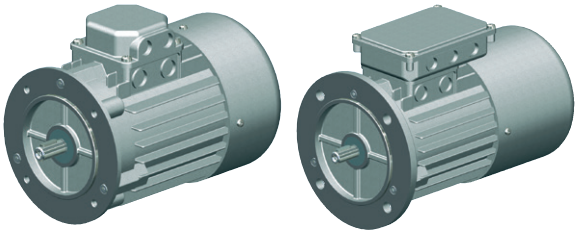
Three-phase AC motors

Overview | 0,37 kW - 5,5 kW



Technical data

Standard three-phase motors (asynchronous)
No-load speed~1500 rpm (other speeds on request)
230/400 V Δ 50 Hz, S_1 or S_3-75%, ISO F
Three-phase AC motors: IP 55
Three-phase AC motors with brakes: IP 54

Voltage ranges:

220 - 240 V Δ 50 Hz	380 - 415 V Y 50 Hz
380 - 415 V Δ 50 Hz	660 - 690 V Y 50 Hz

Size	Power P	Rated speed	Rated torque	Rated current at 400 V	for direct-on-line starting		Breakdown torque to rated torque	Moment of inertia J	Efficiency (at 100% load)	Power factor (at 100% load)	Weight without brake	Weight with brake
IEC	kW	rpm	Nm	A	Starting current to rated current I_A/I_N	Starting torque to rated torque M_A/M_N	M_K/M_N	approx. kgm^2	η %	cos	approx. kg	approx. kg
71	0,37	1360	2,6	1,2	2,8	2	2	0,0008	63	0,7	6	8
71	0,75*	1370	5,33	2,1	2,9	2,1	2,4	0,0012	69	0,78	8,3	10,3
80	0,75	1410	5,1	2	4,5	2,2	2,8	0,0020	70	0,7	9,3	13
80	1,5*	1390	10,4	3,4	4,1	3,2	3,2	0,0026	72	0,7	11,5	15,2
90L	1,5	1410	10,3	3,7	4,9	3	3	0,0032	79	0,74	14,4	18
90L	2,2*	1400	15,2	5,2	4,5	2,7	2,7	0,0039	78	0,81	17,5	21,1
100L	2,2	1420	14,8	5,3	4	2,3	2,7	0,0046	83	0,74	19,2	25,5
100L	3	1410	20,3	6,7	3,9	2,3	2,5	0,0056	82	0,79	22,4	28
100L	4*	1420	27	8,9	4	2,2	2,2	0,0065	81	0,82	26,3	31,9
112M	4	1440	27	9,4	3,3	2,5	2,9	0,0133	83	0,75	30,4	38
112M	5,5*	1440	36,4	11,7	3,9	2,1	2,3	0,0139	84	0,83	33	40,6

Size 63 to 132 available on short lead times
**Power is higher than the IEC-Norm (progressive)*
» Size 160 to 355 available on request

CAUTION

Overdimensioning the motor power risks overstressing other components.
The effects must be considered not only under load but also for the no-load case.

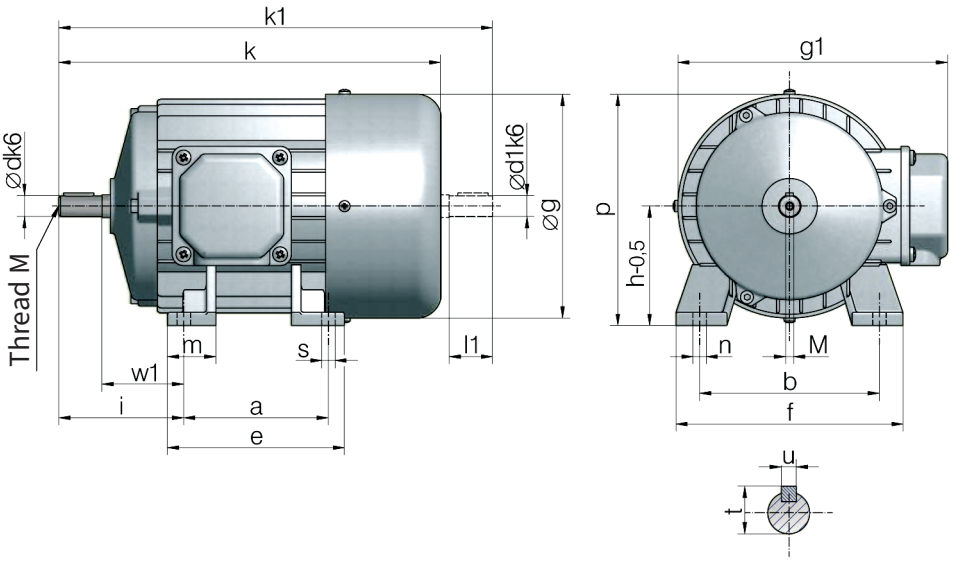
We supply **motor brakes** as standard for a connection voltage of 230V AC, operating voltage 205 V DC, with bridge rectifiers.

