

**Product
Extension**
Integral Motors
upto 45kW

NEW



Technical Data

The BAUER geared motor range will be extended in integral design up to **45kW** with the motor frame sizes **D20 and D22**. The new **integral motor connection** makes the geared motors not only **shorter** but also **lighter** which in turn is a major advantage for the customer machine.

Power [kW]	Motor Type		
	IE1	IE2	IE3
30	DSE18XB4	DHE20LA4*	DPE20LA4
37	DSE22SA4*	DHE22SA4*	DPE22SA4
45	DSE22MA4*	DHE22MA4 *	DPE22MA4

* IE1 and IE2 on request

4 pole IE3 motors for continuous operation S1

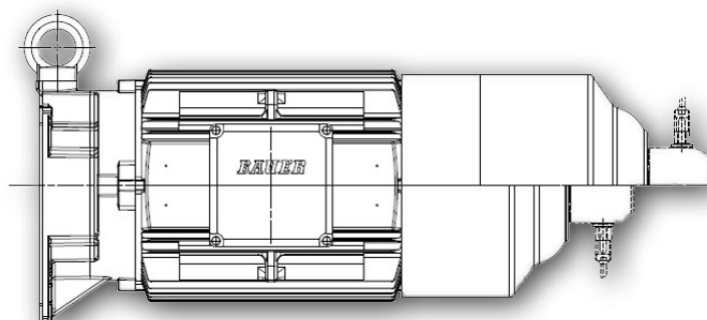
Mains voltage 400V

Mains frequency 50Hz

P	Type	n	M _N	I _N		cosphi	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	η (100% Load) %	η (75% Load) %
kW		1/min	Nm	A							kgm ²		
30	DPE20LA4	1480	195	54	D	0,87	8,7	2,8	1,9	3,2	0,27	93,6	93,6
37	DPE22SA4	1480	240	65	D	0,88	8,8	3,1	2,1	3,6	0,288	93,9	93,9
45	DPE22MA4	1480	283	81	D	0,85	9,2	3,1	2,2	3,9	0,343	94,2	94,1

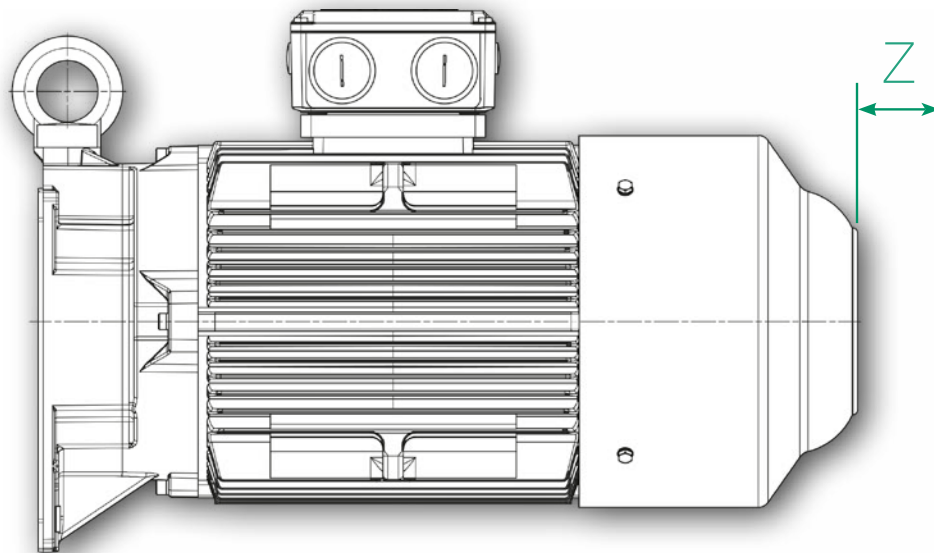
Configurable additional designs

- Motor Protection (Thermistor)
- Brake
- Encoder
- Backstop
- Forced Cooling
- 2nd Motor Shaft Extension

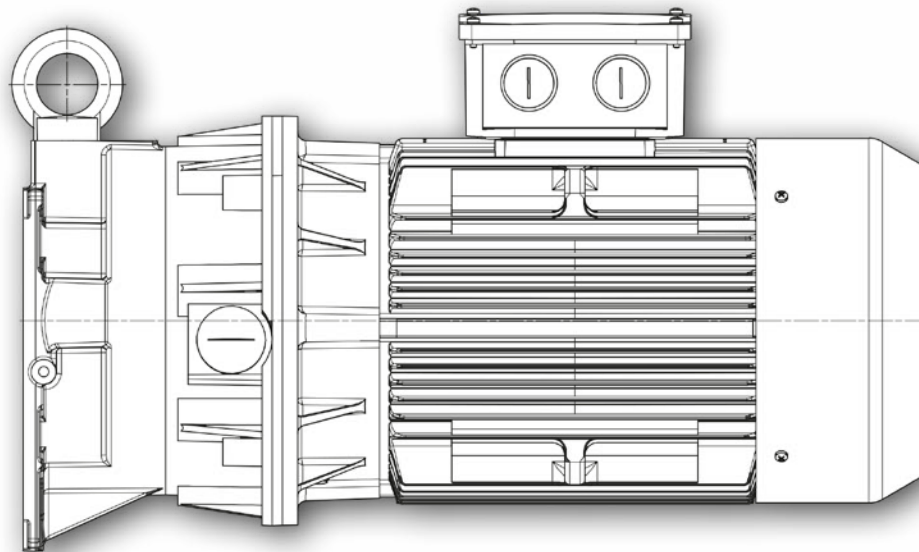


Length Comparison

INTEGRAL



C/IEC



Motor Frame Size	Reduction in length from C/IEC to integral design Z [mm]
D..20LA4	81,5
D..22SA4	107
D..22MA4	175

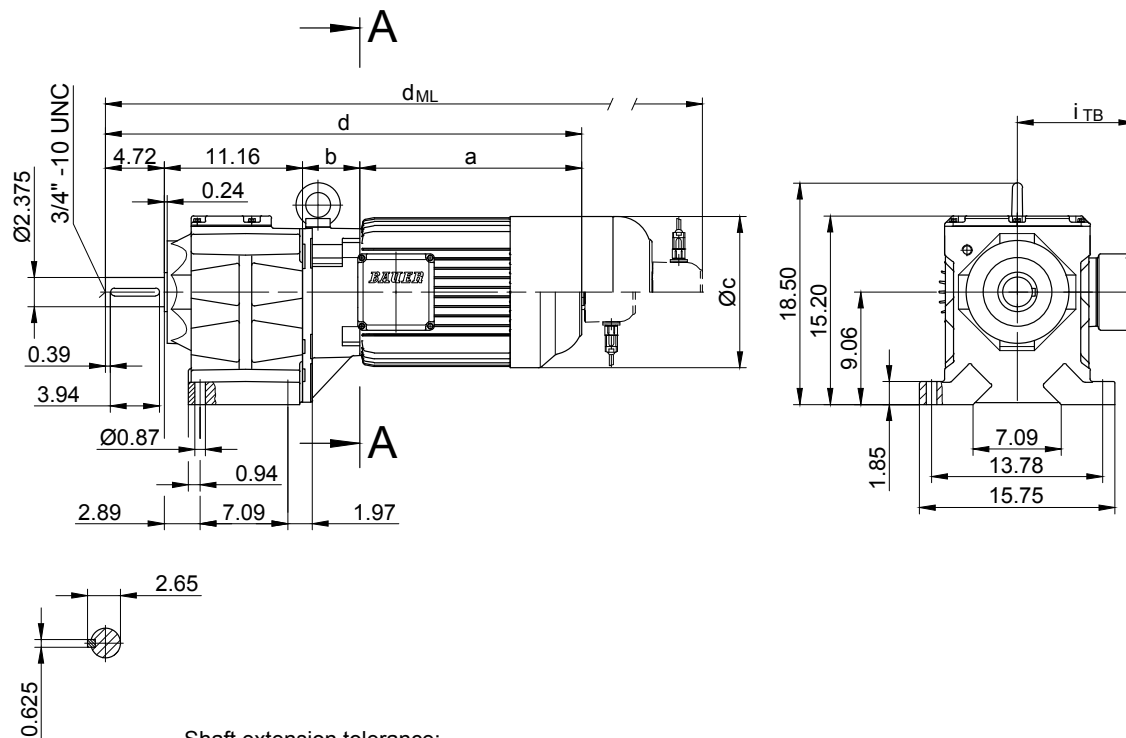
Helical Geared Motors Series BG

BG70 -BG70Z

Dimension Sheet

Foot mounting with clearance holes

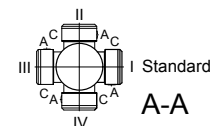
Code -11/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG70(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	13.780	11.811	9.843	0.787	0.689	12.362	0.197	4.724	d+1.181	d _{ML} +1.181
small -27/	11.811	10.433	9.055	0.787	0.532	12.677	0.157	4.409	d+1.181	d _{ML} +1.181



Type	a	b	c	d	Design with motor extensions				
					i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG70Z-../D..08..	7.87	7.95	6.14	31.71	5.37	34.31	35.93	38.54	34.31
BG70-../D..09..	9.88	3.29	7.13	29.06	6.22	32.72	33.27	36.83	32.72
BG70Z-../D..09..	9.88	8.52	7.13	34.29	6.22	37.95	38.50	42.07	37.95
BG70-../D..11..	12.56	3.54	8.98	31.99	7.17	35.58	36.20	39.96	35.58
BG70Z-../D..11..	12.56	8.78	8.98	37.22	7.17	41.08	41.44	45.20	41.08
BG70-../D..13..	15.47	4.06	10.16	35.41	8.54	39.78	39.63	43.90	39.78
BG70Z-../D..13..	15.47	9.29	10.16	40.65	8.54	45.02	44.86	49.13	45.02
BG70-../D..16..	17.89	4.61	12.21	38.39	9.57	44.04	42.60	48.13	44.04
BG70Z-../D..16..	17.89	9.84	12.21	43.62	9.57	49.27	47.83	53.37	49.27
BG70-../D..18..	21.34	5.47	13.70	42.70	11.34	48.58	46.91	52.68	48.58
BG70Z-../D..18..	21.34	10.71	13.70	47.93	11.34	53.82	52.15	57.91	53.82
BG70-../D..20L	25.34	6.14	14.29	47.36	11.95	47.36	52.38	56.56	52.38
BG70-../D..22S	27.70	6.14	14.29	49.72	11.95	54.74	53.90	58.92	54.74

