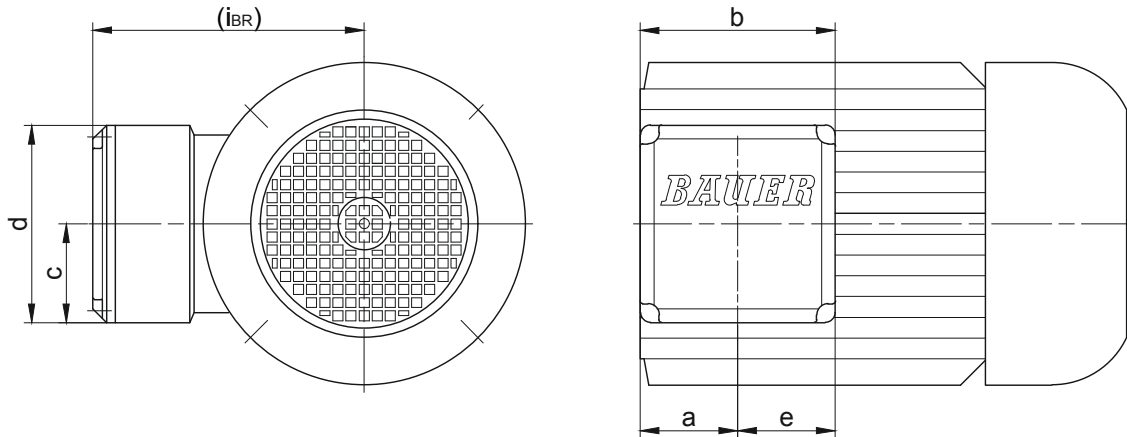


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Motor Mounted Components - Dimensions

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Standard terminal box



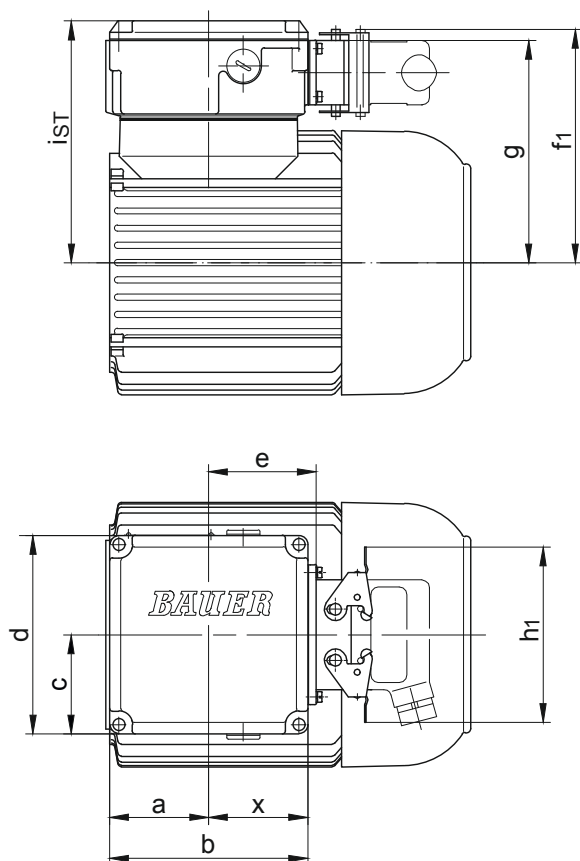
Motor/ Motor with brake	Dimensions (mm)						Code	Cable entry		max. spanner width for cable entry gland
	a	b	c	d	e	i/i _{BR}		Major (M)	Next to (N)	
S..04..	42.5	88	44	88	44	90	KAG1	M=2xM20x1.5	-	24 mm
S..06..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	-	29 mm
S..08..	50	100	50	100	50	115	KAG2	M=2xM25x1.5	-	29 mm
S..09..	50	100	50	100	50	124	KAG2	M=2xM25x1.5	-	29 mm
S..11..	66.5	133	66.5	133	66.5	165	KAG3	M=2xM32x1.5	-	-

Motor-mounted components

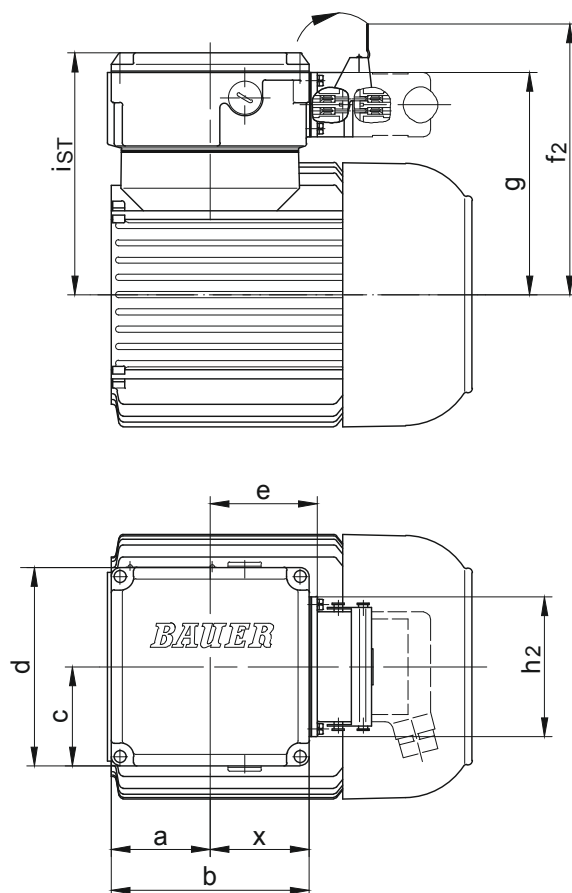
Dimensions

Terminal box for plug-connector

Standard design (two brackets)

