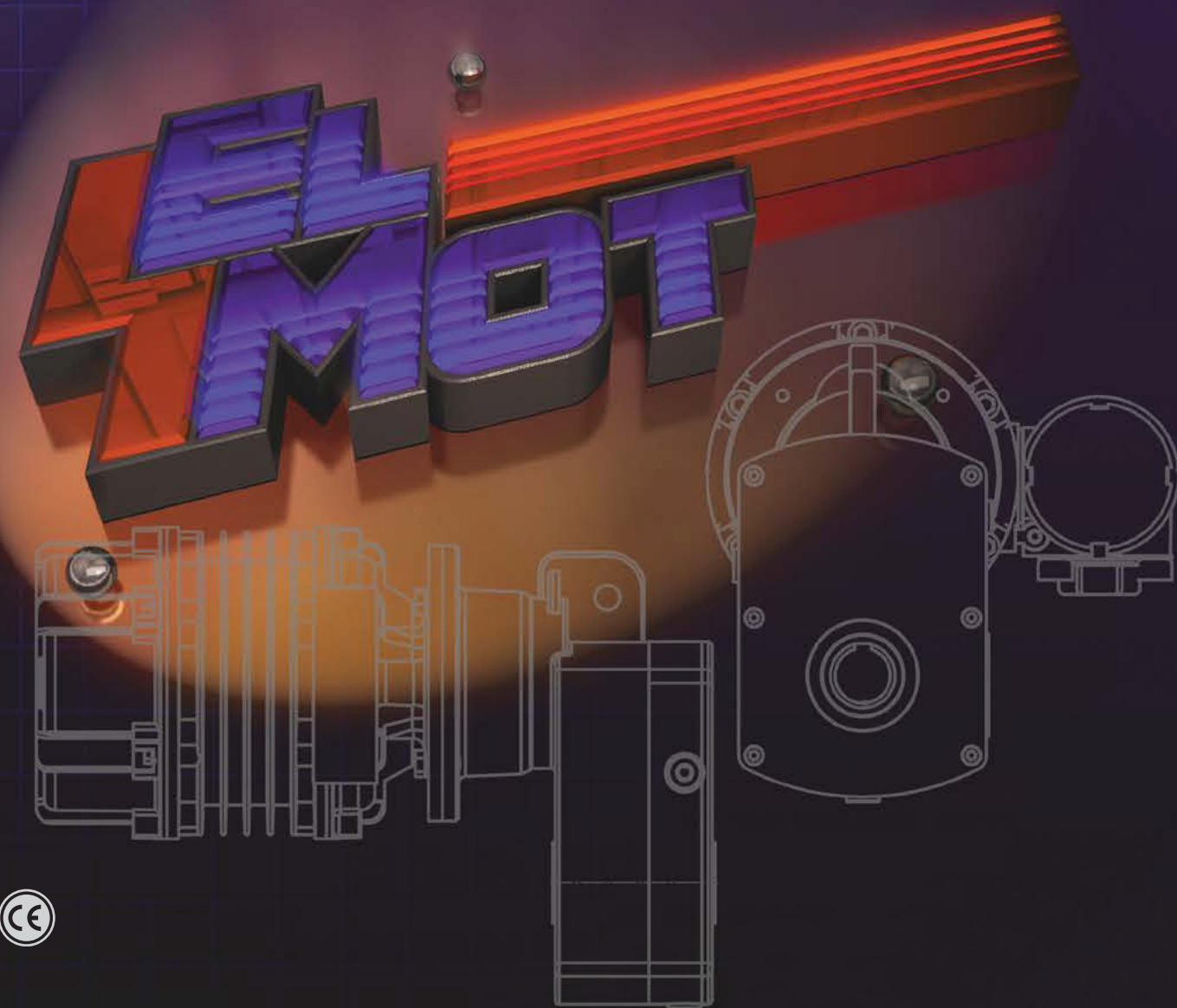


GEARED MOTORS

GETRIEBEMOTOREN

TP SERIES



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**Reduktoren und
Getriebemotorgruppen, Serie TP**

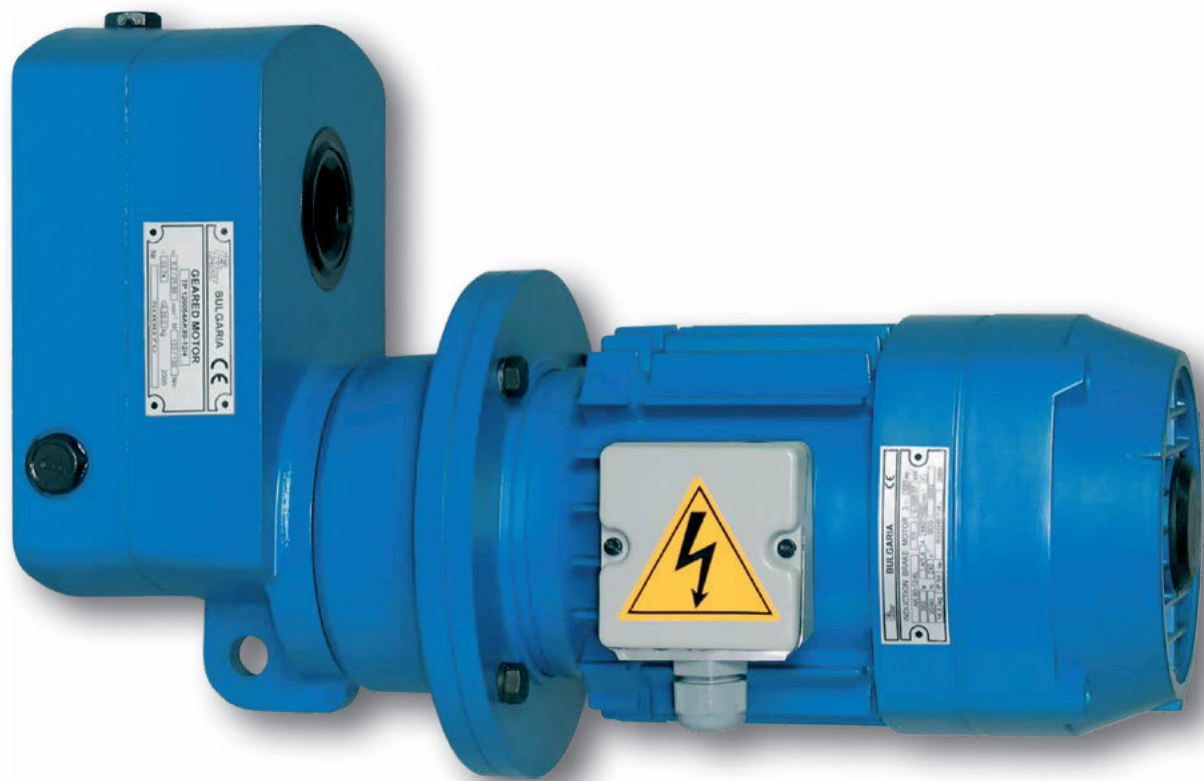
- Getriebemotoren mit Asynchronmotoren, konischen Rotor und eingebauter Bremse
- breite Gamma Ausgangsumlauf und Drehmomenten, laut Kundenforderungen
- IP54, IP22 der Bremse (EN60529)
- Flanschanschluss-IM B5 (EN60034-7)
- Moeglichkeit fuer Thermoschutz-oder Ex Ausfuehrung
- Variante ,von Motorleistung abhaengig
- Speisespannungsmodifikationen