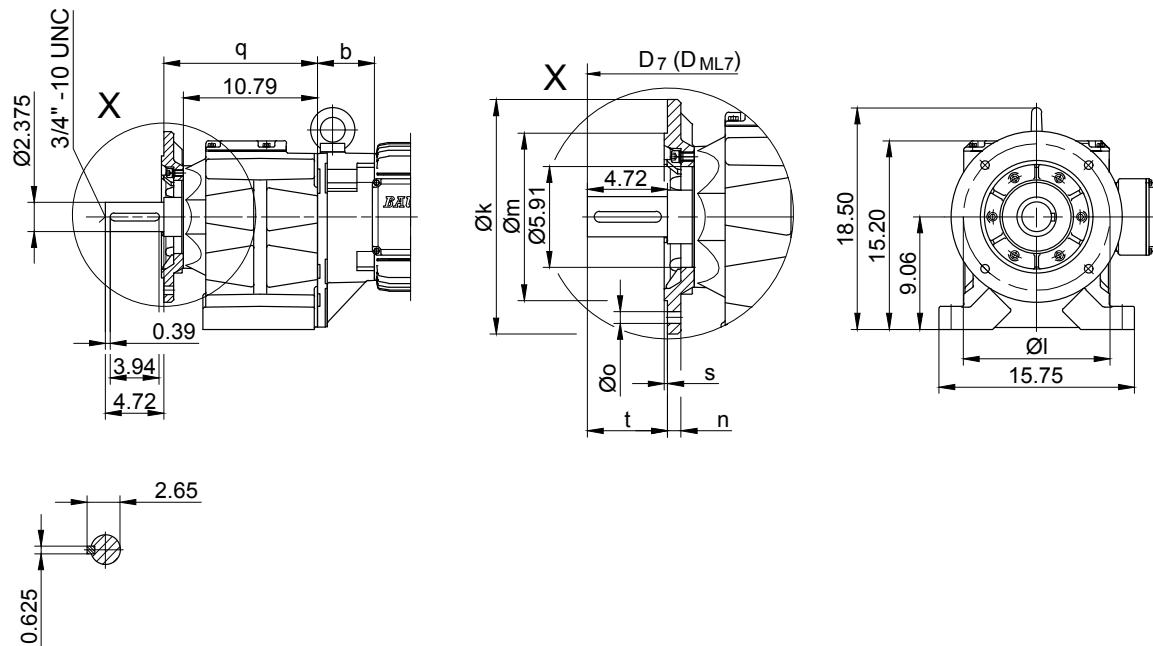
Helical Geared Motors Series BG

BG70 -BG70Z

Dimension Sheet

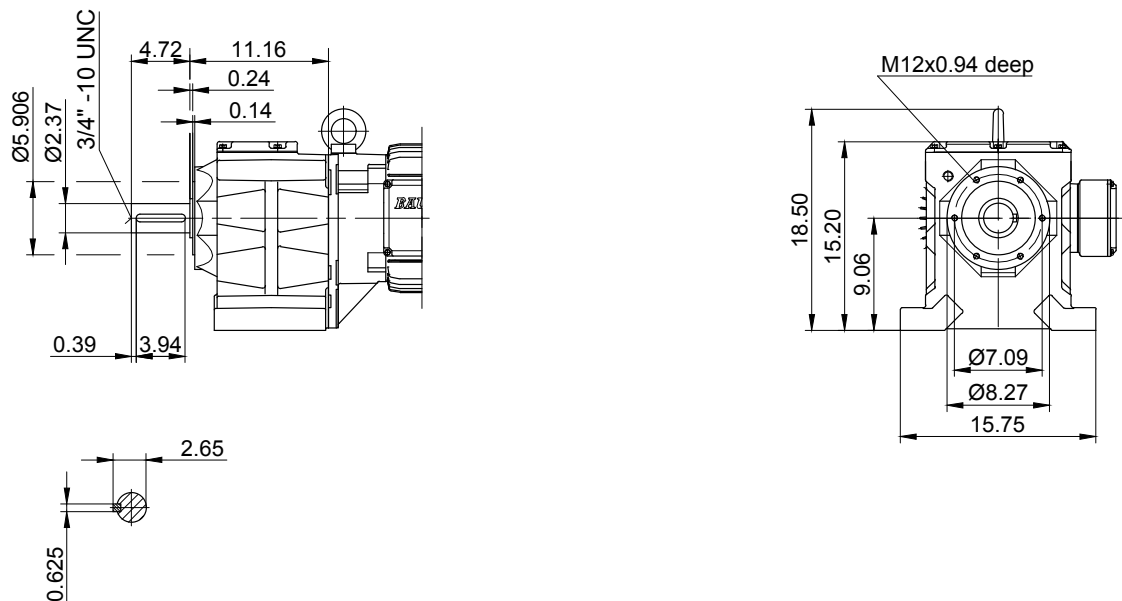
Flange with clearance holes

Code -37/
(Code -27/)



Flange with tapped holes

Code -71/



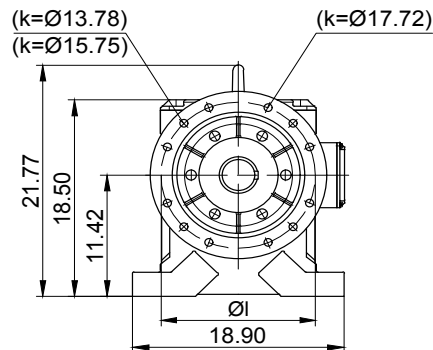
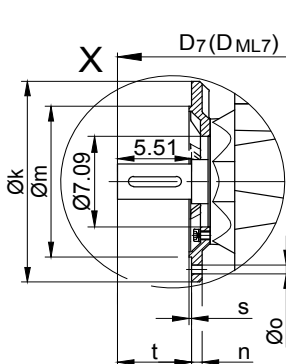
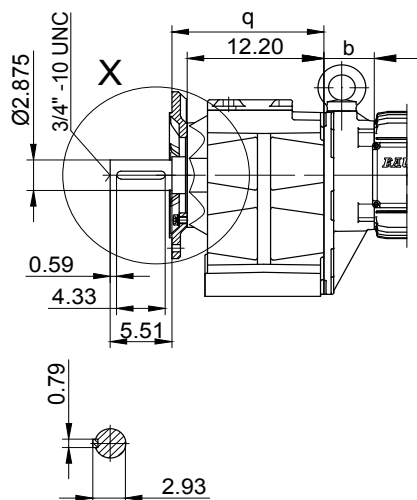
Helical Geared Motors Series BG

BG80 -BG80Z

Dimension Sheet

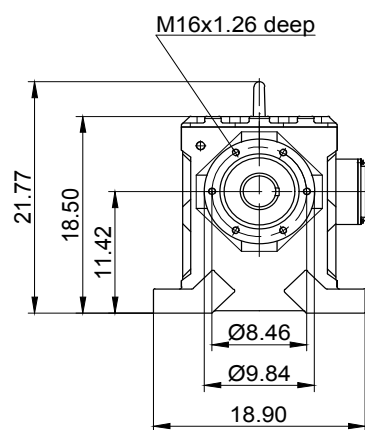
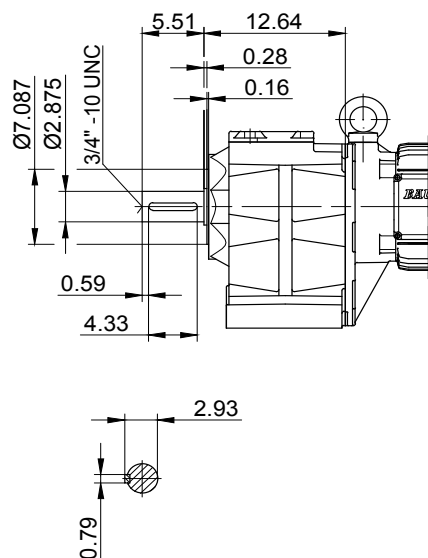
Flange with clearance holes

Code -37/
(Code -27/)
(Code -47/)



Flange with tapped holes

Code -71/



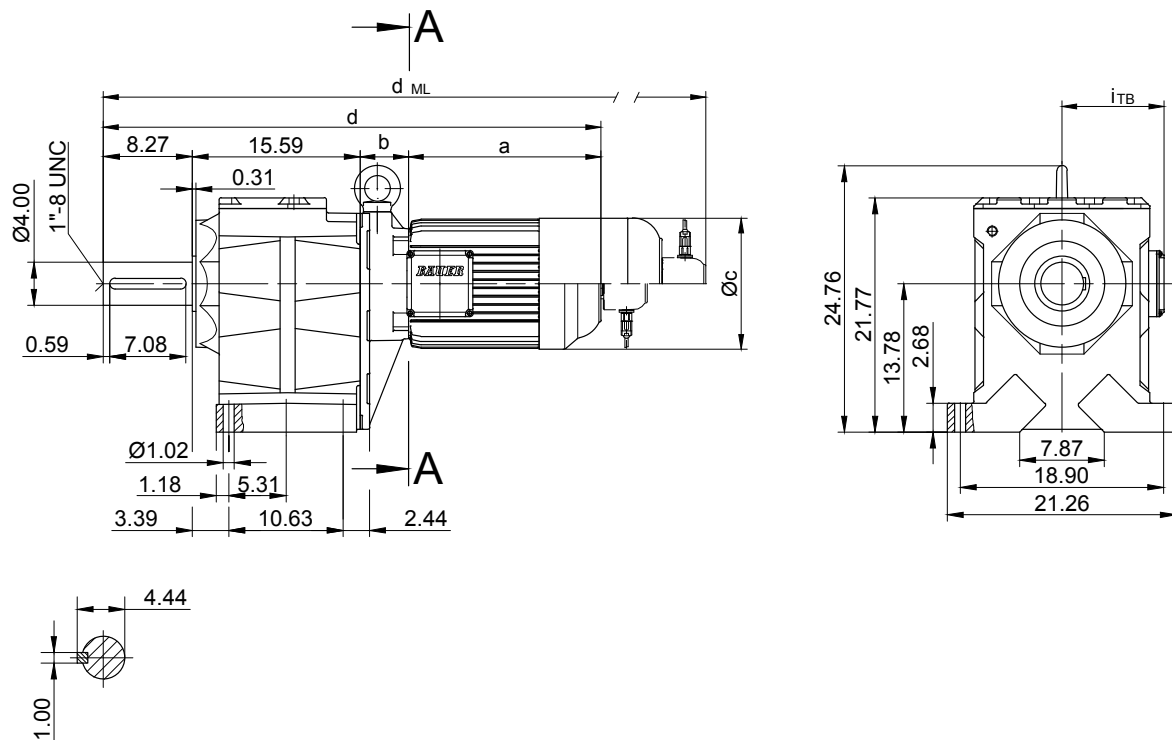
Helical Geared Motors Series BG

BG90 -BG90Z

Dimension Sheet

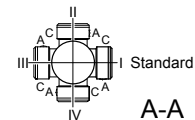
Foot mounting with clearance holes

Code -11/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions



BG90(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	17.717	15.748	13.780	0.866	0.689	17.283	0.197	7.874	d+1.693	d _{ML} +1.693
big -47/	21.654	19.685	17.717	0.866	0.689	17.480	0.197	7.677	d+1.693	d _{ML} +1.693

Type	a	b	c	d	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG90Z-../D..09..	9.88	10.51	7.13	43.86	6.22	47.52	48.07	51.63	47.52
BG90Z-../D..11..	12.56	10.77	8.98	46.79	7.17	50.65	51.00	54.67	50.65
BG90-../D..13..	15.47	3.94	10.16	42.87	8.54	47.24	47.09	51.22	47.24
BG90Z-../D..13..	15.47	11.28	10.16	50.22	8.54	54.59	54.43	58.56	54.59
BG90-../D..16..	17.89	4.49	12.21	45.85	9.57	51.50	50.06	55.59	51.50
BG90Z-../D..16..	17.89	11.83	12.21	53.19	9.57	58.84	57.40	62.93	58.84
BG90-../D..18..	21.34	5.35	13.70	50.16	11.34	56.04	54.37	60.14	56.04
BG90Z-../D..18..	21.34	12.70	13.70	57.50	11.34	63.39	61.71	67.48	63.39
BG90-../D..20L	25.34	6.02	14.29	54.82	11.95	59.84	59.00	64.02	59.84
BG90-../D..22S	27.70	6.02	14.29	57.19	11.95	62.20	61.36	66.38	62.20
BG90-../D..22M	27.70	6.02	14.29	57.19	11.95	62.20	61.36	66.38	62.20

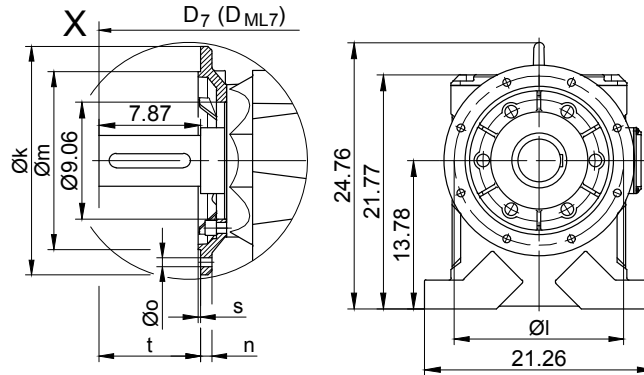
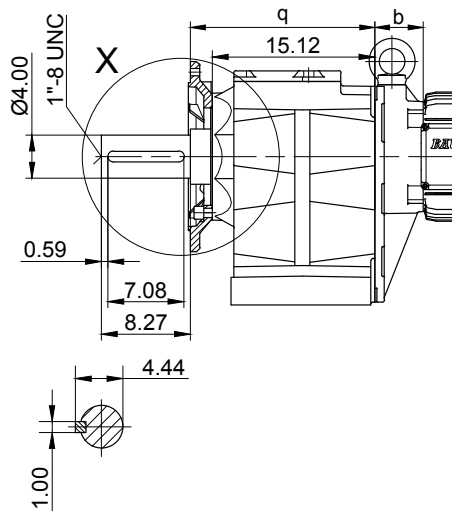
Helical Geared Motors Series BG

