iPG* ALTERNATOR / GENERATOR

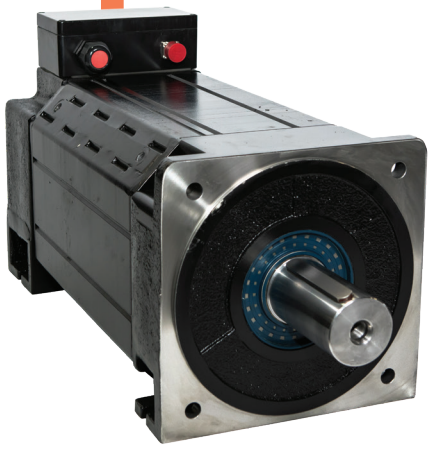
*(*Intelligent Premium Generator)*

CONTINUOUSLY MAXIMUM POWER

for small size Wind and Hydraulic Turbines

iPG* *Direct Drive PM* ALTERNATOR / GENERATOR

Highest Efficiency at all operations
Generates maximum power at every flow
Very compact design
Complete Solution for Renewable Energy
ON-Grid & OFF-Grid Solutions



GREEN MOTION Renewable Energy System

EMF Motor®

Why iPG* Alternator / Generator is so different than the rest of the generators in the world ?

* Intelligent Premium Alternator / Generator

iPG (Intelligent Premium Alternator / Generator) works with the patented EMF Motor principle that is most suitable for high torque low speed applications. iPG Intelligent Premium Alternator / Generator works synchronously and the windings have no influence on the pole number. The high pole number is achieved by intelligent magnetic field.

The Most Efficient Generation

Highest Efficiency
at all operation values even
at super low wind speed

Continuously maximum power generation

Patented Direct Drive

Gearless
Quiet
No oil
No maintenance
No cooling
Environmental friendly
Compact Size
Up to 3 frame size smaller

Different Voltage Option

220 - 400 V at the same motor

Reduced inventory cost

Direct Torque Control

Precise torque control
according to characteristic
of the turbines

The turbine operates
within the maximum power range
on the power curve

Data Tracking

Suitable for Cloud connection

Renewable Energy System - Green Motion

Complete Solution
for on-grid & off-grid projects

User friendly plug&play system

Complete Solution for Renewable Energy Managemet System

Cloud System

- Augment the data and enhance system performance.
- Leverage data transmission to the Cloud for comprehensive analysis and optimization.

Battery

- Off-Grid operation and battery backup Combine the battery systems with solar panels independently to further enhance your energy.

Solar Inverter

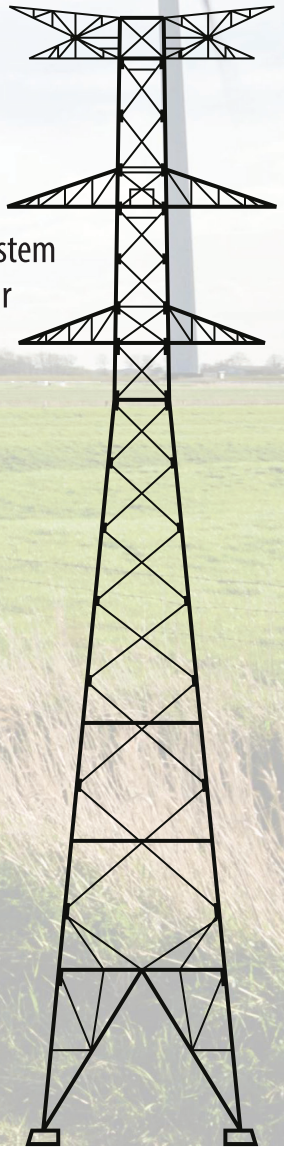
- Solar inverter works in perfect harmony with the controller, ensuring reliable and certified On-Grid electricity production.

Green Motion Smart Box

- Green Motion Smart Box serves as the central control and power management hub for your system.
- Transfers power from the generator to the solar inverter at a constant voltage.
- Manage power through intuitive communication with the solar inverter.
- Easily adjust settings and access real-time data via the user-friendly screen interface.
- Monitor cumulative data and energy consumption through the integrated energy meters.