Anwendung: Antrieb der Krananlage und andere Hubwerke

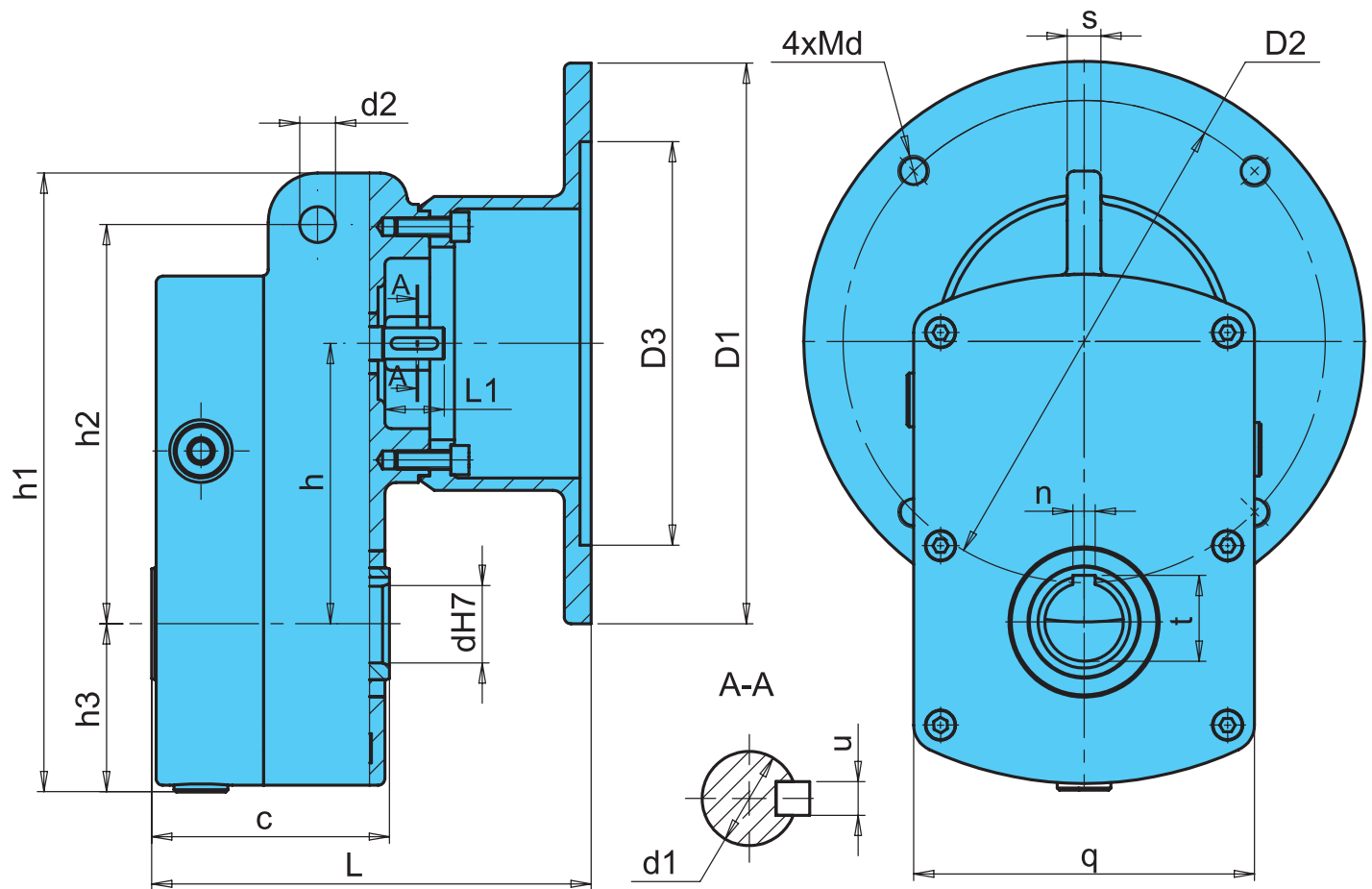
**Reducers and
geared motors TP series**

- Geared motor groups including asynchronous brake motors with conical rotor
- Wide range of output speeds and output torques according to client requirements
- IP 54, brake protection IP 22 (EN 60529)
- Flange joining-IM B5 (EN 60034-7)
- Optional thermal or explosion-proof protection
- Modifications by electric motor power
- Different supply voltages on request

Applications: For travelling mechanisms of cranes and other lifting systems



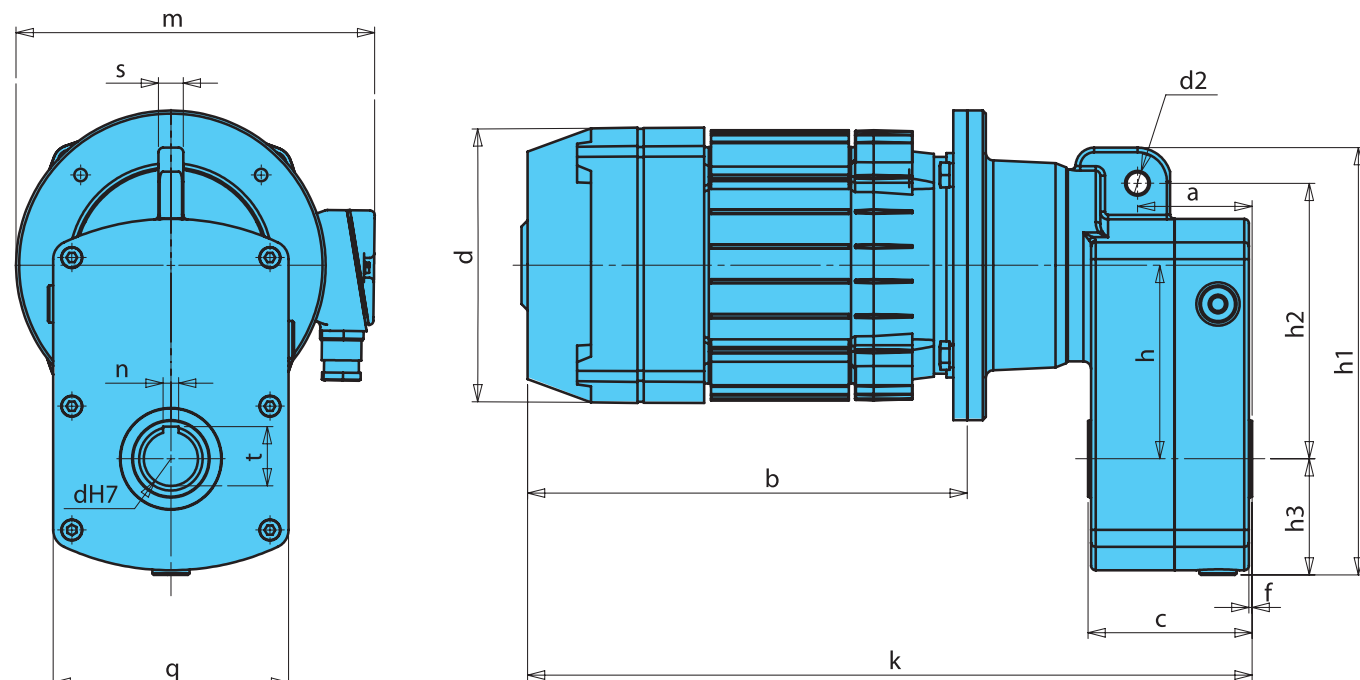
Reduktor Typ - Zusammensetzung: Reducer designation:		
TP	160	36
Type	Baugroesse Dimension	Uebersetzungszahl Transmission ratio



Anschlussmasse / Overall dimensions

Reduktor Typ Reducer type	fuer Motoren Typ for motor type	c	L	L1	d2	h	h1	h2	h3	dH7	4xMd	D1	D2	D3	d1	n	t	s	q	
TP 160	AK 71	97	150.5	22	16	100	243	150	70	30	4xM8	160	130	110	11	4	8	33.3	14	132
	AK 80		170.5								4xM10	200	165	130						
	AK 90		180.5								4xM10	200	165	130						
TP 200	AK 71	106	164	27	16	125	280	178	79	35	4xM8	160	130	110	14	5	10	38.3	16	152
	AK 80		184								4xM10	200	165	130						
	AK 90		196								4xM12	250	215	180						
	AK 100		196								4xM12	250	215	180						
TP 250	AK 80	118	198	27	18	145	335	207	95	40	4xM10	200	165	130	16	5	12	43.3	18	180
	AK 90		210								4xM12	250	215	180						
	AK 100		210								4xM12	250	215	180						
TP 315	AK 90	142	221	29	22	174	386	244	109	50	4xM10	200	165	130	19	6	14	53.8	16	210
	AK 100		233								4xM12	250	215	180						

Getriebemotor / Geared motor

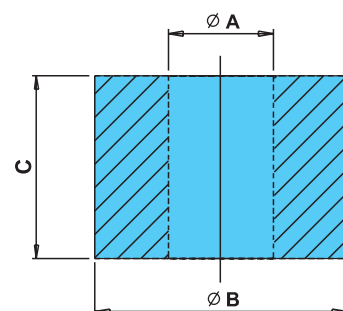


Anschlussmasse / Overall dimensions

Typ/Type	a	b	c	d	f	k	m	q	s	d2	h	h1	h2	h3	dH7	n	t
TP1160 AK 71	67.5	255	97	140	1.5	406	195	132	14	16	100	243	150	70	30	8	33.3
TP1160 AK 80		272		160		443	220										
TP1160 AK 90		290		178		471	230										
TP1160 AK 90P		320		178		501	230										
TP1200 AK 71	74	255	106	140	2	419	195	152	16	16	125	280	178	79	35	10	38.3
TP1200 AK 80		272		160		456	220										
TP1200 AK 80P		272		160		456	220										
TP1200 AK 90		290		178		474	230										
TP1200 AK 90P		320		178		504	230										
TP1200 AK 100		356		200		552	261										
TP1200 AK 100P	78	386	118	200	2	582	261	180	18	18	145	335	207	95	40	12	43.3
TP1250 AK 80P		272		160		470	220										
TP1250 AK 90		290		178		488	230										
TP1250 AK 90P		320		178		518	230										
TP1250 AK 100	98	356	142	200	2	566	261	210	16	22	174	386	244	109	50	14	53.8
TP1250 AK 100P		386		200		596	261										
TP1315 AK 90P		320		178		541	230										
TP1315 AK 100		356		200		589	261										
TP1315 AK 100P		386		200		619	261										