BG90 -BG90Z

Dimension Sheet

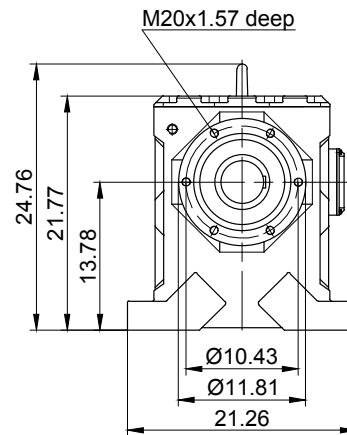
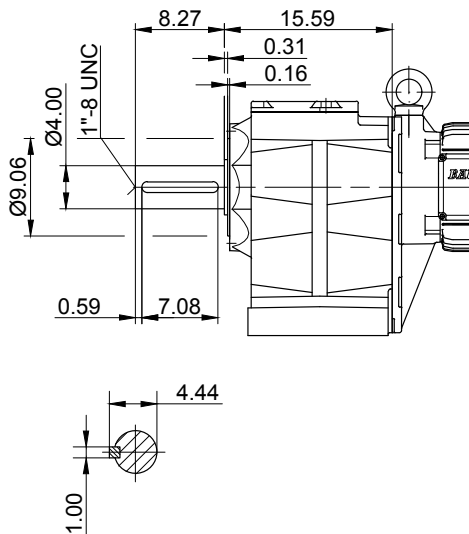
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code -71/



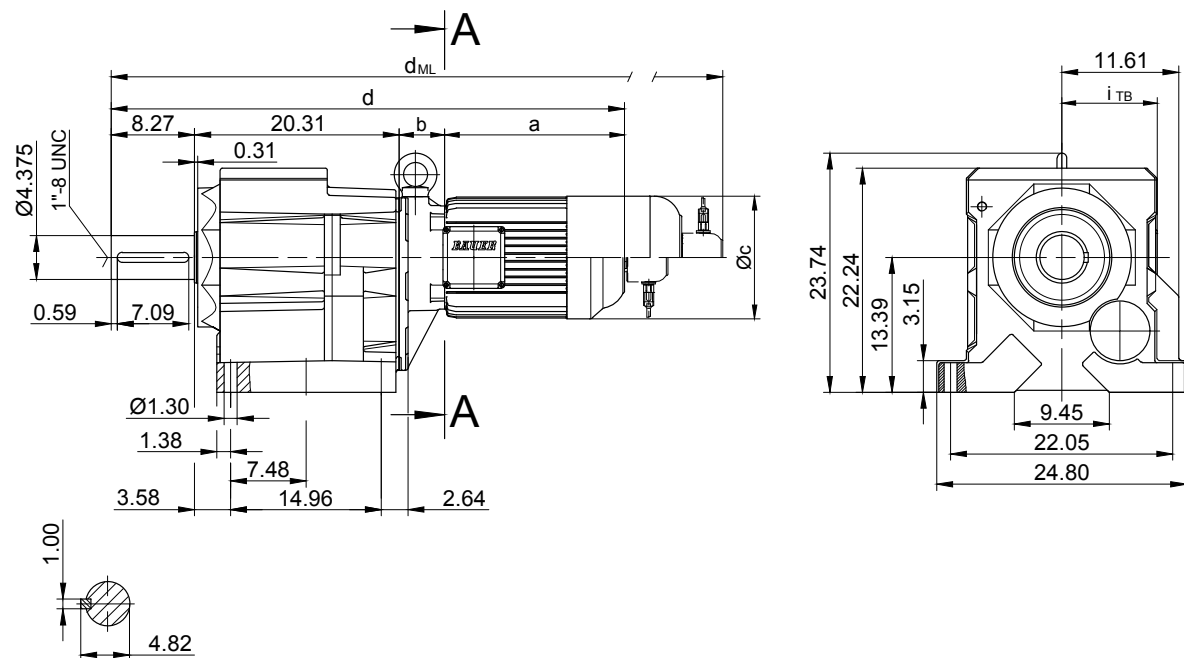
Helical Geared Motors Series BG

BG100 -BG100Z

Dimension Sheet

Foot mounting with clearance holes

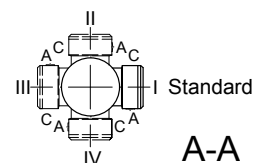
Code -11/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG100(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	21.654	19.685	17.717	0.866	0.689	21.969	0.197	8.661	d+1.654	d _{ML} +1.654
big -47/	25.984	23.622	21.654	0.984	0.866	21.732	0.236	8.898	d+1.654	d _{ML} +1.654



A-A

Type	a	b	c	d	Design with motor extensions				
					i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
BG100Z-../D..09..	9.88	9.94	7.13	48.80	6.22	52.46	53.01	56.57	52.46
BG100-../D..11..	12.56	3.43	8.98	44.96	7.17	48.82	49.17	52.93	48.82
BG100Z-../D..11..	12.56	10.20	8.98	51.73	7.17	55.59	55.94	59.70	55.59
BG100-../D..13..	15.47	3.94	10.16	48.39	8.54	52.76	52.60	56.87	52.76
BG100Z-../D..13..	15.47	10.71	10.16	55.16	8.54	59.53	59.37	63.64	59.53
BG100-../D..16..	17.89	4.49	12.21	51.36	9.57	57.01	55.57	61.10	57.01
BG100Z-../D..16..	17.89	11.26	12.21	58.13	9.57	63.78	62.34	67.87	63.78
BG100-../D..18..	21.34	5.35	13.70	55.67	11.34	61.56	59.88	65.65	61.56
BG100Z-../D..18..	21.34	12.13	13.70	62.44	11.34	68.33	66.65	72.42	68.33
BG100-../D..20L	25.33	6.02	14.29	60.33	11.95	65.35	64.51	69.53	65.35
BG100-../D..22S	27.70	6.02	14.29	62.70	11.95	67.72	66.87	71.89	67.72
BG100-../D..22M	27.70	6.02	14.29	62.70	11.95	67.72	66.87	71.89	67.72

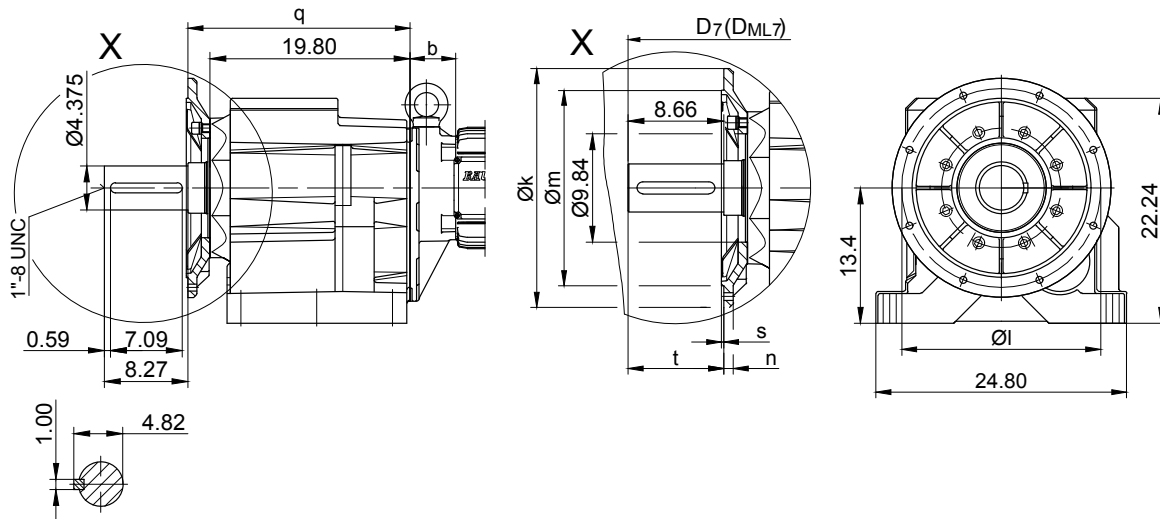
Helical Geared Motors Series BG

BG100 -BG100Z

Dimension Sheet

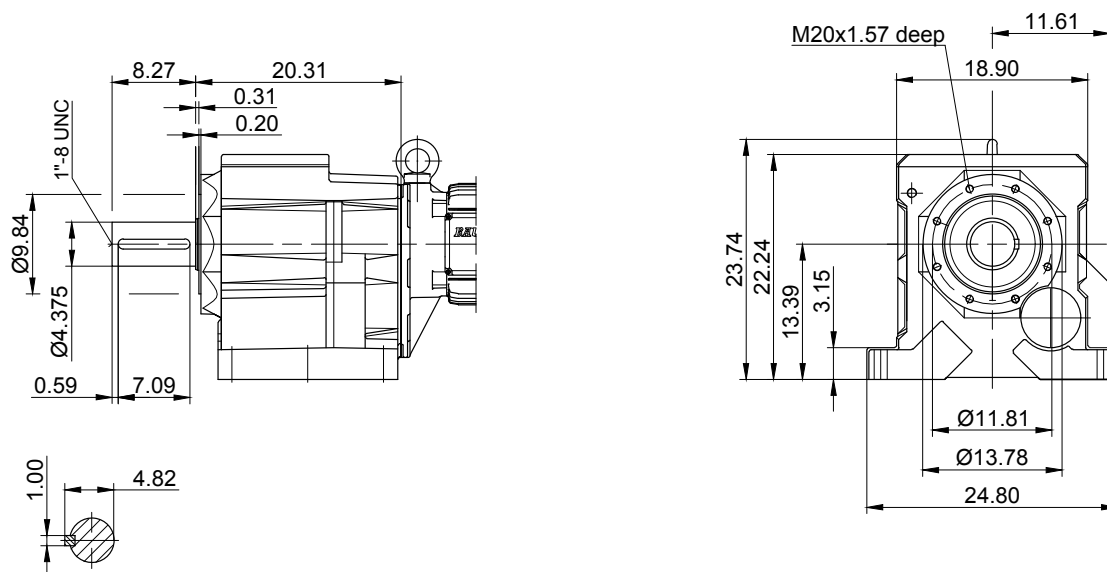
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code 71/



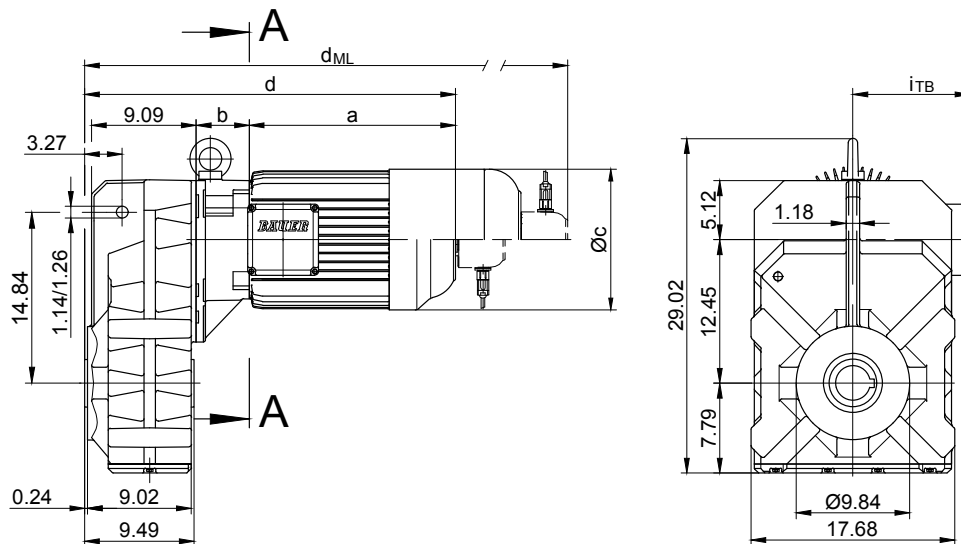
Parallel Shaft Geared Motors Series BF

BF70 -BF70Z

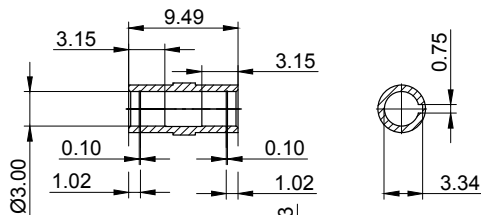
Dimension Sheet

With torque arm

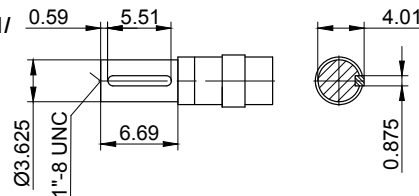
Code -0./



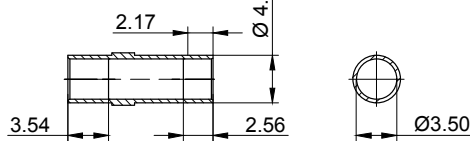
Code -4./



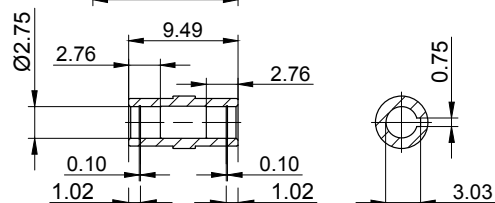
Code -1./



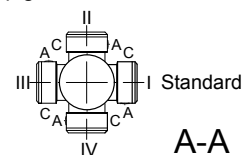
Code -5./



Code -4/K70



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

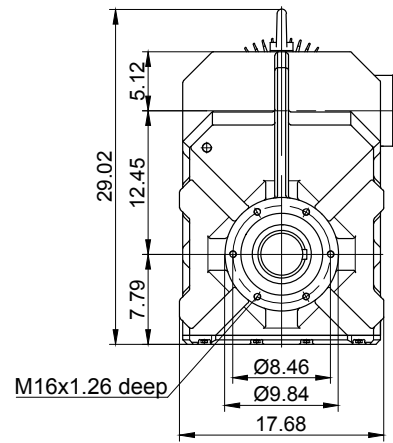
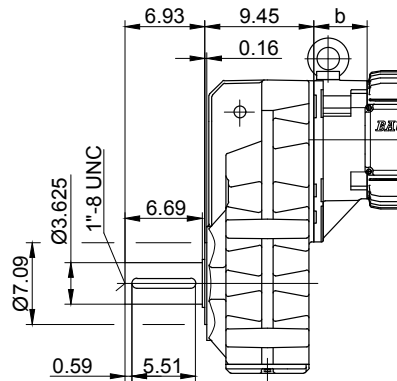