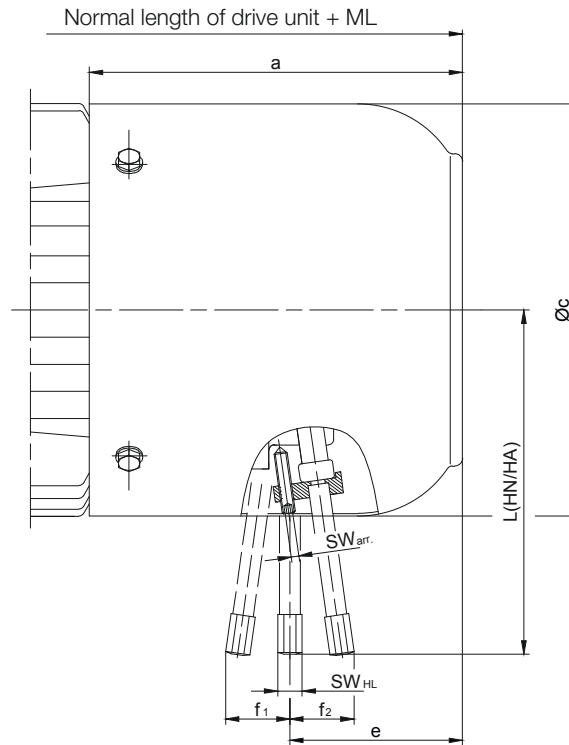


Optional for DESINA (one bracket)



Motor	Size Terminal box	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	i _{ST}	x
S..04..	TBS1	30	90	52.5	106	49	118.5	147	111	117	93	124.5	46
S..06..	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
S..08..	TBS1	45	90	52.5	106	49	143.5	172	136	117	93	149.5	46
S..09..	TBS2	62	132	66	135	71.5	158.5	187	158	117	93	164	68.5
S..11..	TBS2	62	132	66	135	71.5	175.5	191	166	117	93	181	68.5
Dimensions in millimetres (mm)													

Motor with standard brake



Motor	Brake	ML (mm) Additional length with brake	Dimensions (mm)								Additional weight kg
			a	Øc	e	f ₁	f ₂	L(HA/HN)	SW _{HL}	SW _{arr.}	
S..04..	E003	43.5	97	110.5	58.5	20.5	24	96/102	11	11	1.0
S..06..		42	102	123	58.5						
S..08..	ES(X)010	66	141	156	68	-	29	132	8	2.5	2.6
S..09..	ES(X)010	93	173	176	99	-	29	132	8	2.5	2.7
	ES(X)027				91	-	35.5	162			4.2
S..11..	ES(X)027	98	195	218	103	-	35.5	162	8	2.5	4.5
	ES(X)040				100	-	37	172			6.3
	ES(X)070				96	-	34.5	190			8.5

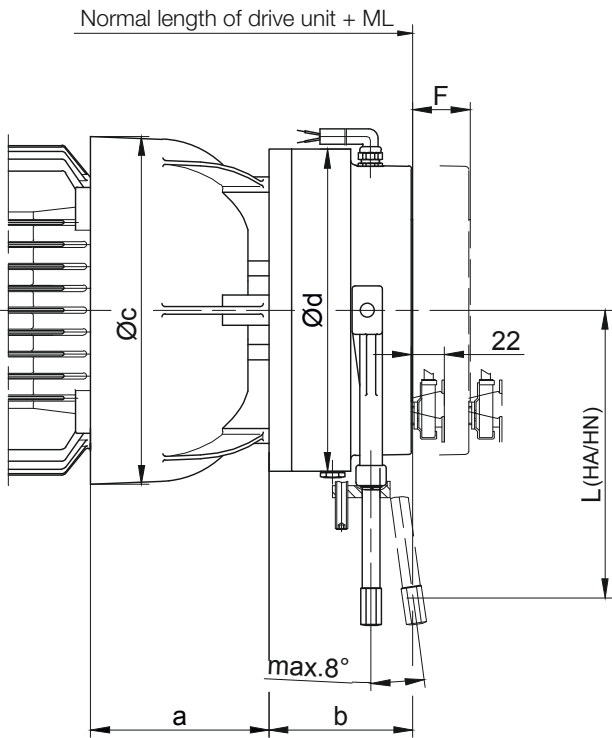
HA = manual release lockable

HN = manual release not lockable

Motor-mounted components

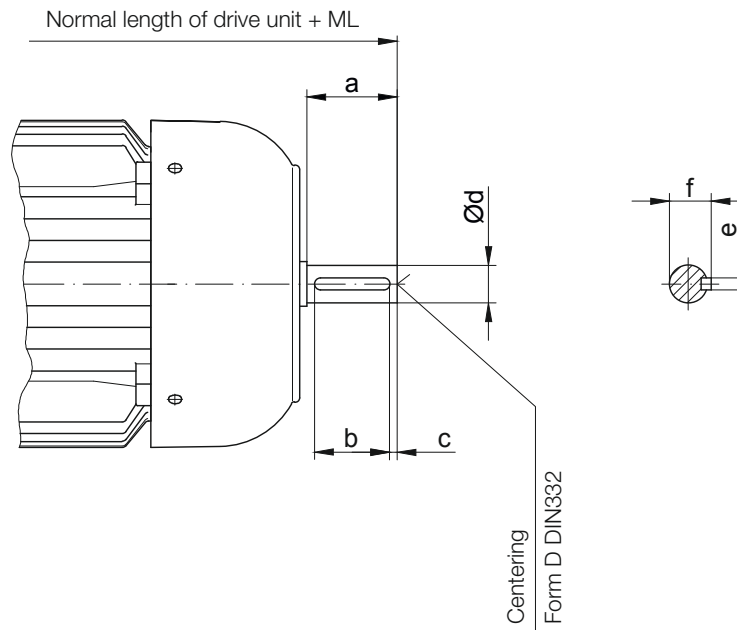
Dimensions

“Heavy-Duty“ - brake



Motor	Brake	Additional length with brake (mm)		Dimensions (mm)					Additional weight kg
		ML Standard	ML Microswitch	a	b	c	Ød	L (HA/HN)	
S..08..	EH(X)027	79	101	83.5	66.5	166	145	162	5.5
S..09..	EH(X)040	90	112	102	73	191	168	172	8.3
S..11..	EH(X)125	114	136	120	95	231	213	208.5	19.5
HA = manual release lockable HN = manual release not lockable									