ABDICHTUNG / SEAL

Anschlussmasse / Overall dimensions



Reduktor Typ Reducer type	Ø A mm	Ø B mm	C mm
TP 160/TP 160L	14	41	30
TP 200/TP 200L			
TP 250/TP 250L	17	50	40
TP 315	21	55	40



Getriebemotor / Geared motor

TP 1160	Mmax-250Nm		Nenndaten / Rated data		
2p = 8/2 - 660/2700 min ⁻¹ ; 2p = 12/4 - 455/1420 min ⁻¹ ; 2p = 4 - 1420 min ⁻¹					
Typ Type	Leistung	Uebersetzung- szahl	Start Umdrehung	Startmoment	Anschnitzung Faktor
	Power	Transmission ratio	Output Speed	Output Torque	Service Factor
	<i>kW</i>	-	<i>min⁻¹</i>	<i>Nm</i>	<i>f_s</i>
TP1160 79 AK71B4	0.25	79.08	16.44	137.83	1.81
TP1160 79 AK71B8/2	0.06/0.25		8.34/34.14	65.15/77.90	3.84/3.21
TP1160 79 AK71-8/2	0.06/0.30		8.34/34.14	65.15/93.48	3.84/2.67
TP1160 79 AK80B12/4	0.08/0.25		5.69/17.70	127.41/127.98	1.96/1.95
TP1160 70 AK71B4	0.25	69.89	18.60	121.80	2.05
TP1160 70 AK71B8/2	0.06/0.25		9.44/38.63	57.58/68.85	4.34/3.63
TP1160 70 AK71-8/2	0.06/0.30		9.44/38.63	57.58/70.38	4.34/3.55
TP1160 70 AK80B12/4	0.08/0.25		6.44/20.03	112.61/113.11	2.22/2.21
TP1160 64 AK71B4	0.25	63.72*	20.40	111.05	2.25
TP1160 64 AK71B8/2	0.06/0.25		10.35/42.37	52.50/62.77	4.76/3.98
TP1160 64 AK71-8/2	0.06/0.30		10.35/42.37	52.50/75.32	4.76/3.32
TP1160 64 AK80B12/4	0.08/0.25		7.06/21.97	102.66/103.13	2.43/2.42
TP1160 56 AK71-4	0.37	56.31	23.08	145.25	1.72
TP1160 56 AK80-12/4	0.12/0.37		7.81/24.68	139.18/135.84	1.80/1.84
TP1160 48 AK71-4	0.37	48.69	26.69	125.57	1.99
TP1160 48 AK80-12/4	0.12/0.37		9.04/28.55	120.35/117.46	2.08/2.13
TP1160 47 AK71-4	0.37	46.63	27.88	120.26	2.08
TP1160 47 AK80-12/4	0.12/0.37		9.44/29.81	115.25/112.49	2.17/2.22
TP1160 43 AK71- 4	0.37	43.41*	29.95	111.95	2.23
TP1160 43 AK80-12/4	0.12/0.37		10.14/32.02	107.30/104.72	2.33/2.39
TP1160 39 AK80-4	0.55	39.23	34.41	144.85	1.7
TP1160 39 AK80P12/4	0.18/0.55		11.22/35.69	145.45/139.68	1.72/1.79
TP1160 36 AK80-4	0.55	35.95*	37.55	132.74	1.88
TP1160 36 AK80P12/4	0.18/0.55		12.24/38.94	133.29/128	1.87/1.95
TP1160 33 AK80-4	0.55	33.04	40.86	121.99	2.05
TP1160 33 AK80P12/4	0.18/0.55		13.32/42.37	122.50/117.64	2.04/2.12
TP1160 30 AK80-4	0.55	30.25	44.63	111.69	2.24
TP1160 30 AK80P12/4	0.18/0.55		14.38/46.28	112.15/107.70	2.23/2.32
TP1160 29 AK90-12/4	0.25/0.75	28.66*	15.00/49.20	151.00/138.16	1.66/1.81
TP1160 28 AK90-12/4	0.25/0.75	27.87*	15.43/50.59	146.85/134.35	1.70/1.86
TP1160 22 AK90-12/4	0.25/0.75	22.09	19.46/63.83	116.40/106.49	2.15/2.35
TP1160 20 AK90-4	1.1	20.19	68.85	144.80	1.73
TP1160 20 AK90P12/4	0.37/1.1		20.80/69.84	161.19/142.75	1.55/1.75
TP1160 16 AK90-4	1.1	16.26	85.49	116.62	2.14
TP1160 16 AK90P12/4	0.37/1.1		25.83/86.72	129.82/114.96	1.92/2.17
TP1160 13 AK90P4	1.5	12.54	110.84	122.64	2.04

* Empfehlunguebersetzungszahl / recommended transmission ratios

Getriebemotor / Geared motor

TP 1200		M _{max} = 500Nm		Nenndaten / Rated data	
2p = 8/2 - 660/2700 min ⁻¹ ; 2p = 12/4 - 455/1420 min ⁻¹ ; 2p = 4 - 1420 min ⁻¹					
Typ Type	Leistung	Uebersetzung - szahl	Start Umdrehung	Startmoment	Ansnutzung Faktor
	Power	Transmission ratio	Output Speed	Output Torque	Service Factor
	<i>kW</i>	-	<i>min⁻¹</i>	<i>Nm</i>	<i>f_s</i>
TP1200 84 AK71-4	0.37	84.40*	15.99	212.07	2.36
TP1200 84 AK80-12/4	0.12/0.37		5.21/16.47	211.03/205.97	2.37/2.43
TP1200 70 AK80P12/4	0.18/0.55	69.56	6.32/20.13	260.88/250.53	1.92/1.99
TP1200 57 AK80P 4	0.75	57.29	23.74	289.65	1.73
TP1200 57 AK90-12/ 4	0.25/0.75		7.50/24.61	305.37/279.38	1.64/1.79
TP1200 54 AK80P 4	0.75	53.74*	25.30	271.70	1.84
TP1200 54 AK90-12/ 4	0.25/0.75		8.00/26.24	286.45/262.07	1.75/1.91
TP1200 50 AK80P 4	0.75	49.65	27.39	251.02	1.99
TP1200 50 AK90-12/ 4	0.25/0.75		8.66/28.40	264.65/242.12	1.89/2.06
TP1200 50 AK90PB12/4	0.3/0.9		8.46/28.40	325.14/290.55	1.54/1.72
TP1200 44 AK80P 4	0.75	44.29*	30.71	223.92	2.23
TP1200 44 AK90-12/ 4	0.25/0.75		9.71/31.84	236.08/215.98	2.12/2.31
TP1200 44 AK90PB12/4	0.3/0.9		9.48/31.84	290.04/259.18	1.79/2.00
TP1200 43 AK80P 4	0.75	42.70	31.85	215.89	2.32
TP1200 43 AK90-12/ 4	0.25/0.75		10.07/33.02	227.60/208.23	2.20/2.40
TP1200 43AK90PB12/4	0.3/0.9		9.84/33.02	279.62/249.88	1.79/2.00
TP1200 41 AK80P 4	0.75	40.92	33.24	206.89	2.42
TP1200 41 AK90-12/ 4	0.25/0.75		10.51/34.46	218.11/199.55	2.29/2.50
TP1200 41 AK90PB12/4	0.3/0.9		10.26/34.46	267.97/239.46	1.86/2.09
TP1200 40 AK90- 4	1.1	39.72	34.74	290.27	1.72
TP1200 40 AK90PB12/4	0.3/0.9		10.57/35.50	260.11/232.44	1.92/2.15
TP1200 40 AK90P12/4	0.37/1.1		10.57/35.50	320.80/284.09	1.56/1.76
TP1200 35 AK90- 4	1.1	35.19*	39.26	256.87	1.95
TP1200 35 AK90PB12/4	0.3/0.9		11.95/40.11	230.18/205.69	2.17/2.43
TP1200 35 AK90P12/4	0.37/1.1		11.95/40.11	283.89/251.40	1.76/1.99
TP1200 32 AK90- 4	1.1	32.27*	42.76	235.82	2.12
TP1200 32 AK90PB12/4	0.3/0.9		13.01/43.69	260.63/230.81	1.92/2.17
TP1200 32 AK90P12/4	0.37/1.1		13.01/43.69	211.32/188.84	2.37/2.65
TP1200 27 AK90P4	1.5	26.60*	53.00	259.44	1.93
TP1200 27 AK100- 12/4	0.5/1.5		15.79/53.00	290.32/259.44	1.72/1.93
TP1200 25 AK90P4	1.5	24.82	56.81	242.07	2.06
TP1200 25 AK100-12/4	0.5/1.5		16.92/56.81	270.89/242.07	1.84/2.06
TP1200 22 AK90P 4	1.5	21.84*	64.56	213.01	2.35
TP1200 22 AK100-12/4	0.5/1.5		19.23/64.56	238.37/213.01	2.09/2.35
TP1200 18 AK100- 4	2.2	18*	76.67	263.08	1.90
TP1200 18 AK100P12/4	0.75/2.2		23.33/78.33	294.68/257.48	1.70/1.94