On-Grid

- Perfect solution for on-grid system
- Compatible with certified Solar Inverters

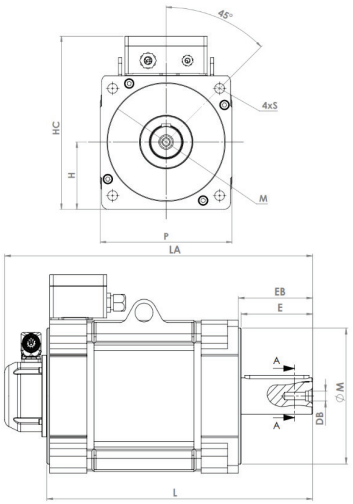


Torque Control

- Utilizing the speed-torque-power curves of the blades, our advanced torque control system adapts and ensures optimal performance.
- Achieve maximum operational efficiency across various wind speeds without the need for gearbox or energy losses.
- No maintenance required.
- Experience exceptional generator efficiency, exceeding 90%, even at extremely low wind speeds.

Motor Code	Pole Number	P_n (kW)	n_n (rpm)	M_n (Nm)	f_n (Hz)	kt (Nm/A)	I_n (A)	Efficiency (%)
SQM60- 40	66	0,16	150	10	83	13,9	0,7	67,5
		0,24	250	9	138	9,0	1,0	75,3
		0,47	500	9	275	5,1	1,8	81,8
		0,63	750	8	413	3,6	2,3	84,3
SQM60- 60	66	0,22	150	14	83	16,5	0,9	72,5
		0,34	250	13	138	10,8	1,2	80,0
		0,63	500	12	275	5,9	2,1	85,8
		0,86	750	11	413	4,2	2,6	87,8
SQM60-100	66	0,35	150	22	83	18,6	1,2	78,3
		0,52	250	20	138	11,6	1,7	84,5
		0,94	500	18	275	6,6	2,7	88,9
		1,26	750	16	413	4,3	3,7	90,3
SQM73- 60	66	0,46	150	29	83	22,1	1,3	82,2
		0,71	250	27	138	13,9	1,9	85,6
		1,20	500	23	275	7,5	3,1	90,5
		1,41	750	18	413	5,1	3,6	92,0
SQM73-100	66	0,75	150	48	83	22,9	2,1	85,7
		1,15	250	44	138	15,2	2,9	89,2
		1,83	500	35	275	8,2	4,3	92,5
		2,12	750	27	413	5,7	4,7	93,5
SQM73-140	66	1,07	150	68	83	22,7	3,0	87,5
		1,57	250	60	138	14,9	4,0	91,4
		2,41	500	46	275	8,5	5,4	94,0
		2,83	750	36	413	6,2	5,8	93,9
SQM73-180	66	1,38	150	88	83	22,0	4,0	88,8
		2,02	250	77	138	16,0	4,8	92,1
		3,09	500	59	275	8,9	6,6	95,0
		3,61	750	46	413	6,3	7,3	95,0
SQM100-140	66	1,57	100	150	55	33,0	4,6	89,0
		2,41	200	115	110	19,0	6,0	93,1
		3,33	300	106	165	13,4	7,9	95,0
		3,77	400	90	220	11,1	8,1	95,2
SQM100-200	66	2,28	100	218	55	33,5	6,5	90,7
		3,64	200	174	110	19,2	9,0	94,6
		4,52	300	144	165	14,0	10,3	95,3
		4,90	400	117	220	11,7	10,0	95,1
SQM100-240	66	2,51	100	240	55	35,3	6,8	91,2
		4,10	200	196	110	20,5	9,6	95,0
		5,43	300	173	165	14,1	12,3	95,3
		5,70	400	136	220	11,3	12,0	95,0
SQM132-140	66	2,99	100	286	55	40,9	7,0	91,0
		5,24	200	250	110	21,9	11,4	92,4
		6,28	300	200	165	15,9	12,6	93,4
		6,45	400	154	220	12,5	12,3	93,8
SQM132-200	66	4,24	100	405	55	40,5	10,0	91,5
		7,54	200	360	110	21,8	16,5	92,7
		8,95	300	285	165	15,8	18,0	93,8
		9,21	400	220	220	12,9	17,0	94,0
SQM132-240	66	5,13	100	490	55	40,8	12,0	91,7
		9,21	200	440	110	21,6	20,4	93,2
		10,7	300	340	165	15,7	21,6	94,5
		11,10	400	265	220	12,4	21,4	95,0

