voltage
- Available in 3 different ratings, **14kW, 20kW, 24kW models**
- **Integrated temperature sensor**
 - supports thermal supervision
- **Integrated six step hall effect sensor** for motor shaft position
- Seamless system integration with **InMotion ACS Controllers** to provide the required DC power
- Optional **SAE J744 hydraulic pump** interface at the rear cover
- Design to fit **SAE #5** flywheel housing

Performance S2 60 min

GSM Model	800 rpm		1 800 rpm		2 800 rpm	
	Rated power	Efficiency	Rated power	Efficiency	Rated power	Efficiency
	(S2 60 min) kW	%	(S2 60 min) kW	%	(S2 60 min) kW	%
GSM306	5.2	89.5	11	93.7	14	93.8
GSM309	7.8	91.1	16	94.4	20	94.6
GSM312	10	91.9	20	94.7	24	94.7

Performance S2 2 min

GSM Model	800 rpm		1 800 rpm		2 800 rpm	
	Peak power	Efficiency	Peak power	Efficiency	Peak power	Efficiency
	(S2 2 min) kW	%	(S2 2 min) kW	%	(S2 2 min) kW	%
GSM306	8.2	83.3	20	91.2	32	93.0
GSM309	12	85.7	30	92.3	45	94.1
GSM312	16	87.4	40	93.0	57	94.6

Dimensions

GSM Model	Dimension "A" (mm)	Dimension "B" (mm)
GSM306	135.8	102.5
GSM309	165.8	132.5
GSM312	195.8	162.5

Cranking Torque

GSM Model	Torque (Nm)
GSM306	115
GSM309	175
GSM312	230