* Empfehlungsuebersetzungszahl / recommended transmission ratios



Getriebemotor / Geared motor

TP 1250		M _{max} = 800Nm		Nenndaten / Rated data	
2p = 8/2 - 660/2700 min ⁻¹ ; 2p = 12/4 - 455/1420 min ⁻¹ ; 2p = 4 - 1420 min ⁻¹					
Typ Type	Leistung	Uebersetzungszahl	Start Umdrehung	Startmoment	Ansnutzung Faktor
	Power	Transmission ratio	Output Speed	Output Torque	Service Factor
	<i>kW</i>	-	<i>min⁻¹</i>	<i>Nm</i>	<i>f_s</i>
TP1250 88AK90-12/4	0.25/0.75	87.53	4.91/16.11	461/422	1.73/1.9
TP1250 72AK90-12/4	0.25/0.75	72.30*	5.95/19.50	381/348	2.10/2.3
TP1250 66AK90-12/4	0.25/0.75	65.82	6.53/21.42	347/317	2.30/2.52
TP1250 61AK90-4	1.1	60.87	22.67	440	1.82
TP1250 61AK90P12/4	0.37/1.1		6.90/23.16	486/430	1.65/1.86
TP1250 54AK90-4	1.1	54.37*	25.38	393	2.04
TP1250 54AK90P12/4	0.37/1.1		7.72/25.93	434/384	1.84/2.08
TP1250 52AK90-4	1.1	51.99	26.54	376	2.13
TP1250 52AK90P12/4	0.37/1.1		8.08/27.12	415/368	1.93/2.18
TP1250 48AK90-4	1.1	48.24	28.61	348	2.30
TP1250 48AK90P12/4	0.37/1.1		8.71/29.23	385/341	2.08/2.35
TP1250 46AK90P4	1.5	45.78*	30.14	451	1.77
TP1250 46 AK100-12/4	0.5/1.5		8.74/30.58	519/444	1.54/1.80
TP1250 39AK90P4	1.5	39.09	35.30	385	2.08
TP1250 39 AK100-12/4	0.5/1.5		10.23/35.81	443/380	1.80/2.10
TP1250 36AK90P4	1.5	36.28*	38	357	2.24
TP1250 36 AK100-12/4	0.5/1.5		11.02/38.59	411/352	1.95/2.27
TP1250 27AK100-4	2.2	26.59*	51.90	384	2.08
TP1250 27AK100P12/4	0.75/2.2		15.04/52.65	452/379	1.77/2.11
TP1250 20AK100P4	3.0	20.00	69.50	391	2.05
TP1250 16AK100P4	3.0	15.71	88.48	307	2.60
TP 1315	M _{max} = 1200Nm		Nenndaten / Rated data		
2p = 8/2 - 660/2700 min ⁻¹ ; 2p = 12/4 - 455/1420 min ⁻¹ ; 2p = 4 - 1420 min ⁻¹					
TP1315 86 AK90P12/4	0.37/1.1	86.03	4.88/16.39	680.6/602.5	1.76/1.77
TP1315 78 AK90P12/4	0.37/1.1	77.86	5.39/18.11	616.2/545.3	1.94/2.2
TP1315 71 AK90P4	1.5	70.56*	19.56	695.12	1.73
TP1315 71 AK100-12/4	0.5/1.5		5.95/19.98	754.4/673.9	1.59/1.78
TP1315 65 AK90P4	1.5	65.07	21.21	641.0	1.87
TP1315 65 AK100-12/4	0.5/1.5		6.45/21.67	695.9/621.4	1.72/1.93
TP1315 60 AK90P4	1.5	59.83	23.07	589.39	2.04
TP1315 60 AK100-12/4	0.5/1.5		7.02/23.57	639.4/571.3	1.88/2.10
TP1315 58 AK90P4	1.5	58.89*	23.43	580.15	2.07
TP1315 58 AK100-12/4	0.5/1.5		7.13/23.94	629.5/562.5	1.91/2.13
TP1315 54 AK90P4	1.5	54.15	25.48	533.46	2.25
TP1315 54 AK100-12/4	0.5/1.5		7.76/26.04	578.4/517.1	2.07/2.32
TP1315 51 AK90P4	1.5	51.10	27.01	503.41	2.38
TP1315 51 AK100-12/4	0.5/1.5		8.22/27.59	546.0/488.0	2.2/2.46
TP1315 46 AK100-4	2.2	46.24	29.84	668.8	1.79
TP1315 46 AK100P12/4	0.75/2.2		9.08/30.49	741.5/647.7	1.62/1.85
TP1315 45 AK100-4	2.2	44.98*	30.68	650.56	1.84
TP1315 45 AK100P12/4	0.75/2.2		9.34/31.35	720.85/630.0	1.66/1.90
TP1315 41 AK100-4	2.2	41.35*	33.37	598.06	2.01
TP1315 41 AK100P12/4	0.75/2.2		10.16/34.10	662.7/579.2	1.81/2.07
TP1315 35 AK100P4	3.0	35.32*	39.35	684.4	1.75
TP1315 35 AK100P12/4	0.75/2.2		11.89/39.92	566.25/494.7	2.12/2.42
TP1315 30 AK100P4	3.0	29.60	46.96	573.5	2.09
TP1315 30 AK100P12/4	0.75/2.2		14.19/47.64	474.5/414.6	2.53/2.89
TP1315 27 AK100P4	3.0	26.79*	51.88	519.1	2.31
TP1315 27 AK100P12/4	0.75/2.2		15.68/52.63	429.4/375.2	2.79/3.20
TP1315 20 AK100P4	3.0	20.46	67.94	396.4	3.03
TP1315 20 AK100P12/4	0.75/2.2		20.53/68.91	327.9/286.6	3.66/4.19