Motor with second shaft end

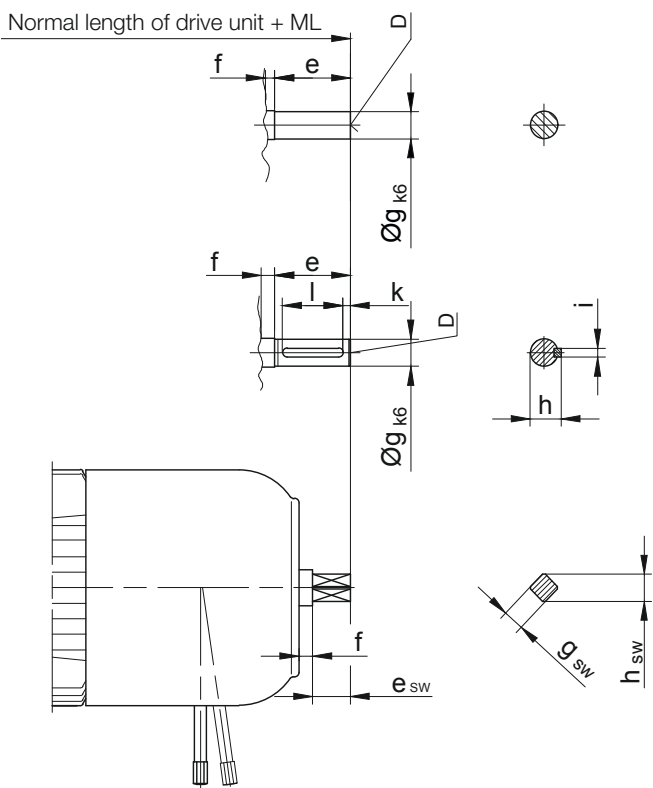


Motor	ML (mm)		Dimensions (mm)						Centering DIN 332
	Additional length with second shaft end		a	b	c	d	e	f	
S..04..	20		15	-	-	8 _{g6}	-	-	-
S..06..	25		20	-	-	10 _{k6}	-	-	-
S..08..	45		40	30	5	16 _{k6}	5	18	D5
S..09..	55		50	40	5	20 _{k6}	6	22.5	D5
S..11..	65		60	50	5	25 _{k6}	8	28	D8

Motor-mounted components

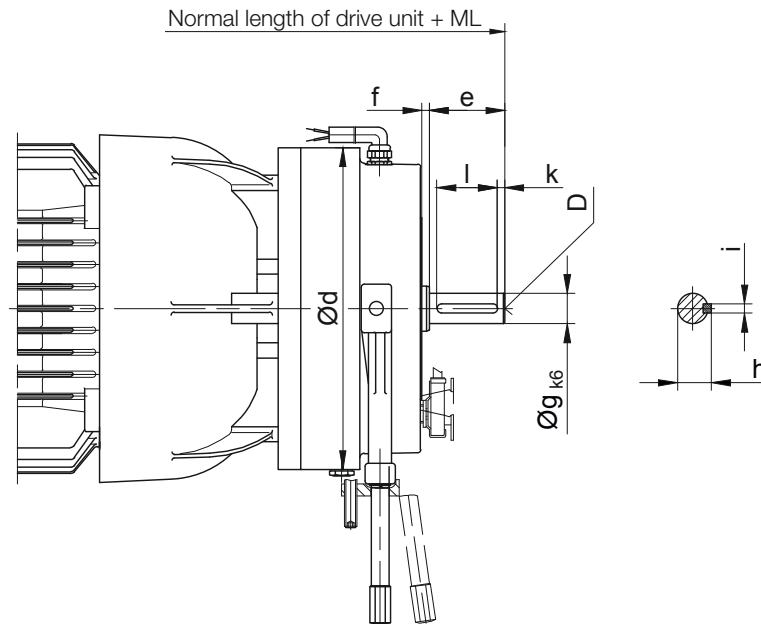
Dimensions

Motor with brake and second shaft end



Motor	Brake	Additional length (mm)		Dimensions (mm)										Centering DIN 332	SW
		ML	ML _{SW}	e	e _{SW}	f	g	g _{SW}	h	h _{SW}	i	k	l		
S..04..	E003	63	-	15	-	5	8	-	-	-	-	-	-	-	-
S..06..				20			10								
S..08..	ES(X)..	121	96*	50	25*	5	18	SW14*	20.5	18*	6	5	40	D6	D4*
S..09..		98	123*				20*	SW14	22.5*	18	6*	5*	40*		
S..11..		153.5*	128	50*	25										
* special design with manual release															

Motor with “heavy duty” brake and second shaft end

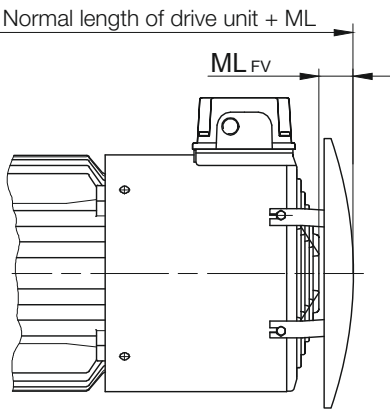
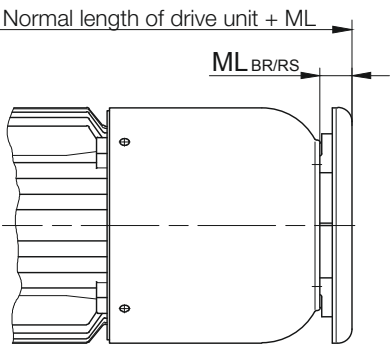
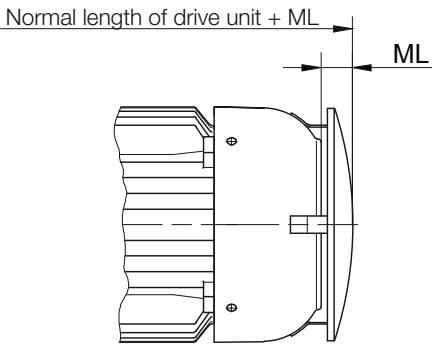