Type	a	b	c	d	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF70Z-../D..08..	7.87	7.95	6.14	25.51	5.37	28.11	29.72	32.34	28.11
BF70-../D..09..	9.88	3.29	7.13	22.85	6.22	26.52	27.07	30.63	26.52
BF70Z-../D..09..	9.88	8.52	7.13	28.09	6.22	31.75	32.30	35.87	31.75
BF70-../D..11..	12.56	3.54	8.98	25.79	7.17	29.65	30.00	33.76	29.65
BF70Z-../D..11..	12.56	8.78	8.98	31.02	7.17	34.88	35.24	39.00	34.88
BF70-../D..13..	15.47	4.06	10.16	29.21	8.54	33.58	33.43	37.70	33.58
BF70Z-../D..13..	15.47	9.29	10.16	34.45	8.54	38.82	38.66	42.93	38.82
BF70-../D..16..	17.89	4.61	12.21	32.19	9.57	37.83	36.40	41.91	37.83
BF70Z-../D..16..	17.89	9.84	12.21	37.42	9.57	43.07	41.63	47.17	43.07
BF70-../D..18..	21.34	5.47	13.70	36.50	11.34	42.38	40.71	46.48	42.38
BF70Z-../D..18..	21.34	10.71	13.70	41.73	11.34	47.62	45.94	51.71	47.62
BF70-../D..20L	25.33	6.14	14.29	41.16	11.95	46.18	45.33	50.35	46.18
BF70-../D..22S	27.70	6.14	14.29	43.52	11.95	48.54	47.70	52.72	48.54

Parallel Shaft Geared Motors Series BF

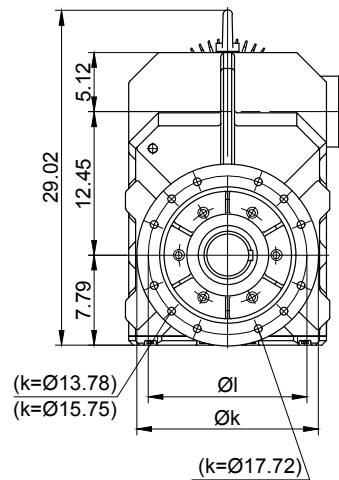
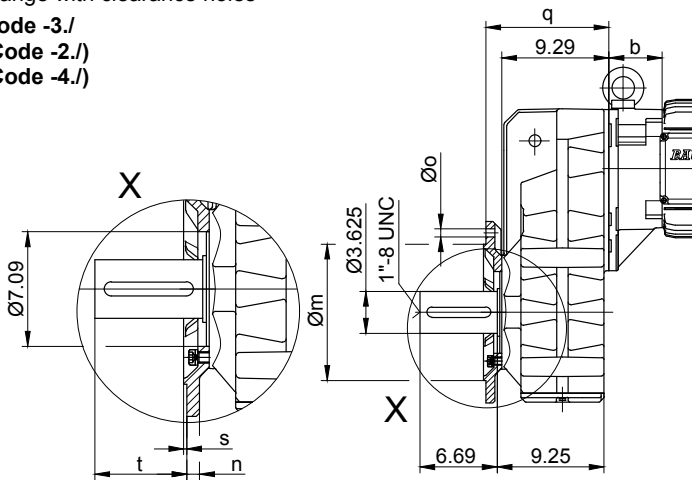
Dimension Sheet

BF70 -BF70Z



Flange with clearance holes

Code -3./
(Code -2./)
(Code -4./)

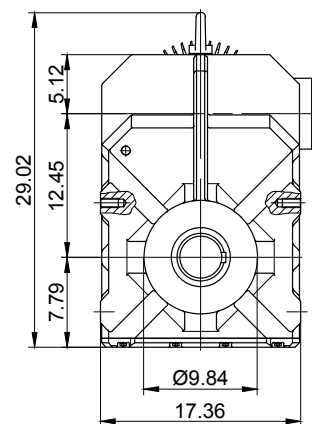
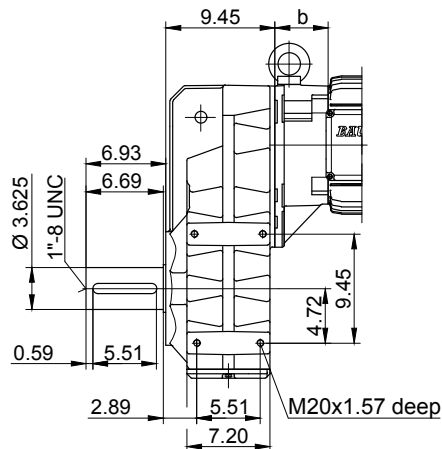


Flange dimensions

BF70(Z)	k	l	m	n	o	q	s	t
Standard -3./	15.748	13.780	11.811	0.787	4xØ0.714	10.669	0.197	6.102
small -2./	13.780	11.811	9.843	0.787	4xØ0.714	10.669	0.197	6.102
big -4./	17.717	15.748	13.780	0.866	8xØ0.714	11.063	0.197	5.709

Foot with tapped holes left and right

Code -6.LR/



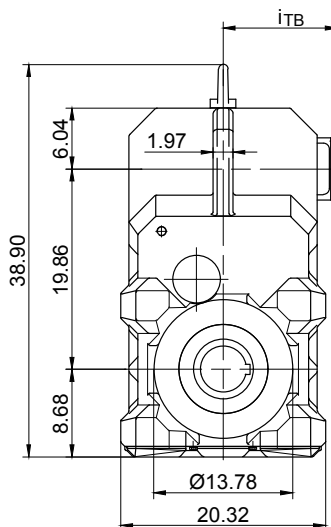
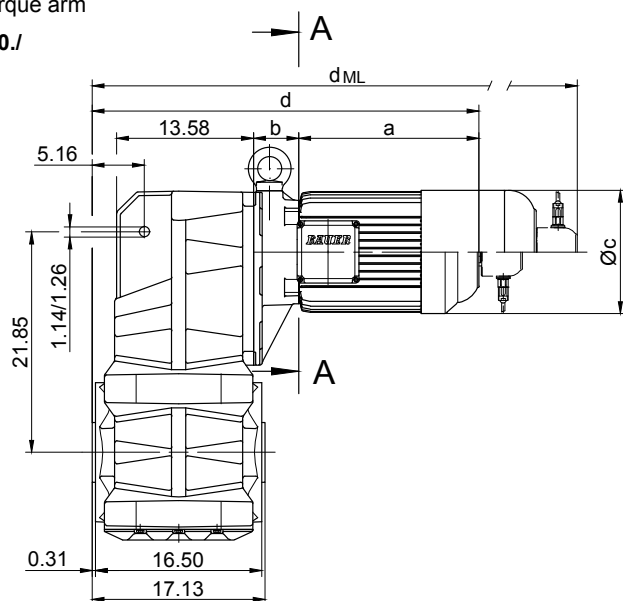
Parallel Shaft Geared Motors Series BF

BF90 -BF90Z

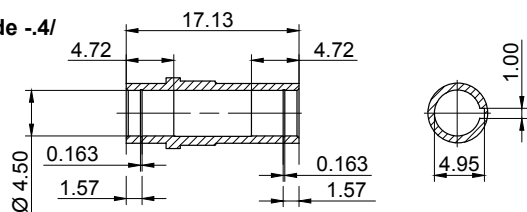
Dimension Sheet

With torque arm

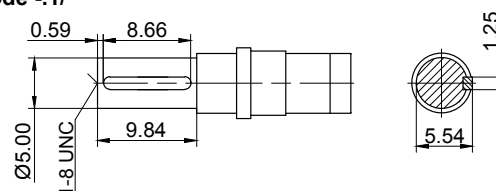
Code -0./



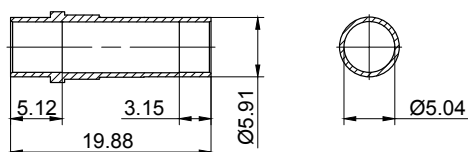
Code -4./



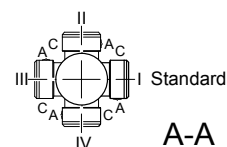
Code -1/



Code -5/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in



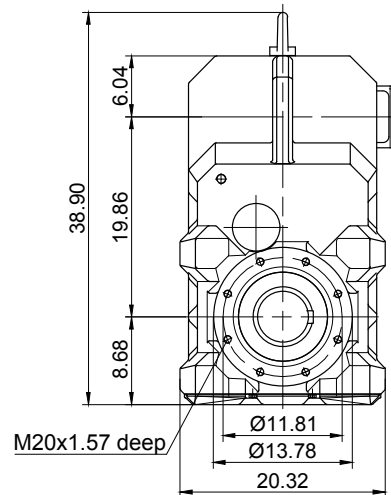
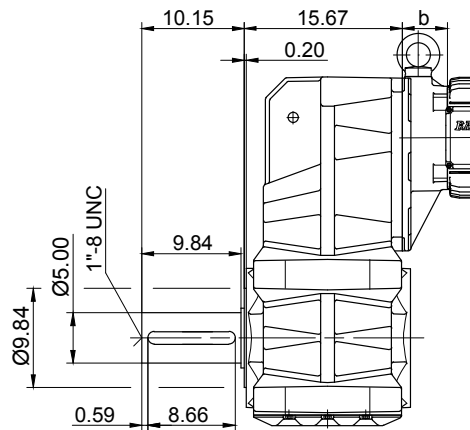
Type	a	b	c	d	Design with motor extensions				
					i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF90Z-../D..09..	9.88	9.94	7.13	35.81	6.22	39.47	40.02	43.58	39.47
BF90-../D..11..	12.56	3.43	8.98	31.97	7.17	35.83	36.18	39.94	35.83
BF90Z-../D..11..	12.56	10.20	8.98	38.74	7.17	42.60	42.95	46.71	42.60
BF90-../D..13..	15.47	3.94	10.16	35.39	8.54	39.25	39.61	43.37	39.25
BF90Z-../D..13..	15.47	10.71	10.16	42.17	8.54	46.54	46.38	50.65	46.54
BF90-../D..16..	17.89	4.49	12.21	38.37	9.57	44.02	42.58	48.11	44.02
BF90Z-../D..16..	17.89	11.26	12.21	45.14	9.57	50.79	49.35	54.88	50.79
BF90-../D..18..	21.34	5.35	13.70	42.68	11.34	48.56	46.89	52.66	48.56
BF90Z-../D..18..	21.34	12.13	13.70	49.37	11.34	55.26	53.58	59.35	55.26
BF90-../D..20L	25.33	6.14	14.29	47.46	11.95	52.48	51.63	56.65	52.48
BF90-../D..22S	27.70	6.14	14.29	49.82	11.95	54.84	54.00	59.02	54.84
BF90-../D..22M	27.70	6.14	14.29	49.82	11.95	54.84	54.00	59.02	54.84