* Empfehlungsuebersetzungszahl / recommended transmission ratios

Asynchronmotoren, Serie AK mit eingebauter Bremse fuer Getriebemotoren

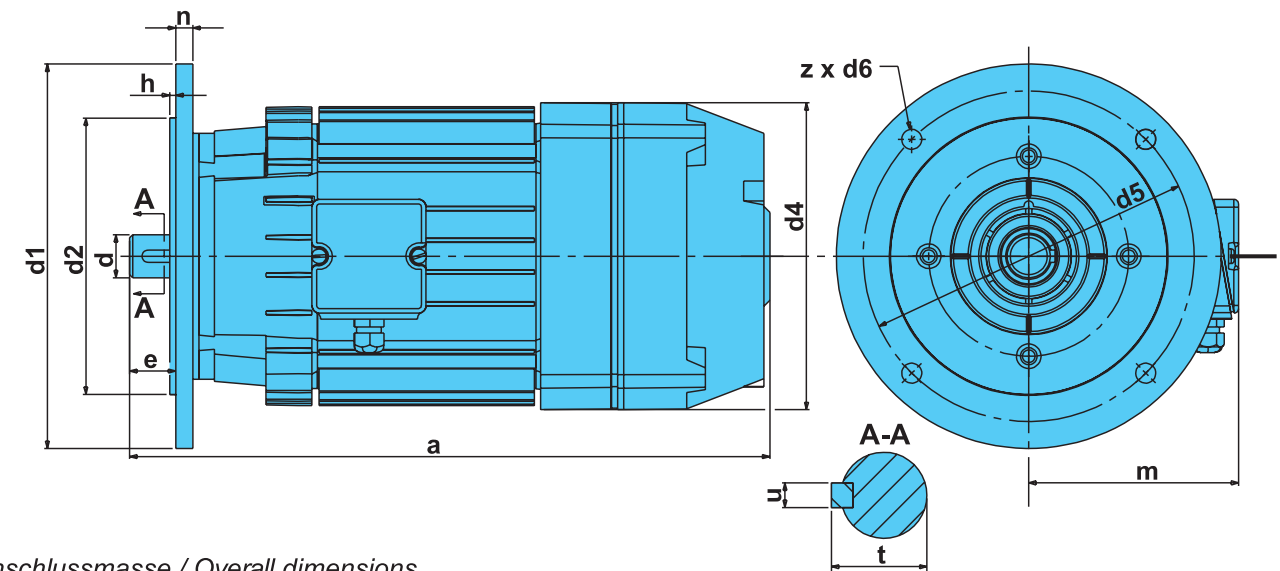
- Modifikationen Spannung nach, 50 Hz / 60 Hz
- Isolierklasse F
- Wellenaxialgang 0,5 ÷ 1,0 mm
- IP 54, IP22 der Bremse (EN60529)
- Flanschausfuehrung-IM B5 (EN 60034-7)
- Moeglichkeit um Thermoschutz einzubauen

Asynchronous electric motors AK series with built-in brake for geared motors

- Voltage modifications, 50 Hz / 60 Hz
- Insulation class F
- Axial shaft run 0,5 ÷ 1,0 mm
- IP 54, brake protection IP 22 (EN 60529)
- Flange joining-IM B5 (EN 60034-7)
- Optional overheat protection



Leistung Power	Typ Type	Drehzahl Speed of revolution	Spannung Voltage	Arbeitsregime Duty cycle		Strom Current	Startmoment Starting torque	Startmoment Braking torque	Gewicht Weight
				CD	SF				
kW	-	min ⁻¹	V	%	sw/h	A	Nm	Nm	kg
0,06/0,25	AK 71B 8/2	660/2700	400	15/25	180	1,2/0,75	2,6/2,6	1,25	11
0,06/0,3	AK 71 8/2					1,2/1,2		1,5	
0,25	AK 71B 4	1350	400/230	40	240	0,85/1,5	5,0	1,3-1,9	11
0,37	AK 71-4					1,3/2,3		2,2-3,0	
0,08/0,25	AK 80B12/4	450/1400	400	20/40	240	0,9/0,85	3,2/3,2	1,3 - 1,6	14,5
0,12/0,37	AK 80-12/4	440/1390		20/40	240	1,3/1,3	4,5/4,0	2,4 - 2,8	
0,13/0,55	AK 80-8/2	550/2550		15/25	160/80	1,4/1,8	4,3/4,3	1,6 - 2,0	
0,12/0,37	AK 80PD12/4	440/1400		25/50	300	1,4/1,3	6,0/5,4	2,4 - 2,8	15
0,18/0,55	AK 80P12/4	440/1400		20/40	240	1,8/1,7	7,2/7,2	3,6 - 4,1	
0,18/0,37	AK 80P12/6	440/900		20/40	240	1,9/1,6	7,2/6,5	3,6 - 4,1	
0,6	AK 80-2	2800	400/230	40	240	1,7/3,0	7,0	1,6 - 2,0	14
0,55	AK 80-4	1350				1,8/3,1	10,0	3,6-4,1	
0,75	AK 80P4	1360				2,1/3,6	14,0	4,4-5,2	15
0,55	AK 80P6	940				2,2/3,8	13,0	4,4 - 5,2	
0,18/0,55	AK 90D12/4	430/1410	400	25/50	300	1,6/1,5	7,0/7,0	3,2-3,8	21
0,25/0,75	AK 90-12/4	430/1410		20/40	240	2,4/2,0	9,0/9,0	4,9-5,7	
0,25/0,75	AK 90PD12/4	420/1410		25/50	300	2,0/1,9	8,0/8,0	4,9-5,7	
0,3/0,9	AK 90PB12/4	420/1410		25/50	300	2,4/2,4	11,0/11,0	6,8-7,8	24
0,37/1,1	AK 90P12/4	420/1410		20/40	240	3,4/3,4	13,5/13,5	6,8-7,8	
1,5	AK 90-2	2620	400/230	40	240	3,9/6,8	11,5	6,8 - 7,8	21
1,1	AK 90-4	1380				2,7/4,7	15,0	6,8 - 7,8	
1,5	AK 90P4	1380				4,1/7,1	30,0	9,0 - 10,0	24
1,1	AK 90P6	890				4,0/6,9	28,0	9,0 - 10,0	
0,37/1,1	AK 100D12/4	390/1390	400	25/50	300	3,2/3,4	12,0/18,0	5,4-6,4	32
0,5/1,5	AK 100-12/4	420/1410		20/40	240	4,5/4,3	17,0/23,0	6,8-7,8	
0,5/1,5	AK 100PD 12/4	390/1400		25/50	300	4,2/5,1	17,0/23,0	6,8-7,8	
0,75/2,2	AK 100P12/4	420/1410		20/40	240	6,4/6,8	25,0/33,0	9,3-10,7	36,5
2,2	AK 100-4	1380		400/230	40	5,2/9,0	35,0	9,3 - 10,7	
1,5	AK 100-6	910				5,5/9,5	36,0	9,3 - 10,7	32
3,0	AK 100P4	1380				6,6/11,5	46,0	13,5-15,5	
2,2	AK 100P6	920				7,0/12,2	41,0	13,5-15,5	36,5



Anschlussmasse / Overall dimensions

Typ Type	Abmessungen / Dimensions										Welle / Shaft		
	a	m	e	h	n	d1	d2	d4	d5	z x d6	d	t	u
AK 71	285	115	30	3.5	9	160	110	140	130	4x9	14	16	5
AK 80/AK 80 P	312	120	40	3.5	10	200	130	160	165	4x11	19	21.5	6
AK 90/AK 90 P	340/370	130	50	3.5	10	200	130	178	165	4x11	24	27	8
AK 100/AK 100 P	416/446	136	60	4.0	11	250	180	200	215	4x13	28	31	8



GEARED
MOTOR
TP...Ex

Explosiongeschützte Getriebegruppen
Serie TP...Ex

- Getriebegruppen mit explosiongeschützten Asynchronmotoren mit konischem Rotor und eingebauter Bremse
- Breite Gama Ausgangsumlauf und Drehmomenten laut Kundenforderung
- Schutz IP 54 (EN 60529)
- Flanschanschluss IM B5 (EN 60034-7)
- Ausführungen mit Thermoschutz IIBT5 (T4) oder IICT5 (T4)
- Leistungsbezogene Ausführungsvarianten
- Speisespannungsmodifikation

Anwendung: Antrieb von Krananlagen und anderen Hubwerken in explosionsgefährdeter Umgebung