Motor	Brake	ML (mm) Additional length with encoder and brake	Dimensions (mm)								Centering D 332	Additional weight kg
			Ød	e	f	Øg	h	i	k	k		
S..08..	EH(X)027	132	145	50	4	18	20.5	6	5	6	D6	6
S..09..	EH(X)040	144	168		5	20	22.5					9
S..11..	EH(X)125	169	213			20	22.5					20

Motor-mounted components

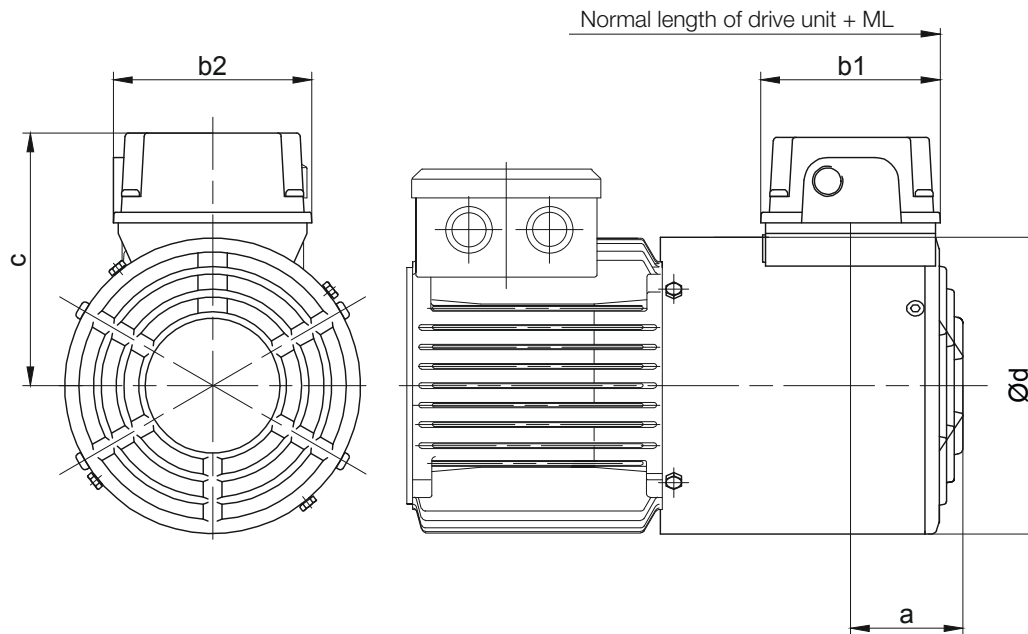
Dimensions

Motor with protective hood



Motor	ML (mm)				Additional weight
	Additional length with attached protective cover				
	ML	ML _{BR}	ML _{RS}	ML _{FV}	kg
S..04..	16	-	-	-	0.15
S..06..	18	-	-	-	0.15
S..08..	14.5	24.5	24.5	40	0.20
S..09..	22	24.5	24.5	30	0.30
S..11..	29	29.5	29.5	33	0.40

Motor with independent fan

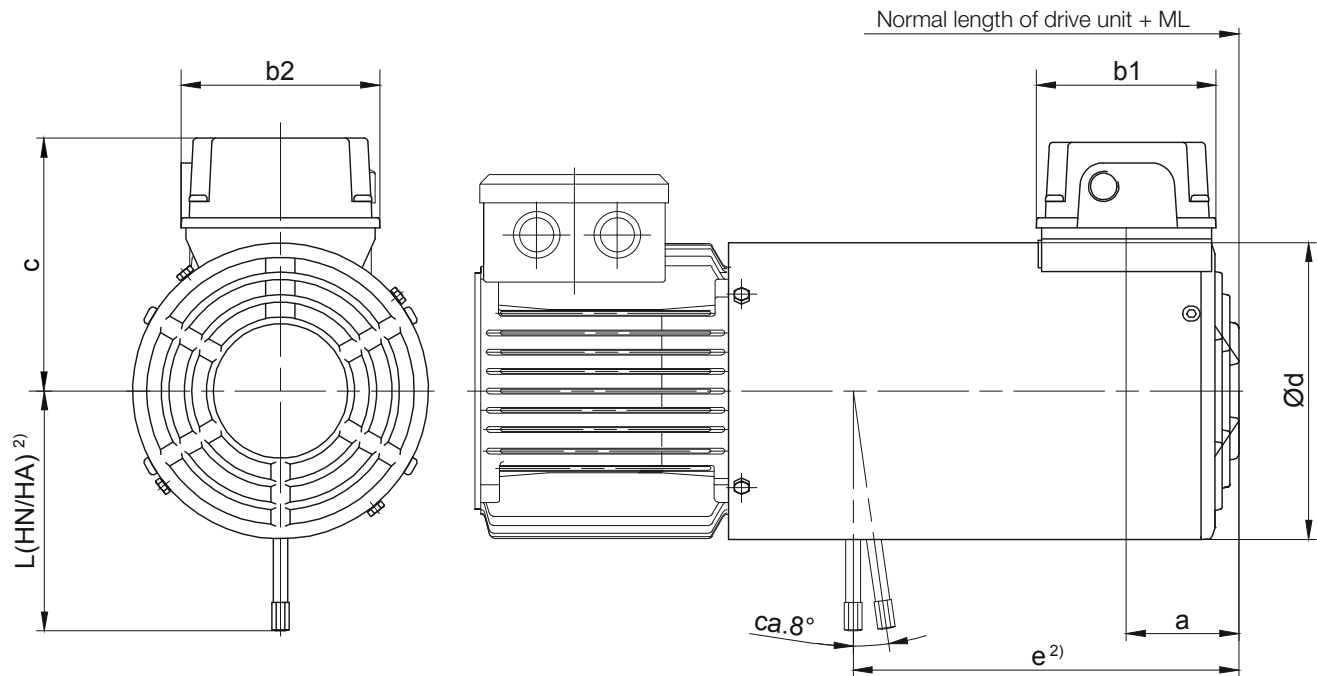


Drive Motor	Fan Motor	kW	r/min	400 V A	ML (mm) Additional length with forced cooling fan	Dimensions (mm)					Additional weight ~kg
						a	b1	b2	c	d	
S..08..	FV D08	0.019	2670	0.029	92	69.5	107	105	134	157	2.2
S..09..	FV D09	0.046	2820	0.106	97	69.5	107	105	143	177	2.7
S..11..	FV D11	0.051	2660	0.110	97	79.5	107	105	162.5	219	3.2

