

Innovation
Hannover 2013
SWISS Pavilion Hall 4

ReEnergy

ECC™: Premium Efficiency Motor with Variable Speed
Technical Data



**AC-motors consume 40%
of the industrial electrical energy,
ECC™ provides 20%.....40% energy-savings.**

ECC™ - FEATURES

- Premium efficiency electrically commutated motor (EC-motor)
- Nominal speed between 1000 - 6000 rpm, deliverable in 500 rpm steps: 1000/1500/2000/2500/3000/3500/4000/4500/5000/5500/6000 rpm
- 380-500V grid-voltage, 50/60Hz grid-frequency, no inrush current, power factor 0.9 150% overload 1 min / 10min
- Reference voltage 0-10V, speed reference 4-20mA, fault relays: normally open, normally closed 1A/100V, run permissive
- Options: serial interface, inputs for external sensors, located in the terminal box.

ECC™ - Product Matrix

Stator-Frame	Power	nom. ¹	Effic ²	Weight ²	Un	In ³	Imax	Fn	cosφ φ	Over-Load ⁴
Frame	kW	rpm		kg	V	A	A	Hz		
90	1,1	1500-6000	92,0%	12	380-500	1,9	3,9	50/60	0,9	1,5
90	1,5	1500-6000	92,0%	14	380-500	2,6	5,3	50/60	0,9	1,5
90	2,2	1500-6000	92,0%	16	380-500	3,9	7,8	50/60	0,9	1,5
100	3,0	1500-6000	92,0%	25,5	380-500	5,3	10,6	50/60	0,9	1,5
100	4,0	1500-6000	92,0%	28,5	380-500	7,1	14,1	50/60	0,9	1,5
100L	5,5	1500-6000	92,0%	31,5	380-500	9,7	19,4	50/60	0,9	1,5
112	7,5	1500-6000	92,0%	33,5	380-500	13,2	26,5	50/60	0,9	1,5
112L	11,0	1500-6000	92,0%	45	380-500	19,4	38,8	50/60	0,9	1,5

1) nom. Speed can be ordered between 1000 ... 6000 rpm in 500 rpm steps

3) In, Imax at 400V grid voltage

2) At 1500 rpm nominal speed

4) for 1 min every 10 minutes

ECC™ - Terminal Box Connections¹

X11	X12	X13	X21	X22	X23	X31	X32	X33	X41	X42
U	V	W	10V	Reference	Ref-GND	Flt-O	COM	Flt-C	Enable	Enable GND
Grid Connection			Speed Reference 4 – 20 mA			Fault Relais			Enable	

5) – Additional Control Options (Serial Interface) by optional board, placed in the Terminal Box

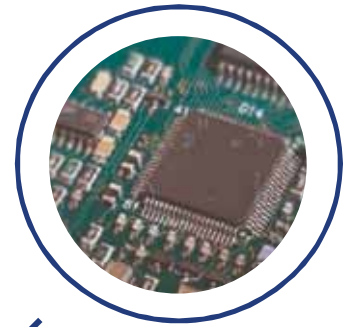
ECC™: PREMIUM-EFFICIENCY AC-MOTOR WITH VARIABLE SPEED

INTEGRATION

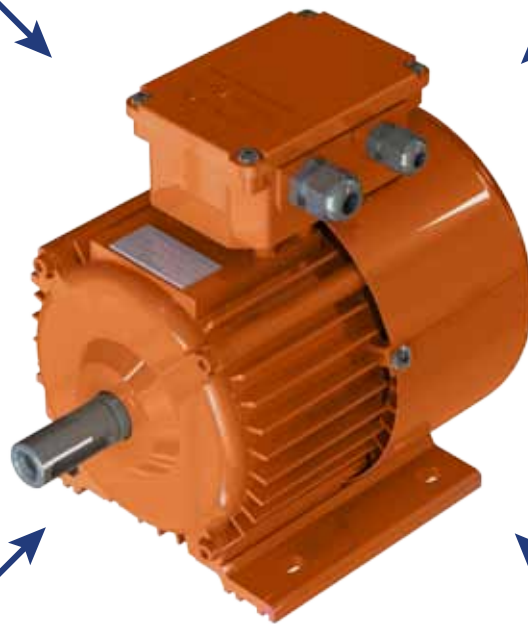
ECC™: premium efficiency motor, lowest weight, low space and shortest payback-time integrated in standard motor frame



Standard frame-size simplify the installation of the ECC motor



The build-in control communication and simplify the installation, the premium-efficiency and the variable speed save significantly energy