Parallel Shaft Geared Motors Series BF

Dimension Sheet

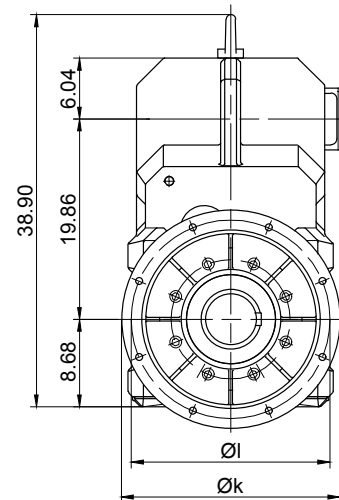
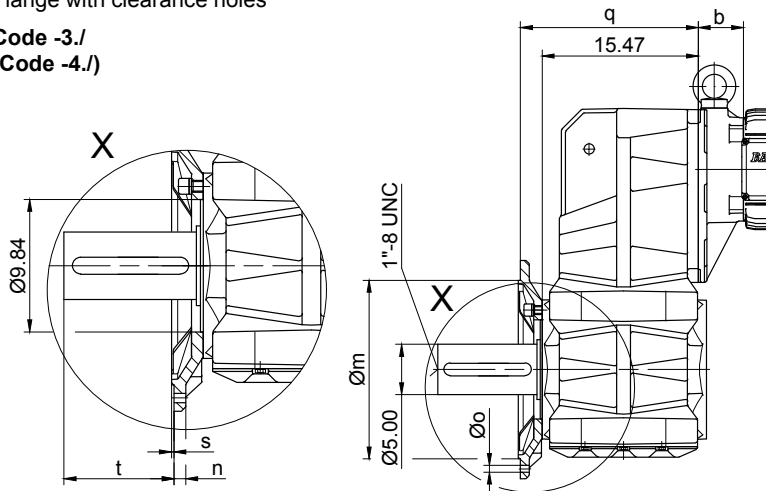
BF90 -BF90Z

Flange with tapped holes



Flange with clearance holes

Code -3./
(Code -4./)

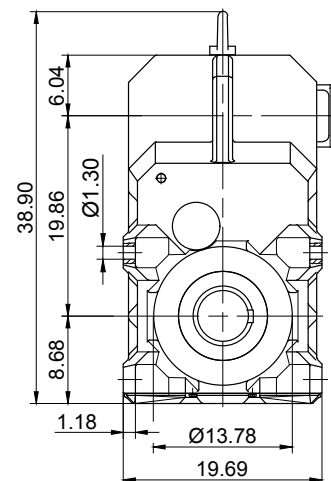
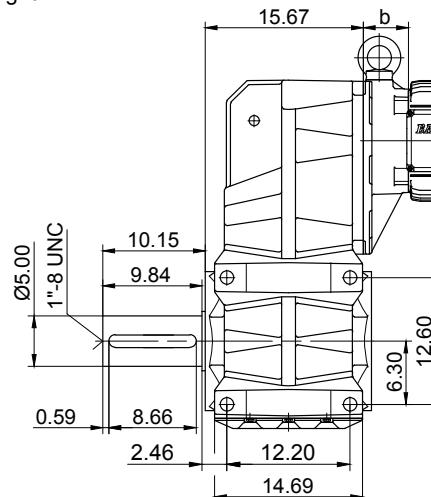


Flange dimensions

BF90(Z)	k	l	m	n	o	q	s	t
Standard -3./	21.654	19.685	17.717	0.866	0.689	17.638	0.197	8.583
big -4./	25.984	23.622	21.654	0.984	0.866	17.402	0.236	8.819

Foot with clearance holes left and right

Code -1.LR/



P-7187-BGM 03/18

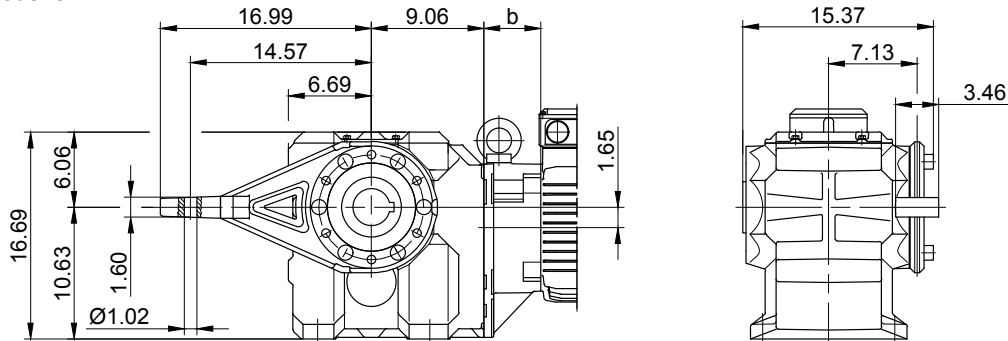
Bevel Geared Motors Series BK

BK70 -BK70Z

Dimension Sheet

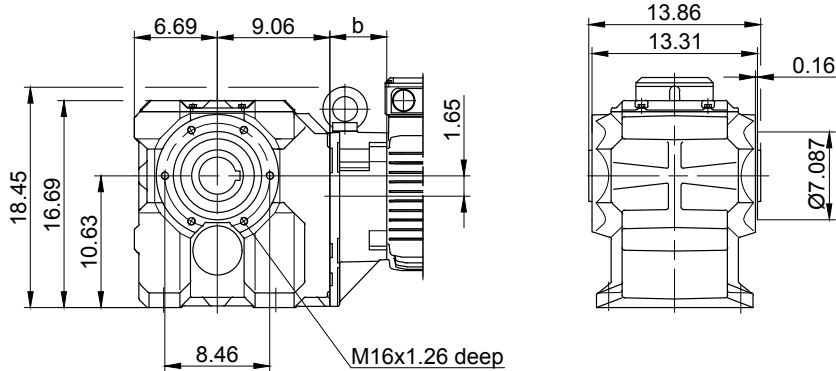
Torque arm at front

Code -5.V/



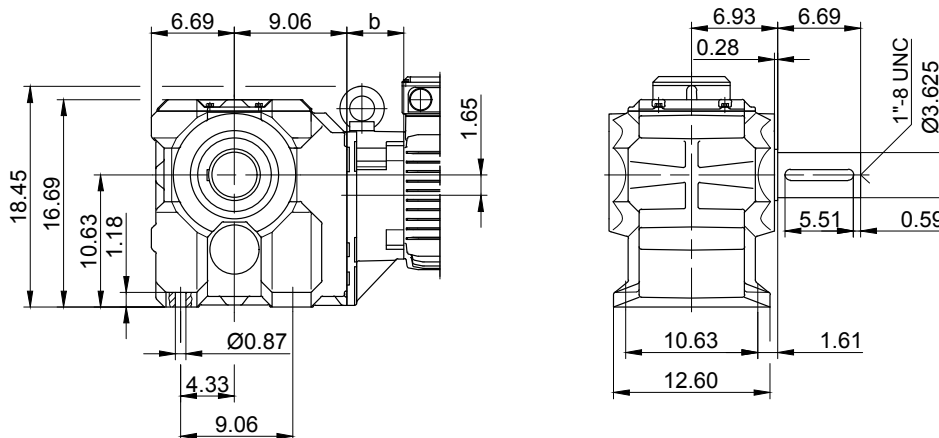
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK70(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	15.748	13.780	11.811	0.787	4 x Ø0.689	14.528	7.874	0.197	6.142
small -2.V/	13.780	11.811	9.843	0.787	4 x Ø0.689	14.528	7.874	0.197	6.142
big -4.V/	17.717	15.748	13.780	0.866	8 x Ø0.689	14.921	8.268	0.197	5.748

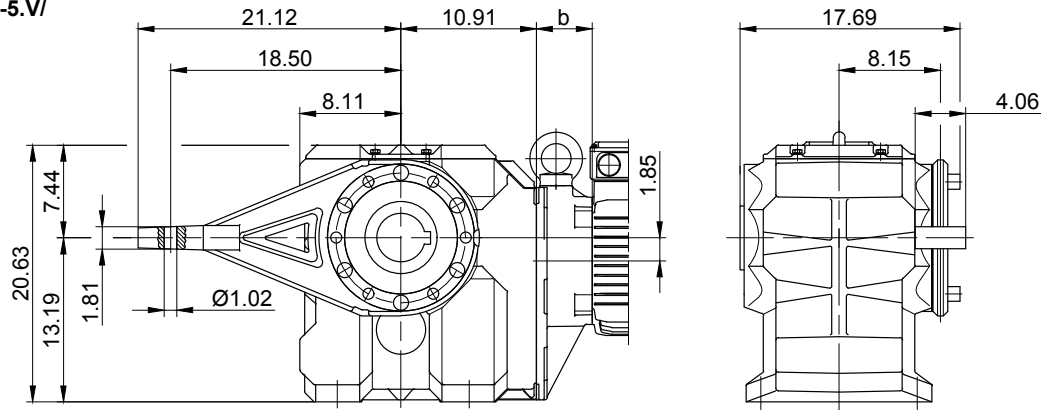
Bevel Geared Motors Series BK

BK80 -BK80Z

Dimension Sheet

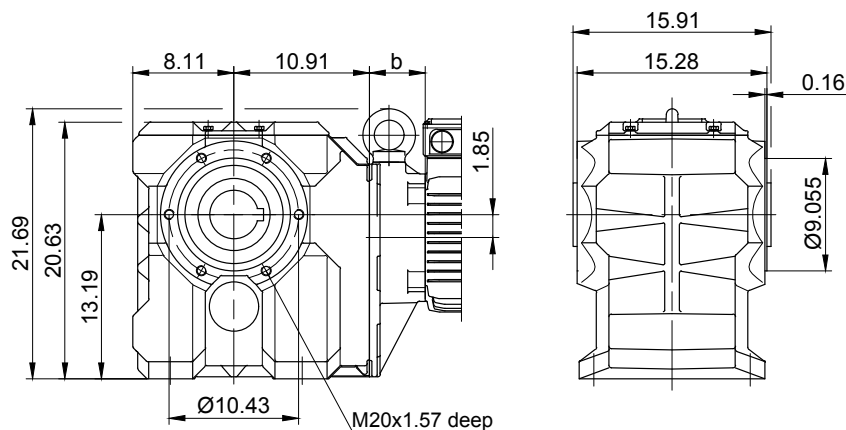
Torque arm at front

Code -5.V/



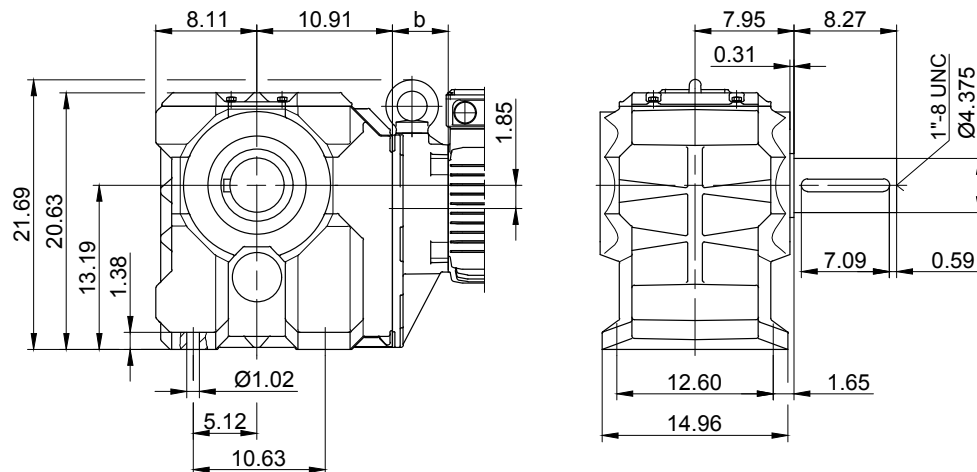
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK80(Z)	k	l	m	n	o	p	q	s	t
standard -3.V/	17.717	15.748	13.780	0.866	0.689	17.283	9.646	0.197	6.969
big -4.V/	21.654	19.685	17.717	0.866	0.689	17.480	9.843	0.197	6.772

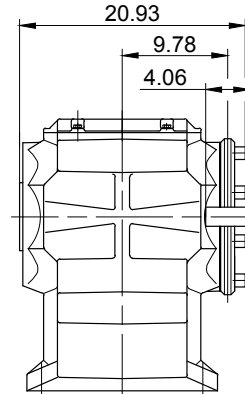
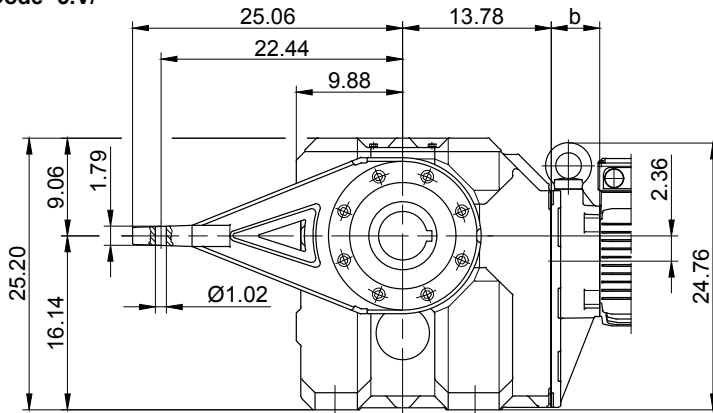
Bevel Geared Motors Series BK