Motor-mounted components

Dimensions

Motor with brake and independent fan



Motor	Brake	ML (mm) ¹⁾ Additional length with brake and forced ventilation	Dimensions (mm)							Additional weight ~kg
			a	b1	b2	c	Ød	e ²⁾	L(HA/HN) ²⁾	
S..08..	ES(X)010	202	59	107	105	134	157	204	132	5.0
S..09..	ES(X)010	214	69.5	107	105	143	177	220	132	5.5
	ES(X)027							212	162	7.5
S..11*	ES(X)027	221	69.5	107	105	162.5	219	226	162	8.0
	ES(X)040							223	172	10
	ES(X)070							218	184	12

* with bayonet joint

¹⁾ The additional length is for normal motor unit without brake.

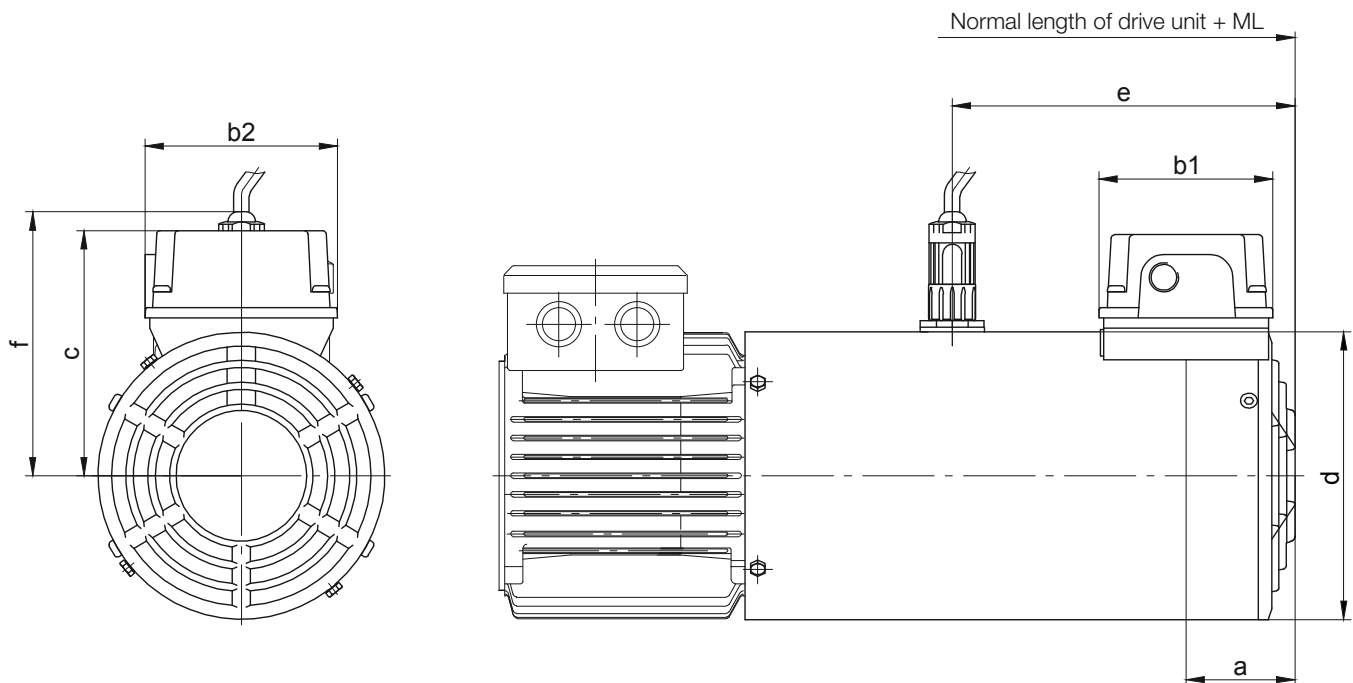
Other dimensions see the appropriate normal dimensioned sketch.

²⁾ Brake release on request

HA = manual release lockable

HN = manual release not lockable

Motor with encoder and built-on independent fan



Motor	ML (mm) ¹⁾ Additional length with encoder and forced ventilation	Dimensions (mm)							Additional weight ~kg
		a	b1	b2	c	d	e	f	
S..08..	202	59	107	105	134	157	187	144	2.6
S..09..	214	69.5	107	105	143	177	192	153.5	3.3
S..11*	221	69.5	107	105	162.5	218	192	-	4.0