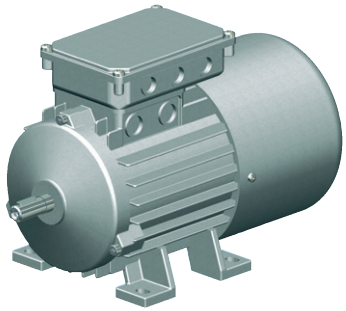
Ordering example: **90-P4-1,5-B5-B-2W**

Size
Number of poles - speed 4-polig = 1500 min^{-1}
Power [kW]
Design
with brake (if required)
with a second shaft end (if required)

Three-phase AC motors

Pedestal mounted type B3





For this type, we can supply a flanged motor (e.g.: B14) with additional pedestal mounts fitted. This version is generally available on a shorter lead time. The dimensions remain the same.

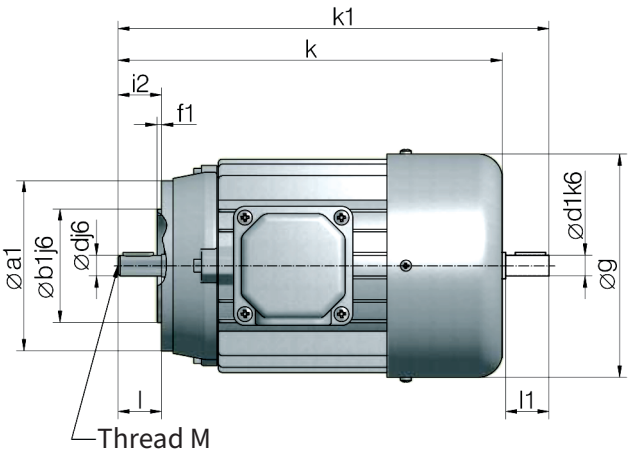
Size	a1	b1	e1	c1	f1	g	i2	s1	d	l	t	u	u
71	90	112	141	71	75	142	7	7	45	14	30	16	5
80	100	125	159	80	90	160	9	17	50	19	40	21,5	6
90	125	140	179	90	106	180	9	17	56	24	50	27	8
100	140	160	199	100	123	200	12	20	63	28	60	31	8

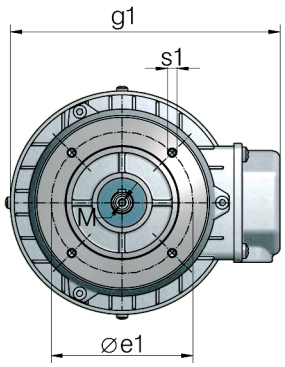
Size	kW	without brake				with brake	with brake and second shaft end				c	e	f	g1	M
	(4-pol.)	k	k1	d1	l1	k	k	k1	d1	l1					
71	0,37	248	281	14	30	2 63	295	325	11	23	11	108	136	188	5
71	0,75	248	281	14	30	263	295	325	11	23	11	105	136	188	5
80	0,75	277	315	19	40	305	330	375	19	40	11	125	154	211	6
80	1,5	277	315	19	40	305	330	375	19	40	11	125	154	211	6
90	1,5	329	378	24	50	390	390	432	19	40	13	155	174	227	8
90	2,2	329	378	24	50	348	390	432	19	40	13	155	174	227	8
100	3	369	429	28	60	433	433	487	24	50	14	175	192	248	10
100	4	369	429	28	60	433	433	487	24	50	14	175	192	248	10

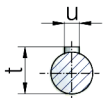
We reserve the right to change the dimensions without changing the motor designation.