Explosion proof reducers and geared motors, TP...Ex series

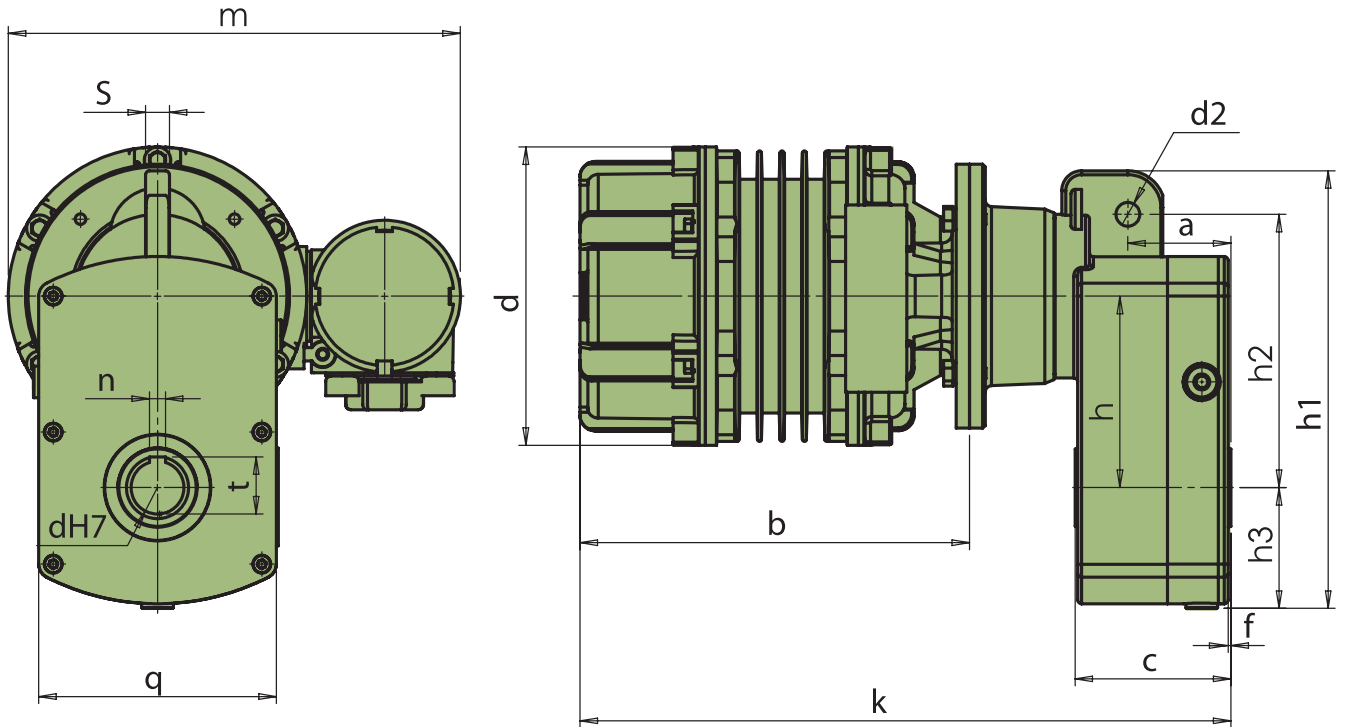
- Geared motors with explosion proof asynchronous electric motors with conical rotor and built-in brake.
- Wide range of output speeds and output torques as per customer requirements
- Protection class IP 54 (EN 60529)
- Flange joining IM B5 (EN 60034-7)
- Execution with thermal and explosion proof protection for groups IIBT5 (T4) or IICT5 (T4)
- Modifications as per electric motor power
- Different supply voltages as per customer request

Application : For traveling mechanisms of cranes and other lifting systems, operating in explosion proof areas



Geared motor TP...Ex

Explosiongeschützte Getriebegruppen Serie TP...Ex\ Explosion proof reducers and geared motors, TP...Ex series



Typ/Type	a	b	c	d	f	κ	m	q	s	d2	h	h1	h2	h3	dH7	n	t
TP 1160 AKK1608Ex	67.5	295	97	226	1.5	466	338	132	14	16	100	243	150	70	30	8	33.3
TP 1160 AKK1605Ex																	
TP 1200 AKK1608Ex	74	295	106	226	2	479	338	152	16	16	125	280	178	79	35	10	38.3
TP 1200 AKK1605Ex																	
TP 1200 AKII1608Ex	78	295	118	226	2	493	338	180	18	18	145	335	207	95	40	12	43.3
TP 1250 AKK1608Ex																	
TP 1250 AKK1605Ex		307				517	350										
TP 1250 AKII1608Ex																	
TP 1250 AKII1608PEX	98	295	142	226	2	516	338	210	16	22	174	386	244	109	50	14	53.8
TP1315 AKK1608Ex																	
TP1315 AKK1605Ex		307				540	350										
TP1315 AKII1608Ex																	
TP 1315AKII1608PEX																	





Geared motor TP...Ex

Geared motor TP..Ex

Explosiongeschützte Getriebegruppen Serie TP...Ex\
Explosion proof reducers and geared motors, TP...Ex series

Explosiongeschützte Getriebegruppen Serie TP..Ex\
Explosion proof reducers and geared motors, TP...Ex series

TP 1160...AKK...Ex; Mmax – 250Nm								
Typ Type	Uebertragungs- zahl	Ausgangs- drehzah	Ausgangs- moment	Elektromoment/ Electric motors				Ausnutzungs- faktor
	Gear ratio	Output speed	Output torque	Leistung Power	Drehzahl Speed of revolution	CD	SF	Service factor
	-	min ⁻¹	N.m	kW	min ⁻¹	%	h ⁻¹	f _s
TP1160 58 AKK1608-6Ex	57.88	15.89	142.69	0.25	920	40	240	1.75
TP1160 56 AKK1608-6Ex	56.31	16.34	138.82	0.25	920	40	240	1.80
TP1160 49 AKK1608-6Ex	49.12	18.73	121.10	0.25	920	40	240	2.06
TP1160 48 AKK1608-6Ex	48.69	18.90	120.04	0.25	920	40	240	2.08
TP1160 47 AKK1608-6Ex	46.63	19.73	114.96	0.25	920	40	240	2.17
TP1160 45 AKK1608-6Ex	44.87	20.50	110.62	0.25	920	40	240	2.26
TP1160 43 AKK1608-6Ex	43.41	21.19	107.02	0.25	920	40	240	2.33
TP1160 39 AKK1608B6Ex	39.23	23.45	143.14	0.37	920	40	240	1.75
TP1160 36 AKK1608B6Ex	35.95	25.59	131.17	0.37	920	40	240	1.90
TP1160 35 AKK1608B6Ex	35.57	25.86	129.78	0.37	920	40	240	1.93
TP1160 33 AKK1608B6Ex	33.04	27.85	120.55	0.37	920	40	240	2.07
TP1160 30 AKK1608B6Ex	30.25	30.41	110.37	0.37	920	40	240	2.26
TP1160 29 AKK1608B6Ex	28.66	32.10	104.57	0.37	920	40	240	2.39
TP1160 29 AKK1608-12/4Ex		13.96/47.2	162.4/144.5	0.25/0.75	400/1350	20/40	240	1.53/1.73
TP1160 28 AKK1608B6Ex	27.87	33.01	101.69	0.37	920	40	240	2.46
TP1160 28 AKK1608-12/4Ex		14.35/48.44	158.0/140.5	0.25/0.75	400/1350	20/40	240	1.58/1.78
TP1160 27 AKK1608P6Ex	26.62	34.56	144.38	0.55	920	40	240	1.73
TP1160 27 AKK1608-12/4Ex		15.02/50.71	150.9/134.2	0.25/0.75	400/1350	20/40	240	1.66/1.86
TP1160 22 AKK1608P6Ex	22.09	41.65	119.81	0.55	920	40	240	2.08
TP1160 22 AKK1608-12/4Ex		18.1/61.11	125.2/111.3	0.25/0.75	400/1350	20/40	240	1.99/2.25
TP1160 21 AKK1608P6Ex	20.52	44.83	111.29	0.55	920	40	240	2.24
TP1160 21 AKK1608-12/4Ex		19.50/65.79	116.3/103.4	0.25/0.75	400/1350	20/40	240	2.15/2.42
TP1160 20 AKK1608P6Ex	20.19	45.56	109.50	0.55	920	40	240	2.28
TP1160 16 AKK1608P6Ex	16.26	56.58	88.19	0.55	920	40	240	2.83
TP1160 16 AKK1605-6Ex		55.96	121.58	0.75	910	40	240	2.06
TP1160 16 AKK1605-4Ex		83.64	119.32	1.1	1360	40	240	2.10