BK90 -BK90Z

Dimension Sheet

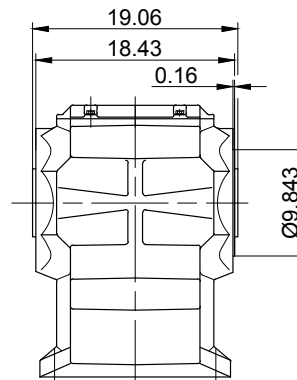
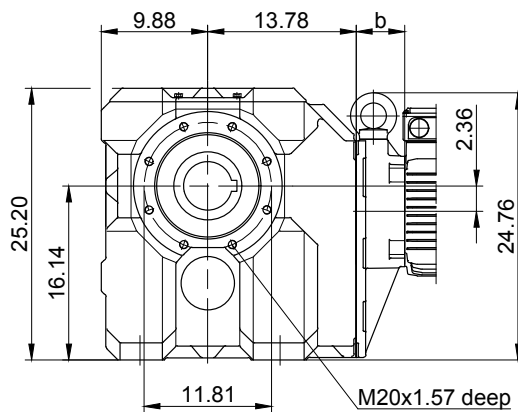
Torque arm at front

Code -5.V/



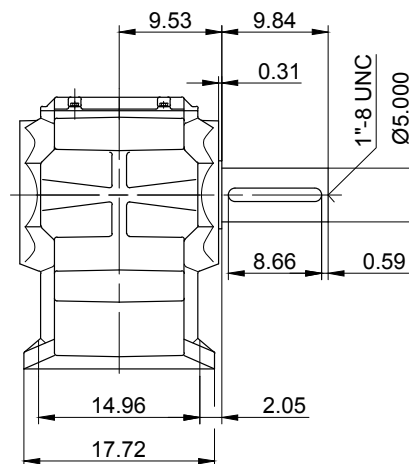
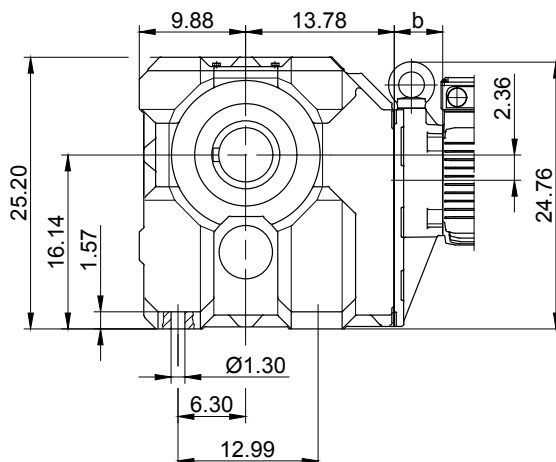
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

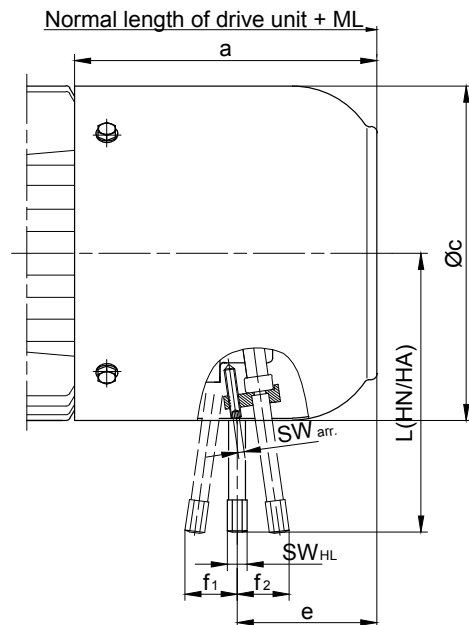


Flange dimensions

BK90(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	21.654	19.685	17.717	0.866	0.689	20.433	11.220	0.197	8.543
big -4.V/	25.984	23.622	21.654	0.984	0.866	20.197	10.984	0.236	8.780

Motors with Brake

Additional Dimension Sheet



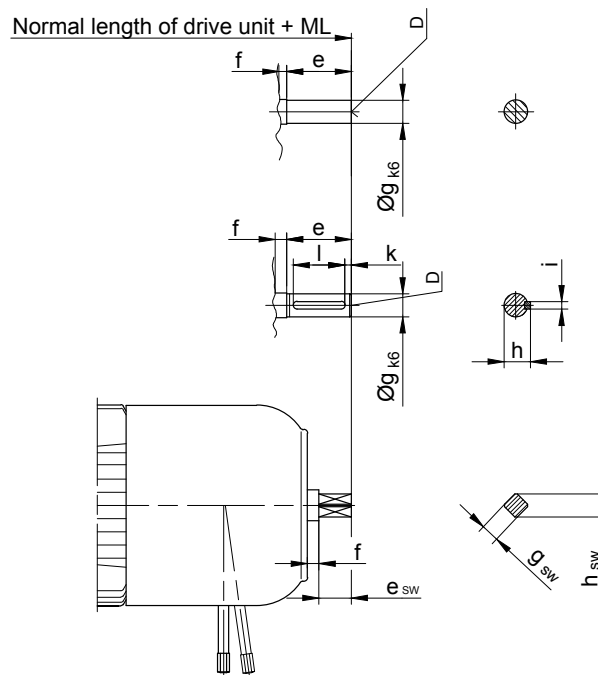
Motor Type	Brake Type	ML (inch) Additional length with brake	Dimensions (inch)								Add. weight
			a	Øc	e	f ₁	f ₂	L(HN/HA)	SW _{HL}	SW _{arr.}	
D04	E003 E003 / E004	1.71	3.82	4.35	2.30	0.81	0.94	3.78/4.01	0.43	0.43	2.20
D05		1.65	4.02	4.84	2.36						
D06					2.30						
D07											
D..08	ES(X)010	2.60	5.55	6.14	2.68	-	1.14	5.20	0.32	0.10	5.73
D..09	ES(X)010	3.66	6.81	6.93	3.90	-	1.14	5.20	0.32	0.10	5.95
	ES(X)027				3.58	-	1.40	6.38			9.26
D..11	ES(X)027	3.86	7.68	8.58	4.06	-	1.40	6.38	0.32	0.10	9.92
	ES(X)040				3.94	-	1.46	6.77			13.89
	ES(X)070				3.78	-	1.36	7.48	0.47	0.16	18.74
	ES(X)040				4.92	-	1.61	7.95	0.47	0.16	14.33
D..13	ES(X)070	4.76	-	1.50	8.86	18.74					
	ES(X)125	4.57	-	1.77	8.78	27.56					
D..16	ES(X)125	5.67	11.42	12.20	5.83	-	1.91	9.61	0.47	0.16	29.76
	ES(X)200				5.55	-	1.97	10.08			41.89
	ZS(X)300				4.41	-					48.50
	D..18				ES(X)250	5.91	13.35	13.70			6.02
ZS(X)500		4.84	-	0.75	0.20				66.14		
D..20L	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	60.63
	ZS(X)500				6.00			12.32			
	ZS(X)800				5.87						
D..22S	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	61.07
	ZS(X)500				6.00			12.32			
	ZS(X)800				5.87						
D..22M	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	135.58
	ZS(X)500				6.00			12.32			
	ZS(X)800				5.87						

HN = Manual release non-locking

HA = Manual release locking

Motors with Brake and 2nd Motor Shaft Extension

Additional Dimension Sheet

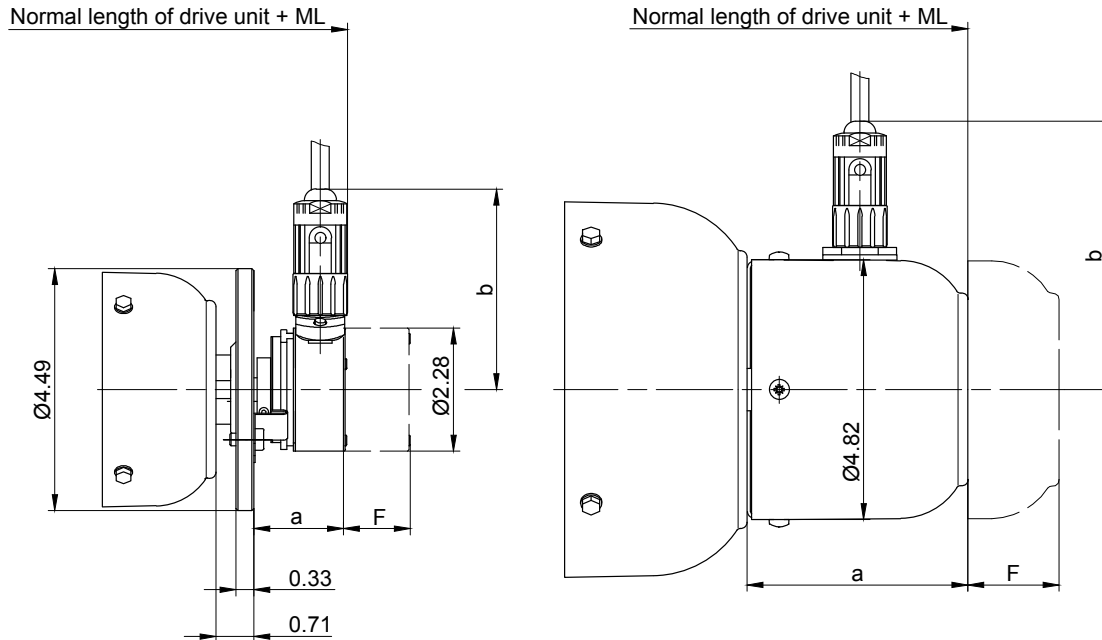


Motor	Brake	Additional length		Dimensions (mm)											Center D DIN332	
		ML	ML _{SW}	e	e _{SW}	f	g	g _{SW}	h	h _{SW}	i	k	l	Center D	DIN332	
D04	E003	63	-	15	-	5	8	-	-	-	-	-	-	-	-	
D05				20			10									
D06																
D07																
E003 / E004																
D..08	ES(X)..	121	96 *	50	25 *	5	18	SW14 *	20.5	18 *	6	5	40	D6	D4 *	
D..09		98	123 *				20 *	SW14	22.5 *	18	6 *	5 *	40 *	D6 *	D4 *	
D..11		153.5 *	128	50 *	25		28 *	SW22	31 *	28	8 *					50 *
D..13		176 *	156	60 *	40							4.5				
D..16	ES(X).. / ZS(X)..	208.5 *	188.5			5										
D..18		359 *	194.5													
D..20L	ES(X).. / ZS(X)..	127.5 *	172.5	60 *	40	5	28 *	SW22	31 *	28	8 *	5 *	50 *	D10 *	D10 *	
D..22S																
D..22M																

* Special design with manual release

Motors with Encoder

Additional Dimension Sheet



D04

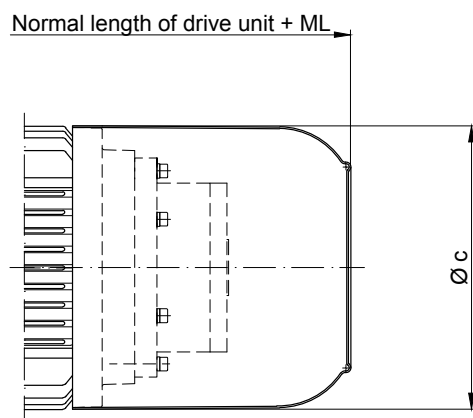
D05 - D..22

Fan cover geometry for D..16 - D..22, see dimensional drawing: terminal box as standard version

Motor	ML(inch) Additional length with encoder	Dimensions (inch)				Add. weight	Free space for removing encoder "F"	
		incremental encoder		absolute encoder			incremental encoder	absolute encoder
		Fa. Kübler Typ 5820		Fa. TR Typ CS58-M			Fa. Baumer EIL580	Fa. TR Typ CS58-M
		a	b	a	b	lbs		
D04	2.46	1.71	3.74	2.74	4.31	1.54	1.18	2.17
D05	4.06	3.88	5.00	3.88	5.00	1.98	2.48	3.46
D06								
D07								
D..08	4.23	4.23		1.61		2.60		
D..09	4.21	4.09		4.09		1.76	1.69	2.68
D..11								
D..13								
D..16	4.33	4.17	5.00	4.17	5.00			
D..18								
D..20L	4.17	4.17	4.17	2.65				
D..22S								
D..22M								