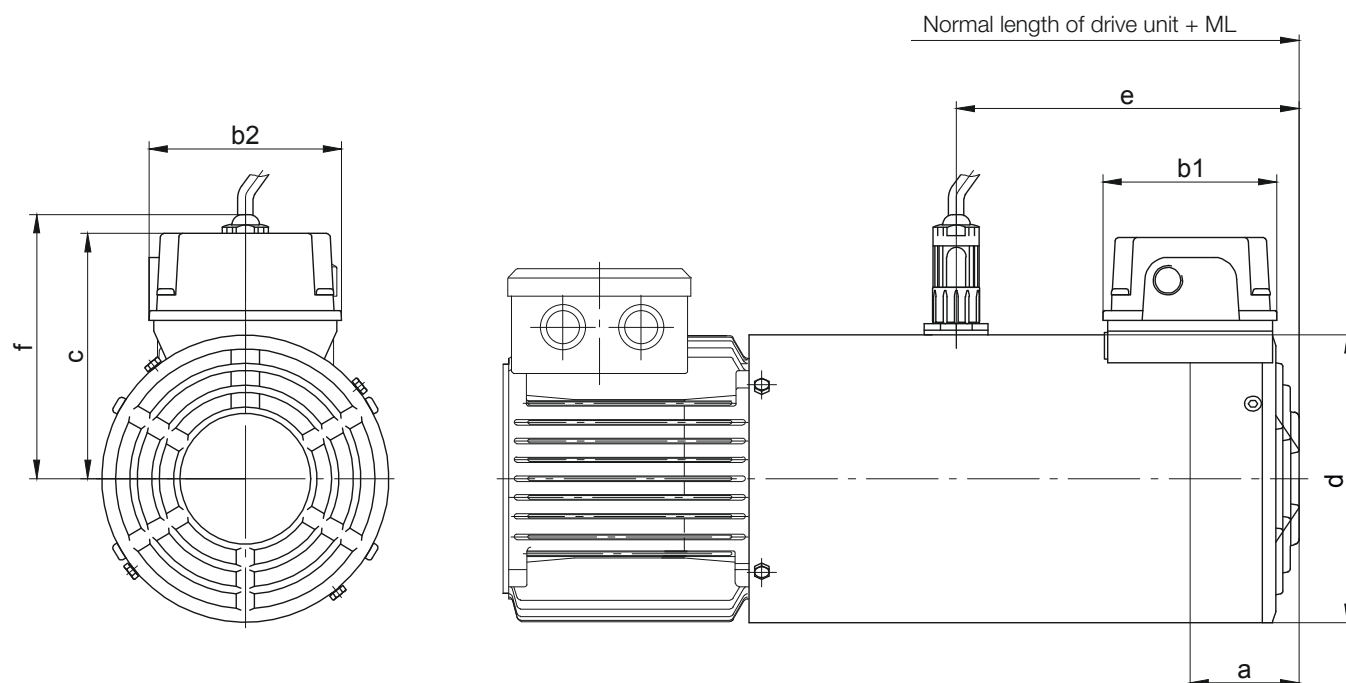
* with bayonet joint

¹⁾ The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch.

Motor-mounted components

Dimensions

Motor with brake and encoder with built-on independent fan



Motor	Brake	ML (mm) ¹⁾ Additional length with brake, encoder and forced ventilation	Dimensions (mm)									Additional weight ~kg
			a	b1	b2	c	Ød	e ²⁾	g	h	L(HA/HN) ²⁾	
S..08..	ES(X)010	202	59	107	105	134	157	204	150	150	132	6.0
S..09..	ES(X)010	214	69.5	107	105	143	177	220	160	160	132	6.5
	ES(X)027							212	160		162	8.5
S..11*	ES(X)027	221	69.5	107	105	162.5	219	226	155	175	162	9.0
	ES(X)040							223	155		172	11.5
	ES(X)070							218	155		184	13.5

* with bayonet joint

¹⁾ The additional length is for normal motor unit without brake.

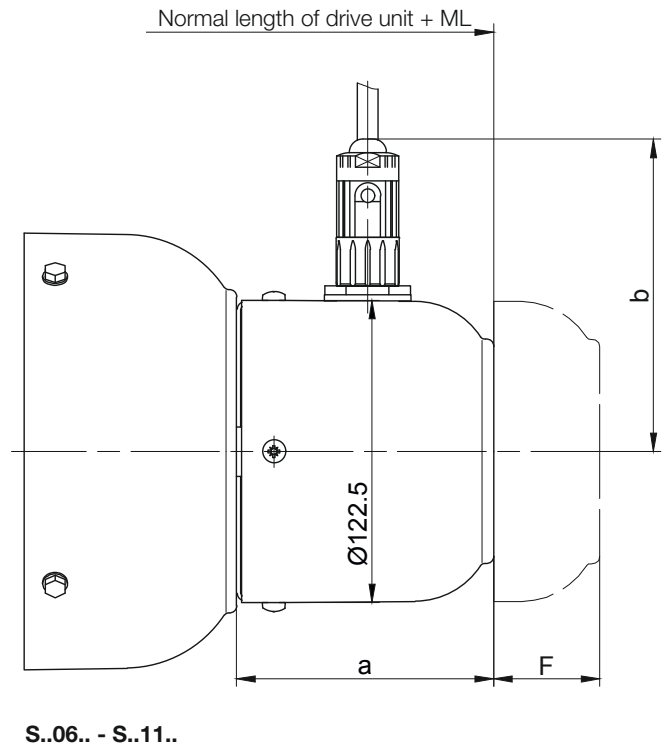
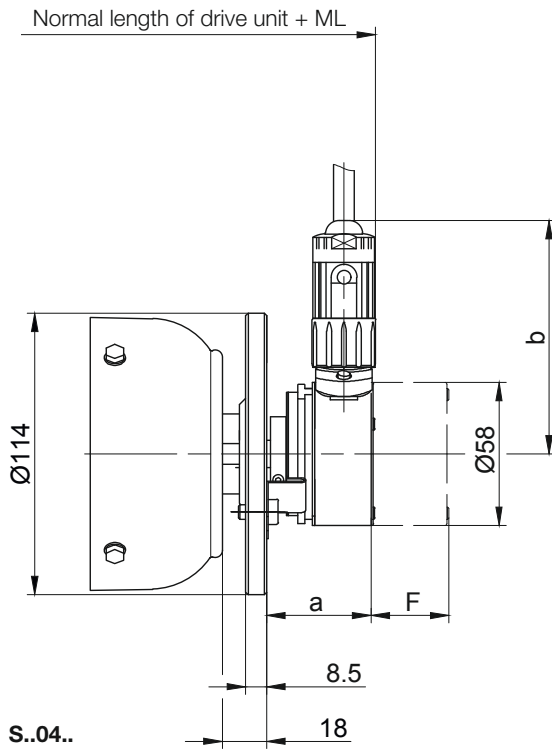
Other dimensions see the appropriate normal dimensioned sketch.