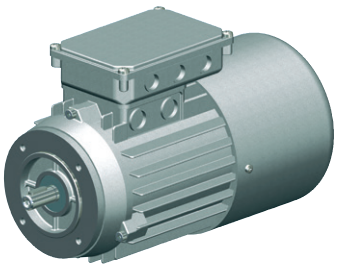
Three-phase AC motors with brakes

Flange profile B14C, small flange









B14: Flange with internal thread
C: Small flange

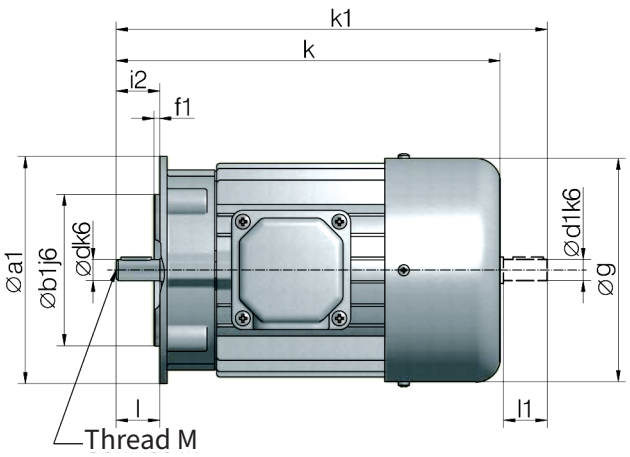
Baugröße	a1	b1	e1	f1	g	i2	s1	d	l	t	u
71	105	70	85	2,5	141	30	M6	14	30	16	5
80	120	80	100	3	159	40	M6	19	40	21,5	6
90	140	95	115	3	179	50	M8	24	50	27	8
100	160	110	130	3,5	199	60	M8	28	60	31	8

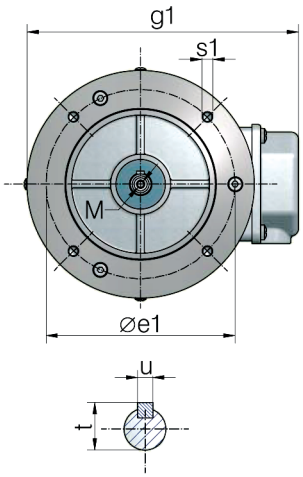
Size	kW	without brake				with brake	with brake and second shaft end				g1	M
	(4-pole)	k	k1	d1	l1	k	k	k1	d1	l1		
63	0,18	212	238	11	23	261	261	285	9	20	172	4
63	0,25	212	238	11	23	239	261	285	9	20	172	4
71	0,37	248	281	14	30	263	295	325	11	23	188	5
71	0,75	248	281	14	30	263	295	325	11	23	188	5
80	0,75	277	315	19	40	305	330	375	19	40	211	6
80	1,5	277	315	19	40	305	330	375	19	40	211	6
90	1,5	329	378	24	50	390	390	432	19	40	227	8
90	2,2	329	378	24	50	348	390	432	19	40	227	8
100	3	369	429	28	60	433	433	487	24	50	248	10
100	4	369	429	28	60	433	433	487	24	50	248	10

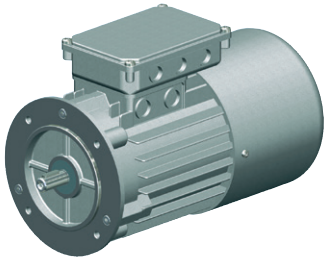
We reserve the right to change the dimensions without changing the motor designation.