Motors with Backstop

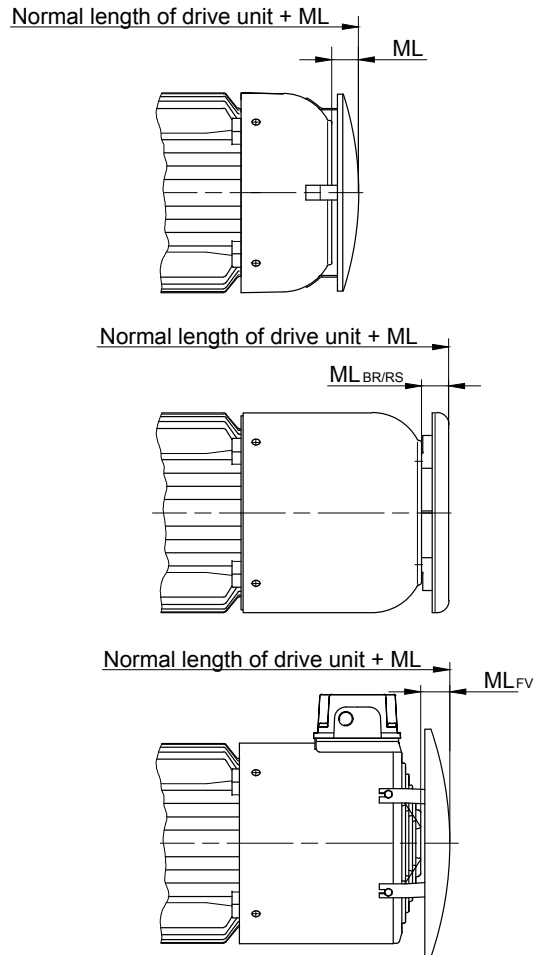
Additional Dimension Sheet



Motor	ML (inch) Add. length with backstop	Dimensions (inch)	Add. weight
		c	lbs
D..08	2.60	6.14	14.33
D..09	3.66	7.13	14.33
D..11	3.86	8.98	17.64
D..13	4.37	10.16	29.76
D..16	5.67	12.21	35.27
D..18	5.91	13.70	37.48
D..20L	-	14.29	20.94
D..22S			
D..22M			

Motors with Protective Hood

Additional Dimension Sheet

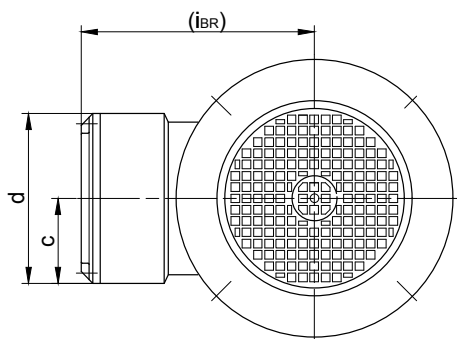


Fan cover geometry for D..16 - D..22,
see dimensional drawing: terminal box as standard version

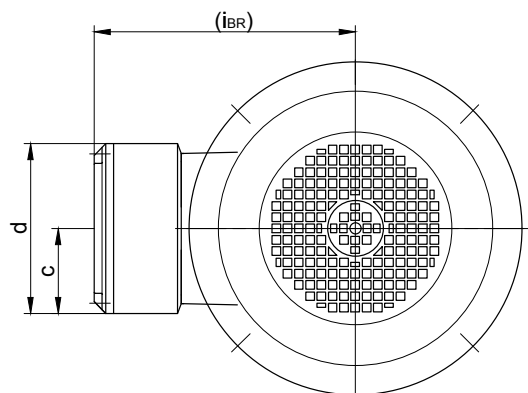
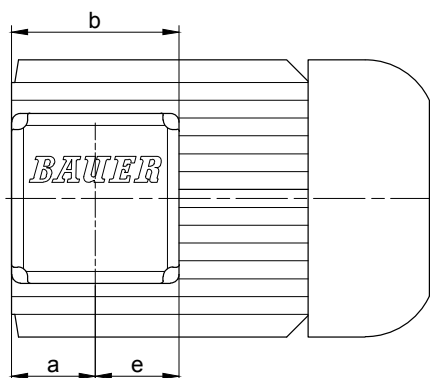
Motor	ML(mm) Add. length with attached protective cover				Add. weight lbs
	ML	ML _{BR}	ML _{RS}	ML _{FV}	
D04	0.63	-	-	-	0.33
D05	0.71	-	-	-	0.33
D06	0.71	-	-	-	0.33
D07	0.71	-	-	-	0.33
D..08	0.57	0.96	0.96	1.57	0.44
D..09	0.87	0.96	0.96	1.18	0.66
D..11	1.14	1.16	1.16	1.30	0.88
D..13	1.18	1.16	1.16	0.98	1.32
D..16	1.20	1.36	1.36	1.26	3.97
D..18	1.20	1.36	1.36	1.26	12.13
D..20L	1.22	1.22	1.22	1.22	14.11
D..22S	1.22	1.22	1.22	1.22	14.11
D..22M	1.22	1.22	1.22	1.22	14.11

Terminal Box in Standard Design

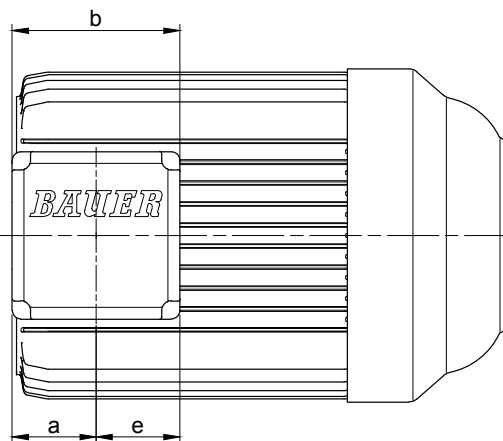
Additional Dimension Sheet



D04 - D..13



D..16 - D..22

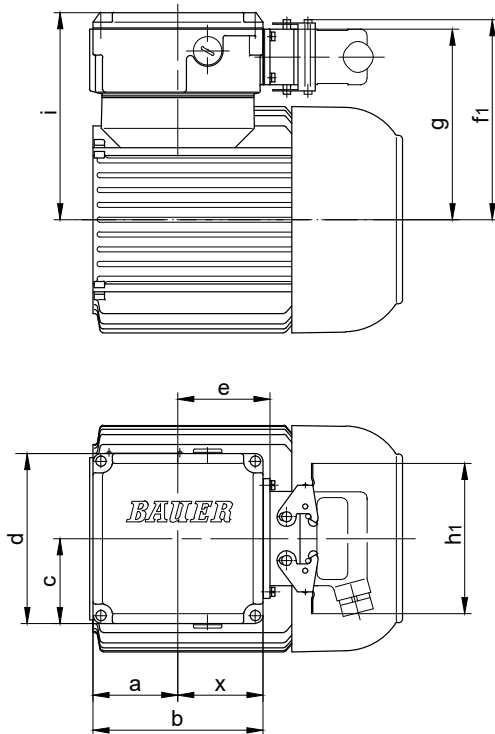


Motor/ Motor with Brake	Dimensions (mm)						Code	Cable entry Major (M) Minor (N)	max. wrench size for cable entry gland
	a	b	c	d	e	i / i _{BR}			
D04..	42.5	88	44	88	44	90	KAG1	M=2xM20x1.5	24 mm
D05..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D06..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D07..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D..08..	50	100	50	100	50	115	KAG2	M=2xM25x1.5	29 mm
D..09..	50	100	50	100	50	124	KAG2	M=2xM25x1.5	29 mm
D..11..	62	132	66.5	135	66	181	TB222	M=2xM32x1.5; N=2xM25x1.5	-
D..13..	78	156	78.5	158	78	217	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..16..	74	156	78.5	158	78	243	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..18..	94	200	100.5	201	100	288	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..20L	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..22S	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..22M	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-

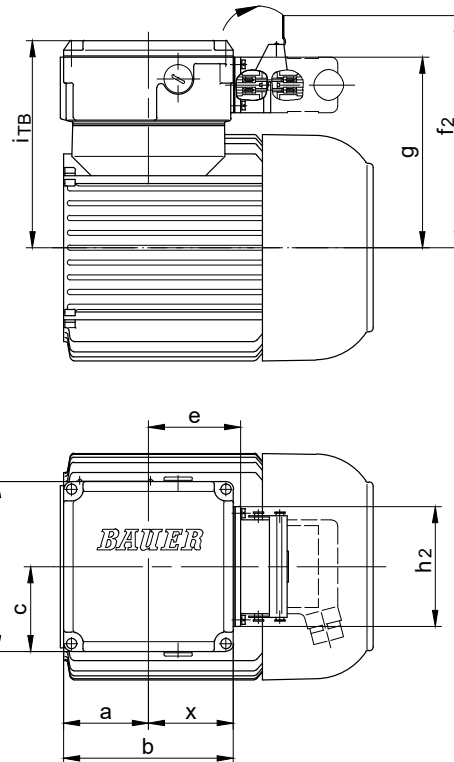
Terminal Box in Connector Design

Additional Dimension Sheet

Standard design (two brackets)



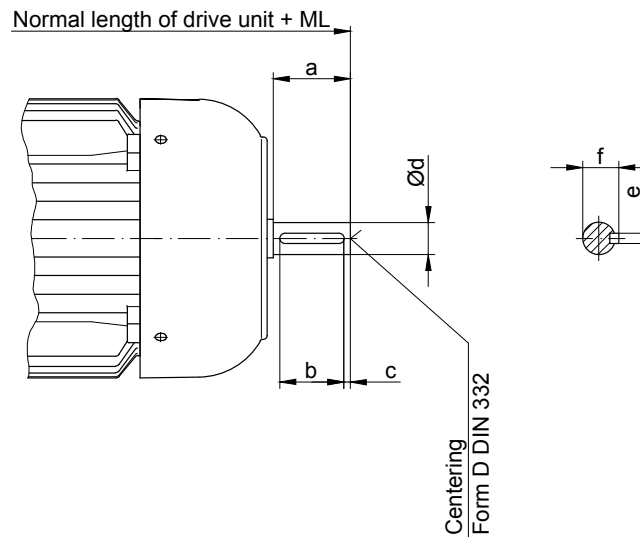
Optional for DESINA (one bracket)



Motor	Size of Terminalbox	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	iTB	x
D04	TBS1	1.18	3.54	2.07	4.17	1.93	4.67	5.79	4.37	4.61	3.66	4.90	1.81
D05	TBS1	2.24	3.54	2.07	4.17	1.93	4.86	5.98	4.57	4.61	3.66	5.10	1.81
D06	TBS1	1.77	3.54	2.07	4.17	1.93	4.94	6.06	4.65	4.61	3.66	5.18	1.81
D07	TBS1	1.77	3.54	2.07	4.17	1.93	4.94	6.06	4.65	4.61	3.66	5.18	1.81
D..08	TBS1	1.77	3.54	2.07	4.17	1.93	5.65	6.77	5.35	4.61	3.66	5.89	1.81
D..09	TBS2	2.44	5.20	2.60	5.32	2.82	6.24	7.36	6.22	4.61	3.66	6.46	2.70
D..11	TBS2	2.44	5.20	2.60	5.32	2.82	6.91	7.52	6.54	4.61	3.66	7.13	2.70
D..13	TBS3	3.07	6.14	3.07	6.22	3.29	7.83	8.96	7.54	4.61	3.66	8.50	3.13
D..16	TBS3	2.91	6.14	3.07	6.22	3.29	8.86	9.98	8.86	4.61	3.66	9.53	3.13
D..18	TBS4	3.70	7.87	3.94	7.91	4.15	10.12	11.77	10.12	4.61	3.66	11.30	3.96

Motors with 2nd Motor Shaft Extension

Additional Dimension Sheet



Motor	ML(mm) Add. length with second shaft end	Dimensions (mm)						Centering
		a	b	c	d	e	f	DIN 332
D04	20	15	-	-	8 _{g6}	-	-	-
D05	25	20	-	-	10 _{k6}	-	-	-
D06	25	20	-	-	10 _{k6}	-	-	-
D07	25.5	20	-	-	10 _{k6}	-	-	-
D..08	45	40	30	5	16 _{k6}	5	18	D 5
D..09	55	50	40	5	20 _{k6}	6	22.5	D 5
D..11	65	60	50	5	25 _{k6}	8	28	D 8
D..13	85	80	60	10	35 _{k6}	10	38	D 12
D..16	115	110	90	10	40 _{k6}	12	43	D 16
D..18	115	110	90	10	45 _{k6}	14	48.5	D 16
D..20L	115	110	90	10	45 _{k6}	14	48.5	D 16
D..22S	115	110	90	10	45 _{k6}	14	48.5	D 16
D..22M								

Motor Regulation 640/2009/EG

Which motors are subject to the ErP Directive as specified by the Electric Motors Regulation 640/2009/EC?