²⁾ Brake release on request

HA = manual release lockable

HN = manual release not lockable

Motor with encoder

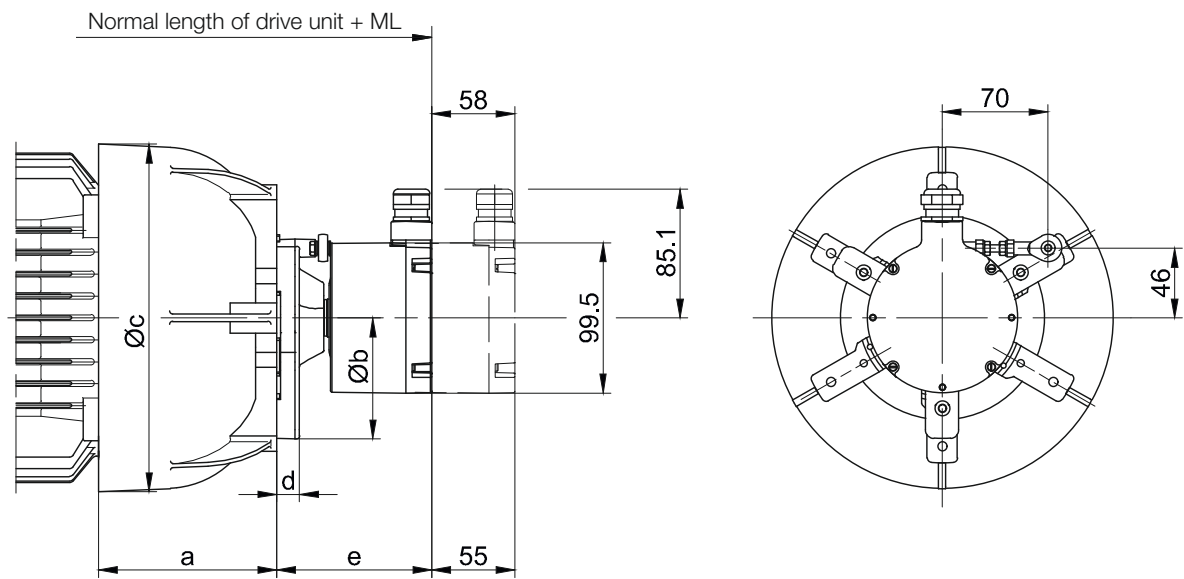


Motor	ML (mm) Additional length with encoder	Dimensions (mm)				Additional weight kg	Free space for removing encoder „F“			
		Incremental encoder		Absolute encoder			Incremental encoder	Absolute encoder		
		a	c	a	b					
S..04..	62.5	43.5	95	69.5	109.5	0.7	30	55		
S..06..	103	98.5	127	98.5	127	0.9	63	88		
S..08..	107	107.5		107.5			41	66		
S..09..		104		104		0.8	43	68		
S..11..										

Motor-mounted components

Dimensions

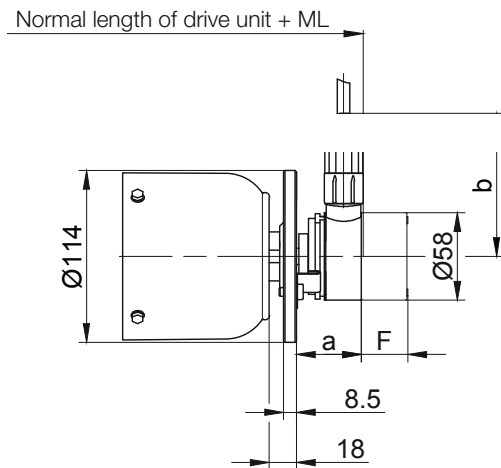
Motor with “heavy duty” encoder



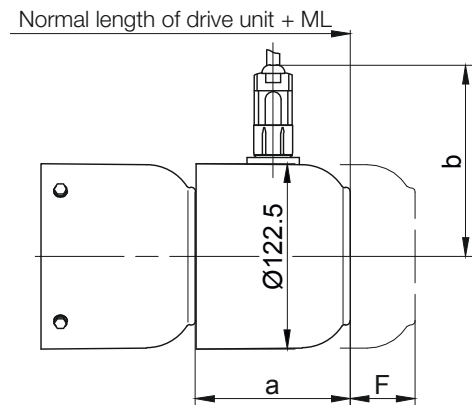
Motor	ML (mm) Additional length with encoder	Dimensions (mm)					Additional weight kg
		a	b	c	d	e	
S..08..	114	83.5	160	166	15	102.5	2
S..09..	118.5	102		191			
S..11..	121.5	120		231			5.4

Motor with brake and encoder

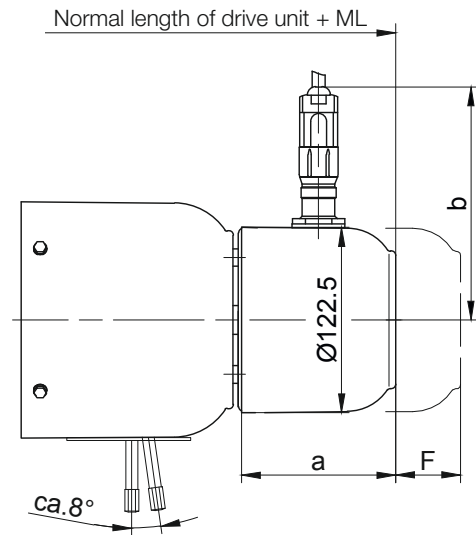
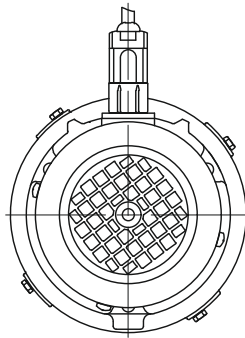
S..04..



S..06..



S..08.. - S..11..