TP 1200...AKK...Ex; Mmax – 500 Nm								
Typ Type	Uebertragungs- zahl	Ausgangs- drehzahl	Ausgangs- moment	Elektromoment/ Electric motors				Ausnutzungs- faktor
	Gear ratio	Output speed	Output torque	Leistung Power	Drehzahl Speed of revolution	CD	SF	Service factor
	-	min ⁻¹	N.m	kW	min ⁻¹	%	h ⁻¹	f _s
TP1200 84 AKK1608-6Ex	84.40	10.90	208.07	0.25	920	40	240	2.40
TP1200 70 AKK1608B6Ex	69.56	13.22	253.80	0.37	920	40	240	1.97
TP1200 69AKK1608B6Ex	69.51	13.23	253.62	0.37	920	40	240	1.97
TP1200 57AKK1608B6Ex	57.29	16.06	209.03	0.37	920	40	240	2.39
TP1200 57AKK1608-12/4Ex		6.98/23.56	324.8/288.7	0.25/0.75	400/1350	20/40	240	1.54/1.73
TP1200 54 AKK1608P6Ex	53.74	17.12	291.47	0.55	920	40	240	1.72
TP1200 54AKK1608-12/4Ex		7.44/25.12	304.7/270.9	0.25/0.75	400/1350	20/40	240	1.64/1.85
TP1200 50 AKK1608P6Ex	49.65	18.53	269.29	0.55	920	40	240	1.85
TP1200 50AKK1608-12/4Ex		8.1/27.2	281.5/250.2	0.25/0.75	400/1350	20/40	240	1.78/2.0
TP1200 44 AKK1608P6Ex	44.29	20.77	240.21	0.55	920	40	240	2.08
TP1200 44AKK1608-12/4Ex		9.03/30.48	251.1/223.2	0.25/0.75	400/1350	20/40	240	2.0/2.24
TP1200 43 AKK1608P6Ex	42.70	21.54	231.59	0.55	920	40	240	2.15
TP1200 43AKK1608-12/4Ex		9.37/31.62	242.1/215.2	0.25/0.75	400/1350	20/40	240	2.06/2.32
TP1200 41 AKK1608P6Ex	40.92	22.48	221.94	0.55	920	40	240	2.25
TP1200 41AKK1608-12/4Ex		9.78/32.99	232.1/206.2	0.25/0.75	400/1350	20/40	240	2.15/2.42
TP1200 40 AKK1608P6Ex	39.72	23.16	215.43	0.55	920	40	240	2.32
TP1200 40 AKK1605-4Ex		34.24	291.47	1.1	1360	40	240	1.72
TP1200 35 AKK1608P6Ex	35.19	26.14	190.86	0.55	920	40	240	2.62
TP1200 35 AKK1605-6Ex		25.86	263.13	0.75	910	40	240	1.90
TP1200 35 AKK1605-4Ex		38.65	258.23	1.1	1360	40	240	1.94
TP1200 18 AK II 1608-6Ex	18	51.11	266.26	1.5	920	40	240	1.88



Explosiongeschützte Getriebegruppen Serie TP...Ex/
Explosion proof reducers and geared motors, TP...Ex series

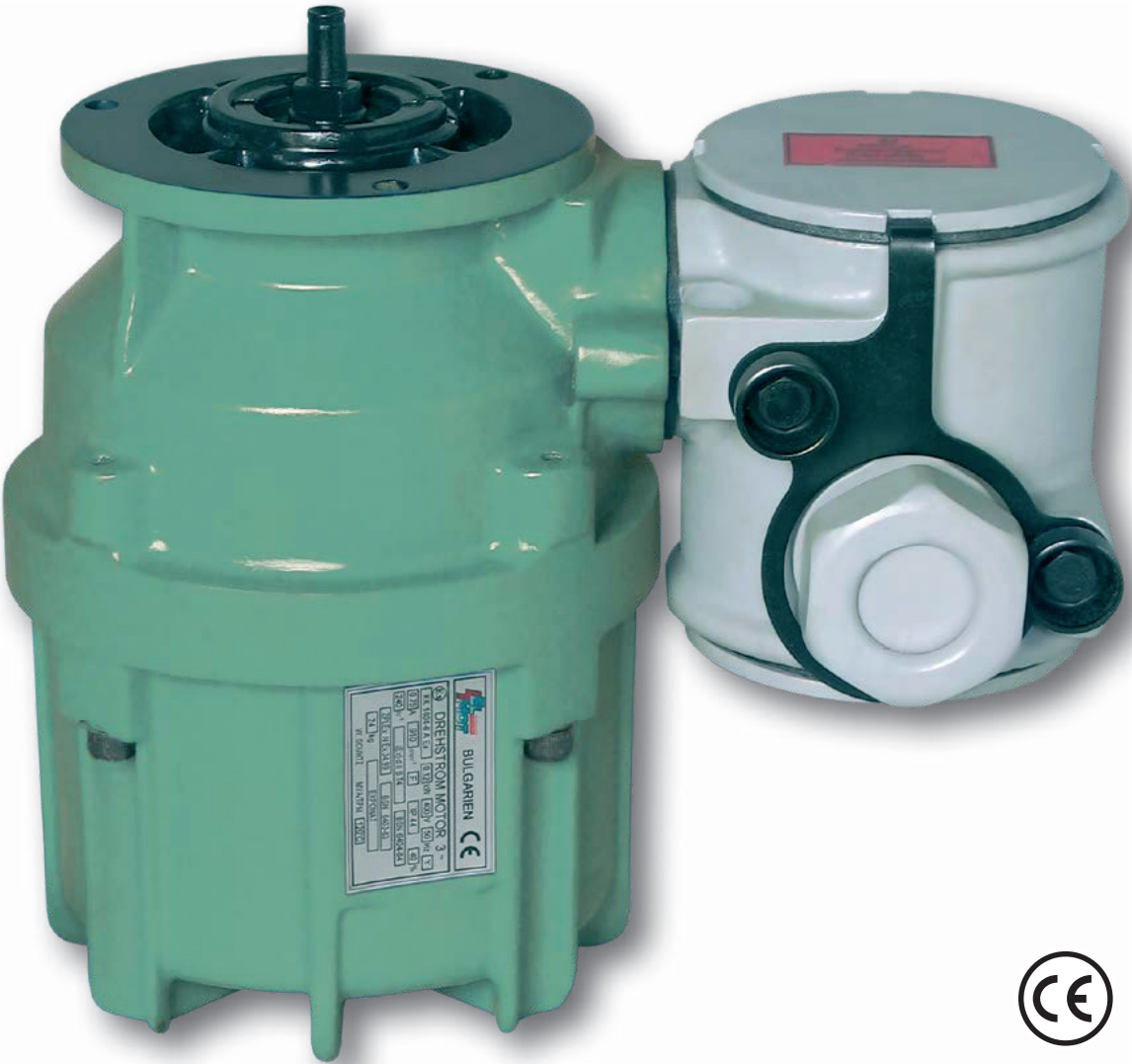
TP 1250...AKK ...Ex/AK II/AK/ ...Ex; Mmax – 800Nm								
Typ Type	Uebertragungs- zahl	Ausgangs- drehzahl	Ausgangs- moment	Elektromoment/ Electric motors				Ausnutzungs- faktor
	Gear ratio	Output speed	Output torque	Leistung Power	Drehzahl Speed of revolution	CD	SF	Service factor
	-	min ⁻¹	N.m	kW	min ⁻¹	%	h ⁻¹	f _s
TP1250 88 AKK1608B6Ex	87.53	10.51	319.37	0.37	920	40	240	2.50
TP1250 88 AKK1608-12/4Ex		4.57/15.42	496.3/441.2	0.25/0.75	400/1350	20/40	240	1.61/1.81
TP1250 72 AKK1608P6Ex	72.30	12.72	392.14	0.55	920	40	240	2.04
TP1250 72 AKK1608-12/4Ex		5.53/18.67	410.0/364.4	0.25/0.75	400/1350	20/40	240	1.95/2.2
TP1250 66 AKK1608P6Ex	65.82	13.97	356.99	0.55	920	40	240	2.24
TP1250 66 AKK1608-12/4Ex		6.08/20.51	373.2/331.8	0.25/0.75	400/1350	20/40	240	2.14/2.41
TP1250 61 AKK1608P6Ex	60.87	15.11	330.14	0.55	920	40	240	2.42
TP1250 61 AKK1608-12/4Ex		6.57/22.18	345.0/306.8	0.25/0.75	400/1350	20/40	240	2.32/2.60
TP1250 61 AKK1605-6Ex		14.95	454.63	0.75	910	20/40	240	1.76
TP1250 61 AKK1605-4Ex		22.34	446.78	1.1	1360	20/40	240	1.79
TP1250 54 AKK1605-6Ex	54.37	16.74	406.70	0.75	910	20/40	240	1.97
TP1250 54 AKK1605-4Ex		25.01	399.07	1.1	1360	20/40	240	2.00
TP1250 52 AKK1605-6Ex	51.99	17.5	388.89	0.75	910	20/40	240	2.06
TP1250 52 AKK1605-4Ex		26.16	381.60	1.1	1360	20/40	240	2.10
TP1250 48 AKK1605-6Ex	48.24	18.86	360.83	0.75	910	20/40	240	2.22
TP1250 48 AKK1605-4Ex		28.19	354.08	1.1	1360	20/40	240	2.26
TP1250 46 AKK1605-6Ex	45.78	19.88	342.31	0.75	910	20/40	240	2.34
TP1250 46 AKK1605-4Ex		29.70	335.94	1.1	1360	20/40	240	2.38
TP1250 27 AKII 1608-6Ex	26.59	34.60	393.32	1.5	920	40	240	2.03
TP1250 20 AKII 1608P6Ex	20	46.00	433.90	2.2	920	40	240	1.84
TP1250 16 AKII 1608P6Ex	15.71	58.56	340.83	2.2	920	40	240	2.34
TP 1315...AKK ...Ex /AKII/AK/...Ex; Mmax- 1200Nm								
TP1315 86 AKK1608P6Ex	86.03	10.69	466.60	0.55	920	40	240	2.57
TP1315 86 AKK1608-12/4Ex		4.65/15.69	487.8/433.6	0.25/0.75	400/1350	20/40	240	2.46/2.77
TP1315 86 AKK1605-6Ex		10.58	643.28	0.75	910	40	240	1.86
TP1315 86 AKK1605-4Ex		15.81	631.46	1.1	1360	40	240	1.90
TP1315 78 AKK1605-4Ex	77.86	17.46	571.49	1.1	1360	40	240	2.10
TP1315 71 AKK1605-6Ex	70.56	12.90	527.79	0.75	910	40	240	2.27
TP1315 46 AKII 1608-6Ex	46.24	19.90	683.99	1.5	920	40	240	1.75
TP1315 45 AKII1608-6Ex	44.98	20.45	665.35	1.5	920	40	240	1.80
TP1315 41 AKII1608-6Ex	41.35	22.25	611.65	1.5	920	40	240	1.96
TP1315 35 AKII1608-6Ex	35.32	26.05	522.45	1.5	920	40	240	2.30
TP1315 30 AKII1608P6Ex	29.60	31.08	642.17	2.2	920	40	240	1.87
TP1315 27 AKII1608P6Ex	26.79	34.34	581.21	2.2	920	40	240	2.06