Three-phase AC motors with brakes

Flange profile B14B, large flange







B14: Flange with internal thread
B: Large flange

Size	a1	b1	e1	f1	g	i2	s1	d	l	t	u
71	140	95	115	3	141	30	M8	14	30	16	5
80	160	110	130	3,5	159	40	M8	19	40	21,5	6
90	160	110	130	3,5	179	50	M8	24	50	27,5	8
100	200	130	165	3,5	199	60	M10	28	60	31	8

Size	kW	without brake				with brake	with brake and second shaft end				g1	M
	(4-pole)	k	k1	d1	l1	k	k	k1	d1	l1		
71	0,37	248	281	14	30	263	295	325	11	23	188	5
71	0,75	248	281	14	30	263	295	325	11	23	188	5
80	0,75	277	315	19	40	305	330	375	19	40	211	6
80	1,5	277	315	19	40	305	330	375	19	40	211	6
90	1,5	329	378	24	50	390	390	432	19	40	227	8
90	2,2	329	378	24	50	348	390	432	19	40	227	8
100	3	369	429	28	60	433	433	487	24	50	248	10
100	4	369	429	28	60	433	433	487	24	50	248	10

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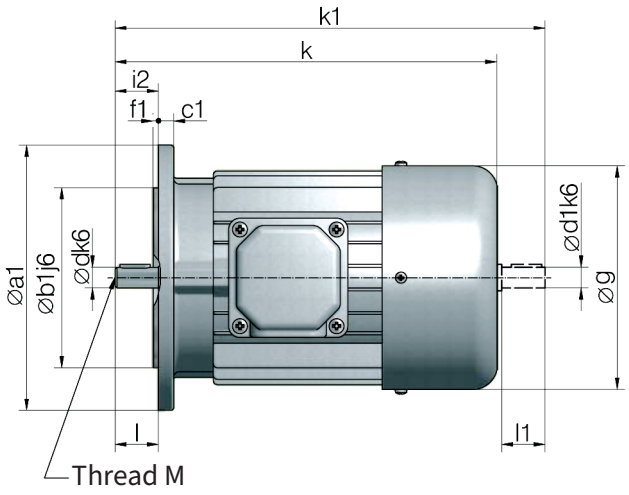
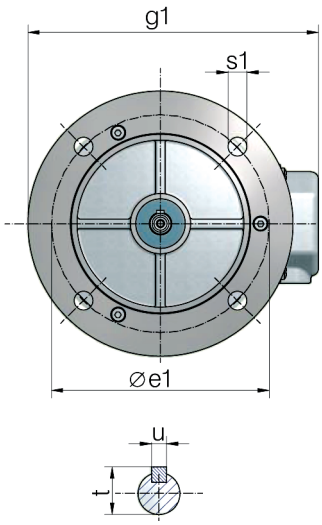
Three-phase AC motors

Flange profile B5





B5: Flange with through holes

Size	a1	b1	e1	c1	f1	g	i2	s1	d	l	t	u
71	160	110	7	130	3,5	141	30	9,5	14	30	16	5
80	200	130	8	165	3,5	159	40	11,5	19	40	21,5	6
90	200	130	8	165	3,5	179	50	11,5	24	50	27	8
100	250	180	10	215	4	199	60	14	28	60	31	8

Size	kW	without brake				with brake	with brake and second shaft end				g1	M
	(4-pole)	k	k1	d1	l1	k	k	k1	d1	l1		
71	0,37	248	281	14	30	263	295	325	11	23	188	5
71	0,75	248	281	14	30	263	295	325	11	23	188	5
80	0,75	277	315	19	40	305	330	375	19	40	211	6
80	1,5	277	315	19	40	305	330	375	19	40	211	6
90	1,5	329	378	24	50	390	390	432	19	40	227	8
90	2,2	329	378	24	50	348	390	432	19	40	227	8
100	3	369	429	28	60	433	433	487	24	50	248	10
100	4	369	429	28	60	433	433	487	24	50	248	10

We reserve the right to change the dimensions without changing the motor designation.