



## GSM

# Low Voltage Generator/Motor for cost effective hybrid systems

In the demanding world of construction and mobile equipment, reliable power is essential—whether for charging batteries or driving hydraulic systems. That’s why our GSM electric motor - generator delivers industry-leading performance with efficiency, durability, and versatility.

**Unmatched Reliability** – Designed for extreme temperatures, dust, and vibration, our motors withstand the toughest environments.

**Energy Efficient** – Featuring a permanent magnet design, GSM motors generate more power while consuming less fuel, reducing operational costs.

**Low Maintenance & Durable** – With minimal moving parts and a rugged build, they ensure long-lasting performance with reduced downtime.

**Quiet & Smooth Operation** – Engineered for low noise, making them ideal for noise-sensitive job sites.

**Compact & Lightweight** – Space-optimized for easy integration without sacrificing power output.

**Versatile Power Output** – Perfect for charging high-capacity batteries, powering hydraulic systems, and supporting auxiliary power needs.

With GSM motors, you get the power, efficiency, and reliability to keep your equipment running all day.

## Models

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GSM306-4A

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GSM306-4B

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GSM309-4A

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GSM312-4A





## Motor Data

GSM Model Number				306-4A	306-4B	309-4A	312-4A	
Performance	Motoring	Tq S2-2m	2 min torque	Nm	195	157	198	309
				Lb-Ft	144	115.80	146	227.91
		Tq S2-60m	60 min torque	Nm	85.5	81.90	98.60	154
				Lb-Ft	63.1	60.41	72.72	113.6
	Generating	P S2-2m	2 min Generating power ( 48V )	kW	30.2	36.6	48.2	48.5
				kW	54.2	42.3	51.9	77.5
		P S2-60m	60 min Generating power ( 48V )	kW	14.8	17.6	21.8	23.4
				kW	14.8	17.6	21.0	25.5
	Kb	Back EMF Constant (22°C)		Vrms/kRPM	17.5	12.60	15.1	23.1
				Vpk/rad/sec	0.24	0.17	0.2	0.31
		Kt (loaded)	Kt (hot, 60min load)	N-m/Arms	0.25	0.182	0.216	0.34
				Lb-Ft / Arms	0.18	0.134	0.159	0.25
Electrical	Rm Lm	Resistance (L-L)	mΩ	2.8	1.73	1.2	2.1	
		Inductance (L-L) avg	μH	41	22.5	19.0	32.5	
	I(2m)	2 min current	Arms	900	900	900	900	
	I(60m)	60 min current	Arms	450	450	580	490	
Mechanical	Nmax	Max Rated Speed	RPM	3000	3000	3000	3000	
	Rth	Thermal Resistance	°C/Watt	0.165	0.204	0.149	0.147	
	Poles	Number Of Motor Poles	#	18	18	18	18	
Dimensions	Length		mm	150	150	180	210	
	Width		mm	395	395	395	395	
	Height		mm	395	395	395	395	

## Recommended Inmotion Motor Controller

Motor	48 Volts	80 Volts	96 Volts
ALL	ACS48L90	ACS80L70	ACS96L70