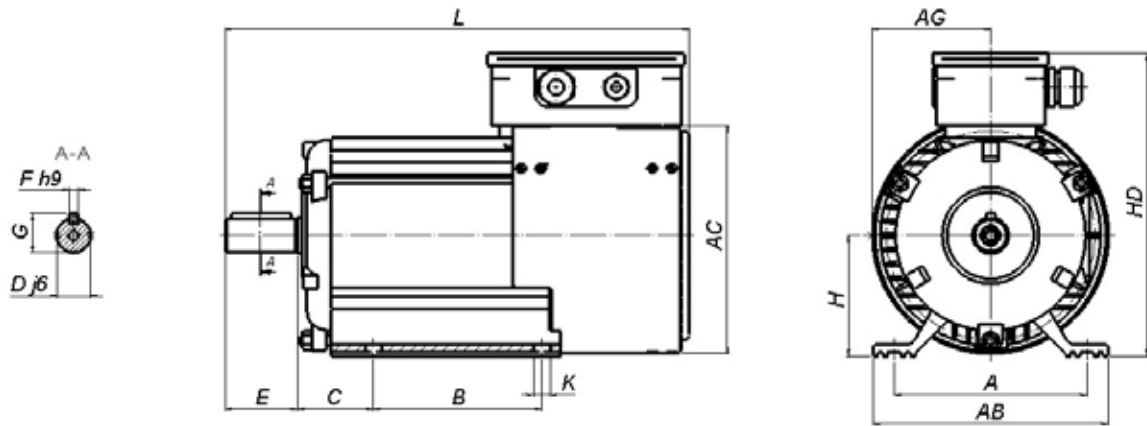


Speed reference, fault detection, communication Interfaces and more option build in the ECC motor



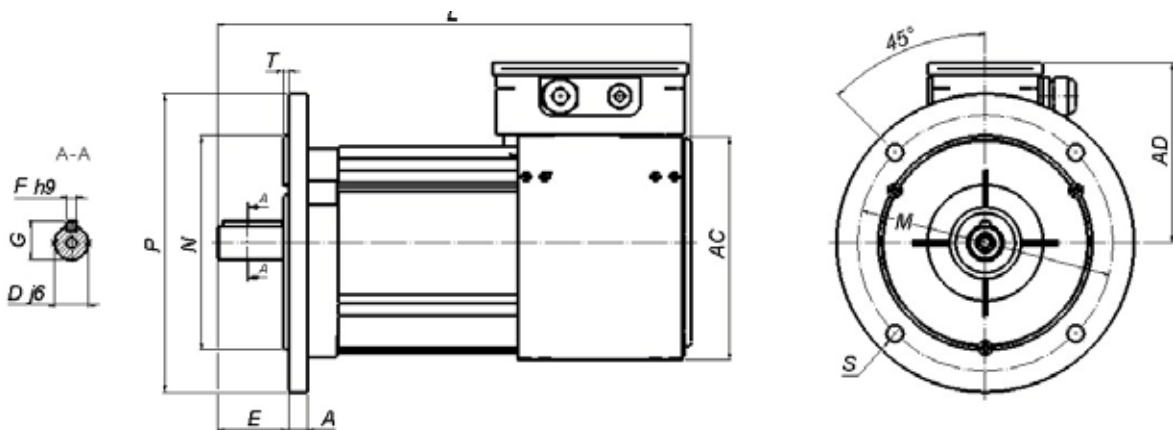
Specialised topology of the active motor-part allows super premium efficiency without rare earth materials

ECC™ - Dimensions



Foot Motor B3 B6 B7 B8

Frame	A	AB	AC	AG	B	C	D	E	F	G	H	HD	K	L
90	140	184	178	89	100	56	24	50	8	27	90	229	10	355
90L	140	184	178	89	125	56	24	50	8	27	90	229	10	380
90A	140	184	178	89	125	56	24	50	8	27	90	229	10	417
100	160	195	196	98	140	63	28	60	8	31	100	251	12	432
100L	160	195	196	98	140	63	28	60	8	31	100	251	12	454
112	190	220	220	110	140	70	28	60	8	31	112	275	12	442
112L	190	220	220	110	140	70	28	60	8	31	112	275	12	464
132	216	270	284	142	178	89	38	80	10	41	132	327	12	569



Flange Motor B5

Fame	A	AC	AD	D	E	F	G	L	M	N	P	S	T
90	11.5	178	139	24	50	8	27	355	165	130	200	12	3
90L	11.5	178	139	24	50	8	27	380	165	130	200	12	3
90A	11.5	178	139	24	50	8	27	417	165	130	200	12	3
100	15.5	196	151	28	60	8	31	432	215	180	250	15	4.5
100L	15.5	196	151	28	60	8	31	454	215	180	250	15	4.5
112	15.5	220	163	28	60	8	31	442	215	180	250	15	3.5
112L	15.5	220	163	28	60	8	31	464	215	180	250	15	3.5
132	20.7	284	195	38	80	10	41	569	265	230	300	15	3.3

All dimensions in mm