The new Electric Motors Regulation has a broader scope than the standard previously used in Europe.

- Single-speed, three-phase, 50 Hz and 50/60 Hz
- 2-, 4- or 6-pole motors
- Rated output from 0.75 to 375 kW
- Rated voltage up to 1000 V
- Duty type S1 (continuous running)
- For operation directly from the mains (50 Hz or 60 Hz)
- For Design N motors complying with IEC 60034-12
- Motors with two switchable rated voltages, under the condition that the magnetic flux is the same with both voltages
- Geared motors

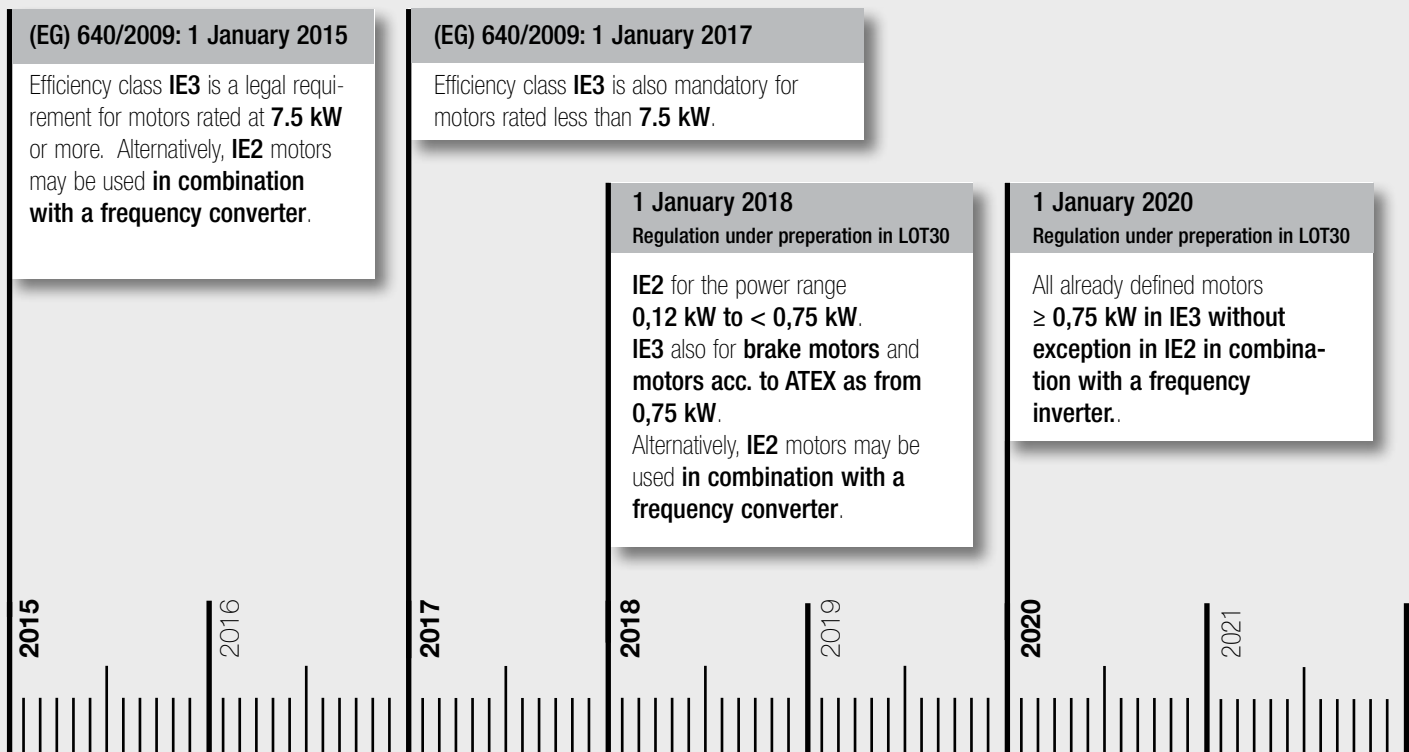
Which motors are excluded from regulation?

- Motors exclusively manufactured for converter operation in accordance with IEC 60034-25
- Pole-changing motors
- Motors fully integrated into a machine (such as pumps, fans and compressors) that cannot be tested separately from the machine
- At altitudes exceeding 4000 meters above sea-level
- Where ambient air temperatures exceed 60° C
- Where ambient air temperatures are less than -30° C
- From 16 June 2011 onward: IE1 motors for none S1 duty destined for the European market
- Explosion-proof motors (explosion protection has higher priority)
- Brake motors
- as from 2015/2017, IE2-Motors for use with variable speed drives (Additional name plate)

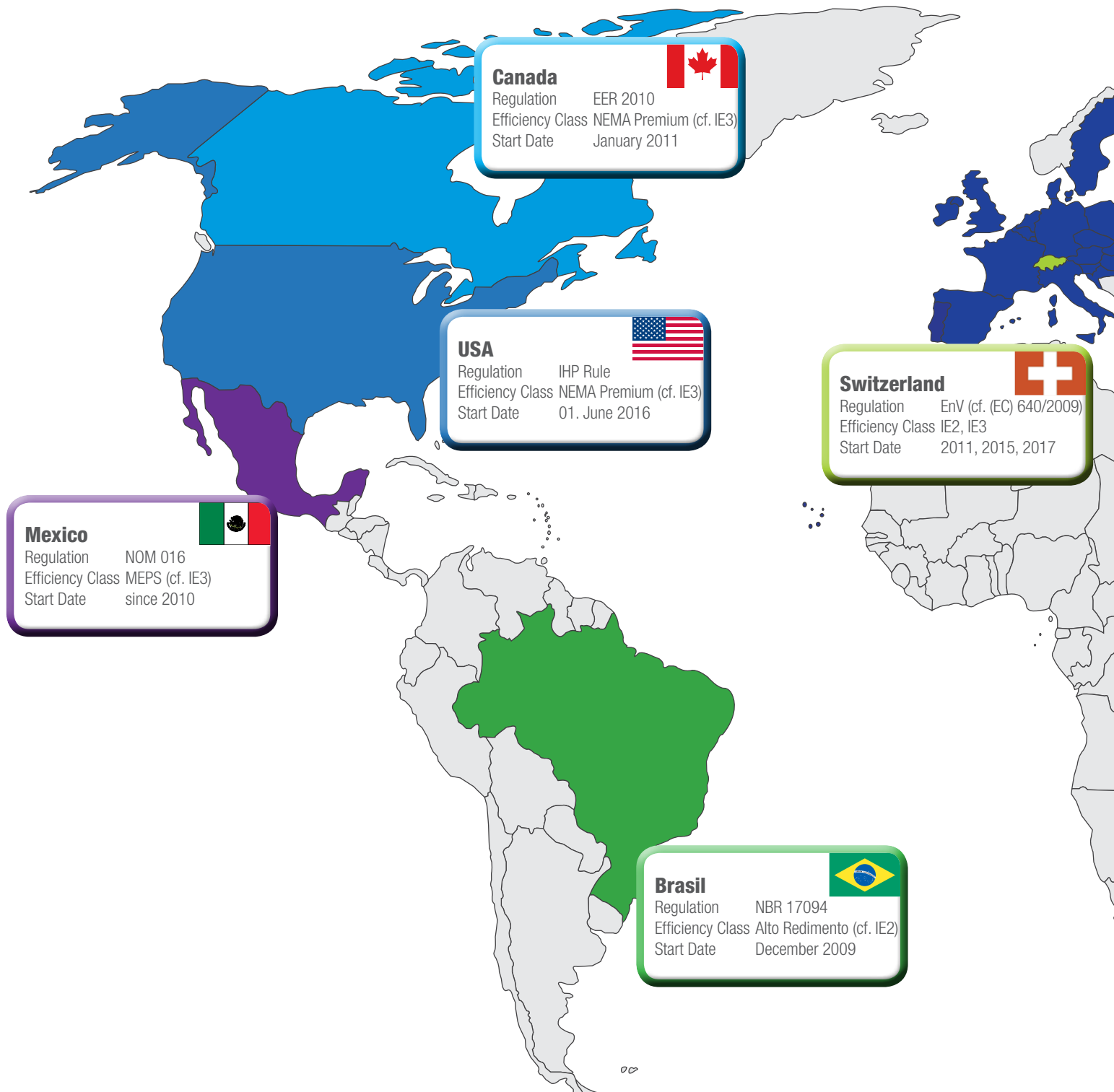
Example:

IE2 | EU REGULATION 640/2009
USE WITH VARIABLE
SPEED DRIVE ONLY!

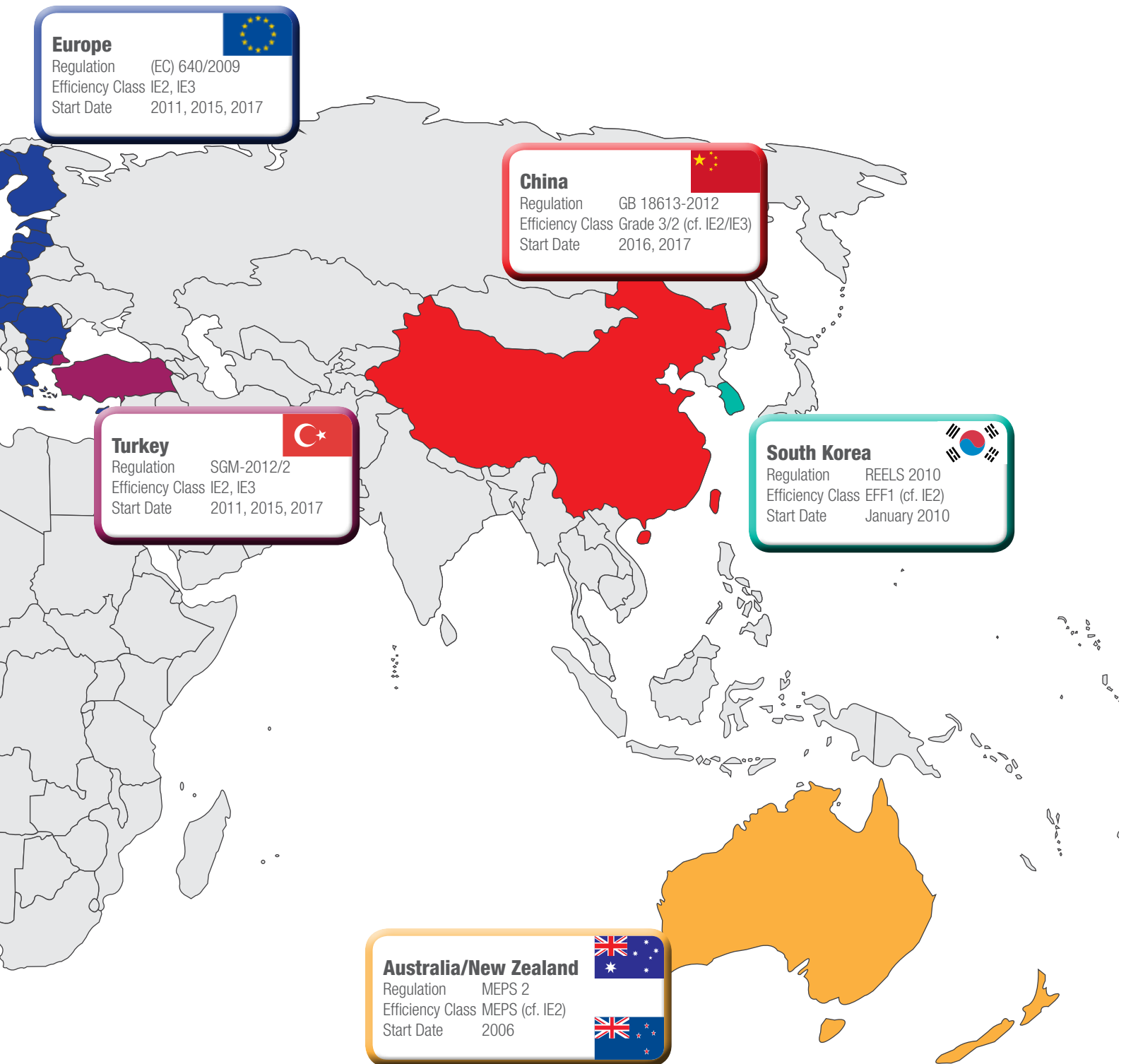
Legal Requirements for Minimum Efficiency Levels



Worldwide Energy Efficiency Requirements



Further information see publication **P-7190-BGM** under www.altraliterature.com



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