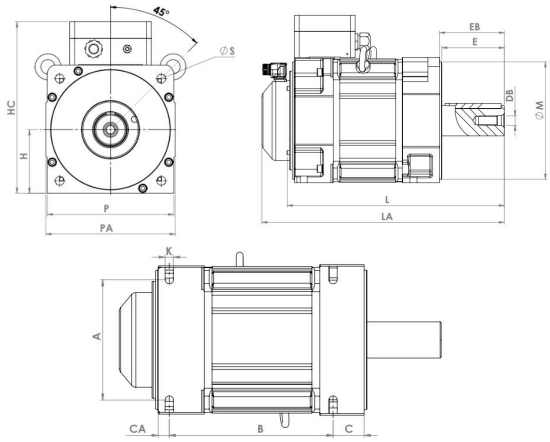
Motor Code	Pole Number	P_n (kW)	n_n (rpm)	M_n (Nm)	f_n (Hz)	kt (Nm/A)	I_n (A)	Efficiency (%)
SQM160-200	66	4,5	70	610	39	47,7	12,8	90,0
		6,1	100	580	55	36,3	16,0	91,8
		8,6	150	550	83	23,9	23,0	93,0
		11,0	200	525	110	19,4	27,0	93,3
		15,4	300*	490	165	13,1	37,5	93,7
SQM160-300	66	6,7	70	920	39	49,2	18,7	91,0
		9,1	100	870	55	35,5	24,5	92,9
		11,9	150	760	83	25,8	29,5	94,0
		14,3	200	685	110	21,1	32,5	94,2
		20,1	300*	640	165	14,0	45,8	94,5
SQM160-400	66	8,9	70	1220	39	49,2	24,8	91,9
		12,1	100	1160	55	36,1	32,1	93,3
		14,9	150	950	83	26,5	35,8	94,3
		17,6	200	840	110	22,6	37,2	94,5
		24,7	300*	785	165	14,8	53,0	94,5
SQM160-500	66	11,2	70	1530	39	49,4	31,0	92,2
		15,2	100	1450	55	23,9	60,6	93,8
		17,6	150	1120	83	28,1	39,8	94,8
		20,1	200	960	110	23,6	40,7	94,8
		28,3	300*	900	165	14,0	64,1	95,0
SQM200-300SE	88	11,0	70	1500	51	51,4	29,2	93,0
		14,1	100	1350	73	37,3	36,2	94,3
		18,1	150	1150	110	27,9	41,2	95,0
		23,0	200*	1100	147	20,9	52,7	95,1
SQM200-400SE	88	14,7	70	2000	51	50,0	40,0	93,8
		18,8	100	1800	73	37,4	48,1	94,7
		23,6	150	1500	110	27,9	53,7	95,3
		30,4	200*	1450	147	21,7	66,9	95,4
SQM200-500SE	88	18,3	70	2500	51	50,8	49,2	93,9
		23,0	100	2200	73	39,0	56,4	95,0
		28,3	150	1800	110	27,2	66,2	95,5
		36,6	200*	1750	147	20,1	86,9	95,5
SQM200-600SE	88	22,0	70	3000	51	48,8	61,5	94,1
		27,2	100	2600	73	37,5	69,4	95,1
		33,0	150	2100	110	28,0	75,0	95,6
		44,0	200*	2100	147	18,6	112,8	95,6
SQM200-700SE	88	25,7	70	3500	51	49,3	71,0	94,3
		31,9	100	3050	73	38,4	79,5	95,3
		38,5	150	2450	110	27,3	89,8	95,7
		51,3	200*	2450	147	21,8	112,5	95,7
SQM250-400SE	88	24,2	70	3300	51	50,3	65,6	94,9
		30,9	100	2950	73	38,6	76,4	95,7
		34,6	150	2200	110	26,9	81,9	96,0
		48,2	200*	2300	147	19,9	115,5	96,0
SQM250-600SE	88	35,9	70	4900	51	50,3	97,5	95,2
		45,5	100	4350	73	34,8	125,0	95,9
		51,8	150	3300	110	28,8	114,5	96,2
		71,2	200*	3400	147	19,9	170,6	96,2
SQM250-800SE	88	48,4	70	6600	51	46,4	142,2	95,5
		60,7	100	5800	73	38,7	150,0	96,1
		67,5	150	4300	110	30,7	140,0	96,2
		94,2	200*	4500	147	23,0	195,5	96,2
SQM315- 700SE	110	61,6	70	8400	64	50,9	165,0	93,2
		82,7	100	7900	92	40,5	195,0	94,8
		102,1	150	6500	138	20,4	318,0	95,0
		130,7	200*	6240	183	20,1	310,0	95,2
SQM315- 900SE	110	72,9	70	9950	64	52,4	190,0	93,5
		92,1	100	8800	92	39,1	225,0	94,5
		119,4	150	7600	138	26,2	290,0	95,0
		150,8	200*	7200	183	22,8	316,0	95,3
SQM315-1100SE	110	80,6	70	11000	64	55,0	200,0	94,0
		103,7	100	9900	92	32,2	307,0	95,0
		131,9	150	8400	138	27,9	301,0	95,2
		169,6	200*	8100	183	16,1	503,0	95,5