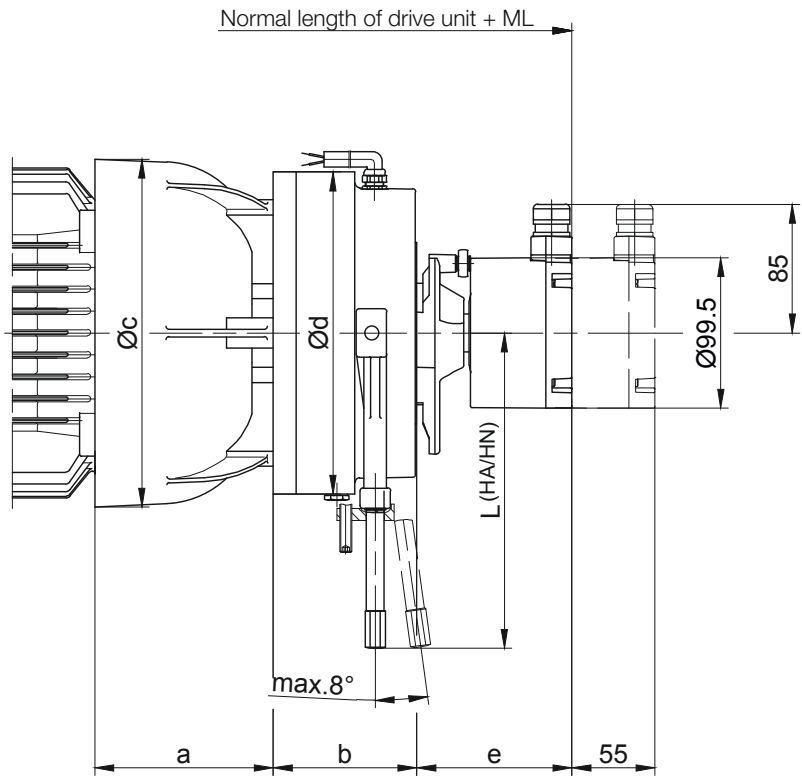


Motor	Brake	ML (mm) Additional length with brake and encoder	Dimensions (mm)				Additional weight kg	Free space for removing encoder „F“	
			Incremental encoder		Absolute en- coder			Incremental en- coder	Absolute encoder
			a	c	a	b			
S..04..	E003	105.5	43.5	95	69.5	109.5	0.7	30	55
S..06..		145	102	127	102	127	0.9	63	88
S..08..	ES(X)..	173.5					0.8	49	74
S..09..	ES(X)..	197							
S..11..	ES(X)..	200							

Motor-mounted components

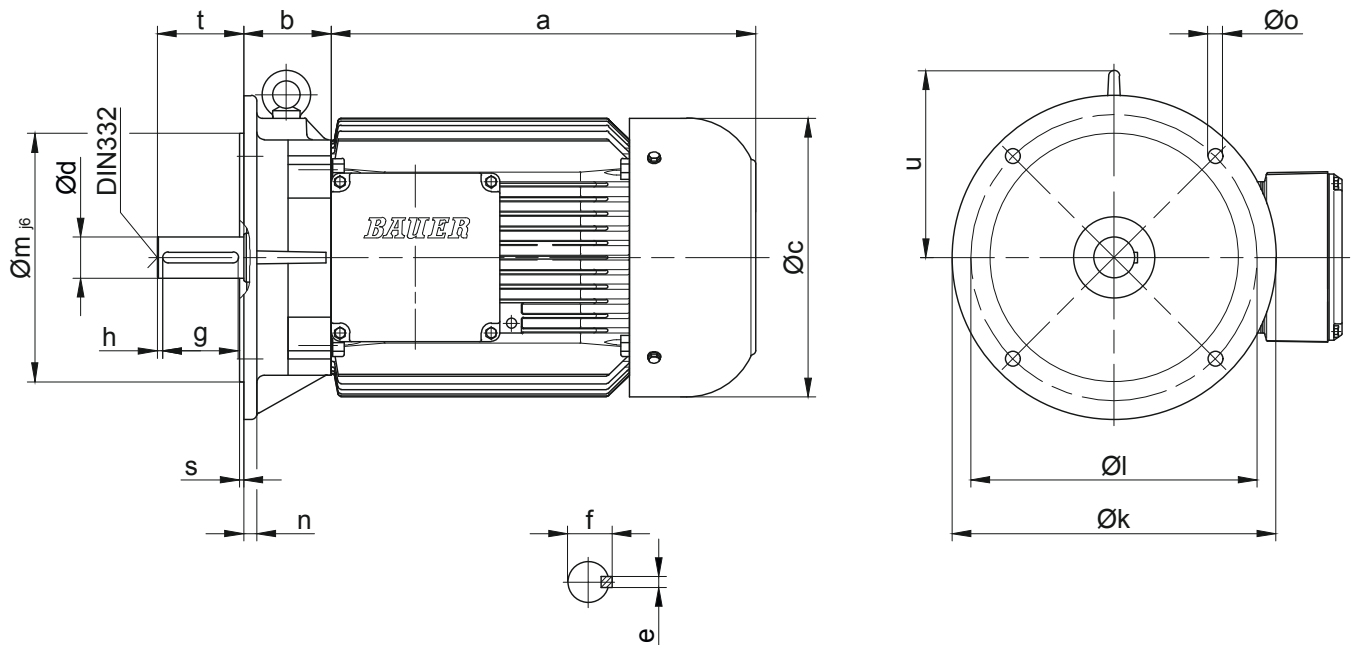
Dimensions

Motor with “heavy duty” brake and encoder



Motor	Brake	ML (mm) Additional length with brake and encoder	Dimensions (mm)						Additional weight kg
			a	b	c	Ød	e	L (HA/HN)	
S..08..	EH(X)027	180.5	83.5	66.5	166	145	102.5	162	7.1
S..09..	EH(X)040	191.5	102	73	191	168		172	10
S..11..	EH(X)125	216.5	120	95	231	213		208.5	21.4
HA = manual release lockable HN = manual release not lockable									

Motor in IEC design



Motor	Dimensions (mm)																Centering DIN 332
	a	b	c	d	e	f	g	h	k	l	m	n	o	s	t	u	
S..06..	170	45	123	11 _{js}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
S..08..	200	49	156	19 _{js}	6	21.5	35	2.5	200	165	130	10	12	3.5	40	-	D4
S..09..	251	66	176	24 _{js}	8	27	40	5	200	165	130	10	12	3.5	50	128.5	D6
S..11..	319	75	218	28 _{js}	8	31	50	5	250	215	180	11	14.5	4	60	145.5	D10