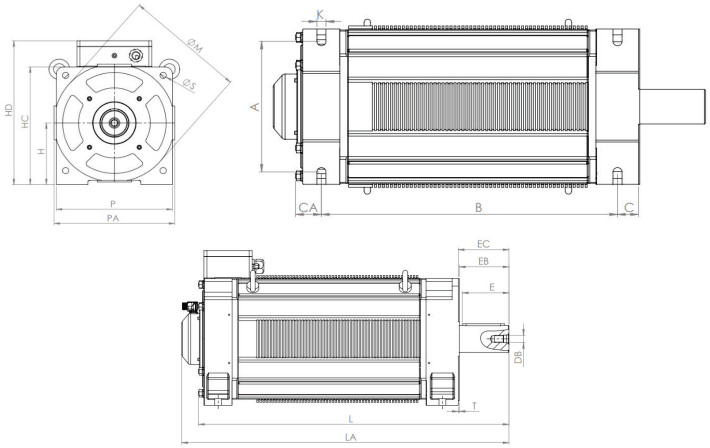
SQM 60 - SQM 73 - SQM 100

	D	DB	E	EB	F	G	H	HC	L	LA	M	P	S
SQM60-40	28k6	M8	50	53,5	8	31	60	165,85	177	236	110j6	122	9
SQM60-60									197	256			
SQM60-100									237	296			
SQM73-60	38k6	M12	72	77	10	41	73	187,7	235	292	130j6	146	11
SQM73-100									275	332			
SQM73-140									315	372			
SQM100-140	48k6	M12	100	104	14	51,5	102	262,5	372	432	180j6	200	15
SQM100-200									432	492			
SQM100-240									472	532			

SQM 100 IMB35 - SQM 132



SQM 160 - SQM 200 - SQM 150 - SQM 315



	A	B	C	CA	D	DB	E	EB	F	G	H	HC	K	L	LA	M	P	PA	S
SQM100-140	166	250	41	27	48k6	M12	100	104	14	51,5	115	275,5	12	422	482	180j6	200	206	14,5
SQM100-200		310												482	542				
SQM100-240		350												522	582				
SQM132-140	216	255	56	20	65m6	M20	134	139	18	69	132	356	15	475	542	250j6	264	270	18,5
SQM132-200		315												535	602				
SQM132-240		355												575	642				
SQM160-200	254	314	60	63,5	75m6	M20	135	140	20	79,5	160	403,2	14,5	603	-	300	320	-	18,5
SQM160-300		414												703					
SQM160-400		514												803					
SQM160-500		614												903					
SQM200-300	340	445	52,5	47	90m6	M24	165	168,5	25	95	220	512,7	23	731	787	420	404	420	22
SQM200-400		545												831	887				
SQN200-500		645												931	987				
SQM200-600		745												1031	1087				
SQM200-700		845												1131	1187				
SQM250-400	426	605	67	83	120k6	M24	210	-	32	127	275	635,2	25	1016	-	470	500	528	25
SQM250-600		805												1216					
SQM250-800		1005												1416					
SQM315-700	508	945,5	95	102,5	120m6	M24	244	249	32	127	315	803	28	1431	-	680	630	658	24
SQM315-900		1145,5												1631					
SQM315-1100		1345,5												1831					

EMF Motor reserves the right to amend the dimensions, technical data and design specification without prior notification.
For detailed drawings and for 3D step files please contact EMF Motor.

LA* closed loop dimension

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