Asynchrone Elektromotoren Typ AKK-
Ex mit eingebauter Bremse fuer expo-
siongeschützte Mechanismen

- Modifikation nach Spannung; 50/60 Hz
- Isolationsklasse F
- Axialzug der Welle 0.5 - 1.0 mm
- IP 44 (EN60529)
- Flanschausführung
- Eingebauter Thermoschutz
- Explosiongeschützte Ausführung – Ex(d) IIB T5, Ex(d) IIC T5 (EN5018)

Asynchronous electric motors with
built-in brake for explosion proof travel
mechanisms, AKK-Ex series

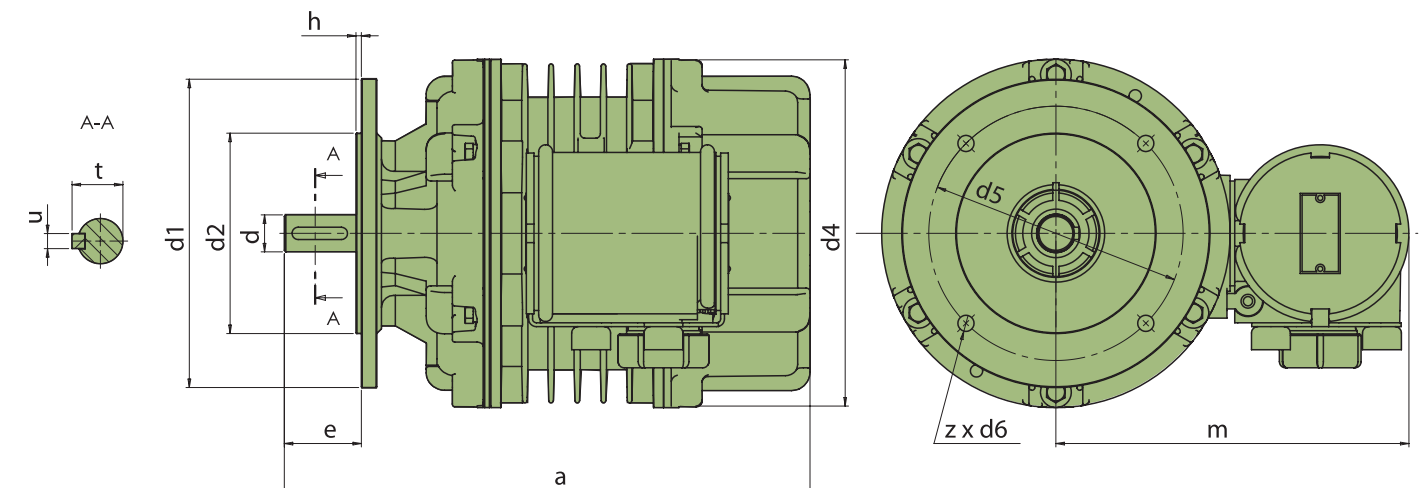
- Modification as per ; 50/60 Hz
- Insulation class F
- Axial stroke of shaft 0.5 - 1.0 mm
- IP 44 (EN60529)
- Flange execution
- Built-in thermal protection
- Explosion proof execution – Ex(d) IIB T5, Ex(d) IIC T5 (EN5018)



Asynchrone Elektromotoren Typ AKK-Ex mit eingebauter Bremse fuer explosionsgeschützte Mechanismen\ Asynchronous electric motors with built-in brake for explosion proof travel mechanisms, AKK-Ex series

Leistung Power	Typ Type	Drehzahl Rotation speed	Spannung Voltage	Arbeitsregime Duty cycle		Strom Current	Startmoment Starting torque	Brems- moment Braking torque	Gewicht Weight
				CD	SF				
kW	-	min ⁻¹	V	%	h ⁻¹	A	Nm	Nm	kg
0.18	AKK1305-6Ex	910	400	40	240	1.0	4.2	1.1	27
0.25	AKK1305P6Ex	900	400	40	240	1.1	5.2	2.2	27
0.18	AKK1305B4Ex	1420	400	40	240	1.0	3.0	1.0	26
0.25	AKK1305-4Ex	1390	400	40	240	1.1	4.1	1.1	27
0.37	AKK1305P4Ex	1360	400	40	240	1.3	6.0	2.2	27
0.06/0.12	AKK1305-12/6Ex	420/920	400	20/40	240	1.1/0.9	2.3/2.6	1.1	27
0.06/0.18	AKK1305-12/4Ex	420/1420	400	20/40	240	1.1/1.0	2.3/3.5	1.1	27
0.25	AKK1608-6Ex	940	400	40	240	1.1	6.0	2.2	46.5
0.37	AKK1608B6Ex	940	400	40	240	1.6	6.0	3.3	46.5
0.12/0.25	AKK1608B12/6Ex	400/890	400	20/40	240	1.3/1.1	6.0/5.5	2.2	46.5
0.12/0.37	AKK1608B12/4Ex	400/1380	400	20/40	240	1.3/1.2	6.0/5.0	2.2	46.5
0.37	AKK1608-4Ex	1410	400	40	240	1.2	15.0	3.3	46.5
0.55	AKK1608P6Ex	940	400	40	240	1.1	6.0	2.2	47
	AKK I 1608P6Ex								
0.25/0.75	AKK1608-12/4Ex	400/1350	400	20/40	240	2.1/2.0	11.0/11.0	4	47
	AKK I 1608-12/4Ex								
0.25/0.55	AKK1608-12/6Ex	400/920	400	20/40	240	2.1/2.2	11.0/14.0	4	47
	AKK I 1608-12/6Ex								
0.75	AKK1605-6Ex	910	400	40	240	3.3	16.5	8.0	41
	AKK I 1605-6Ex								
1.1	AKK1605-4Ex	1360	400	40	240	3.6	15.0	8.0	41
	AKK I 1605-4Ex								
1.5	AKK1608-6Ex	910	400	40	240	3.8	30	10.5	47
2.2	AKK1608P6Ex	910	400	40	240	6.5	45	17	54
0.5/1.5	AKK1609-12/4Ex	460/1410	400	20/40	240	3.8/3.5	17.5/20.5	11	54

Anschlussmasse / Overall dimensions



Typ / Type	Abmessungen / Dimensions									Welle / Shaft		
	a	e	h	m	d1	d2	d4	d5	z x d6	d	t	u
AKK1305 Ex	302	40	3.5	202	200	130	170	165	4x11	19	21.5	6
AKK1608-6Ex	335	40	3.5	225	200	130	226	165	4x10.5	19	21.5	6
AKK1608B6Ex												
AKK1608B12/4Ex												
AKK1608-4Ex												
AKK I 1608P6Ex												
AKK I 1608-12/4Ex												
AKK I 1608-12/6Ex	345	50	3.5	225	200	130	226	165	4x10.5	24	27	8
AKK I 1605-6Ex												
AKK I 1605-4Ex												
AKK1608P6AEx												
AKK1608-12/4Ex												
AKK1608-12/6Ex												
AKK1605-6Ex	367	60	4	225	250	180	226	215	4x15	28	31	8
AKK1605-4Ex												
AKK1608-6Ex												
AKK1608P6Ex												
AKK1609-12/4Ex												

Elastische Kupplungen

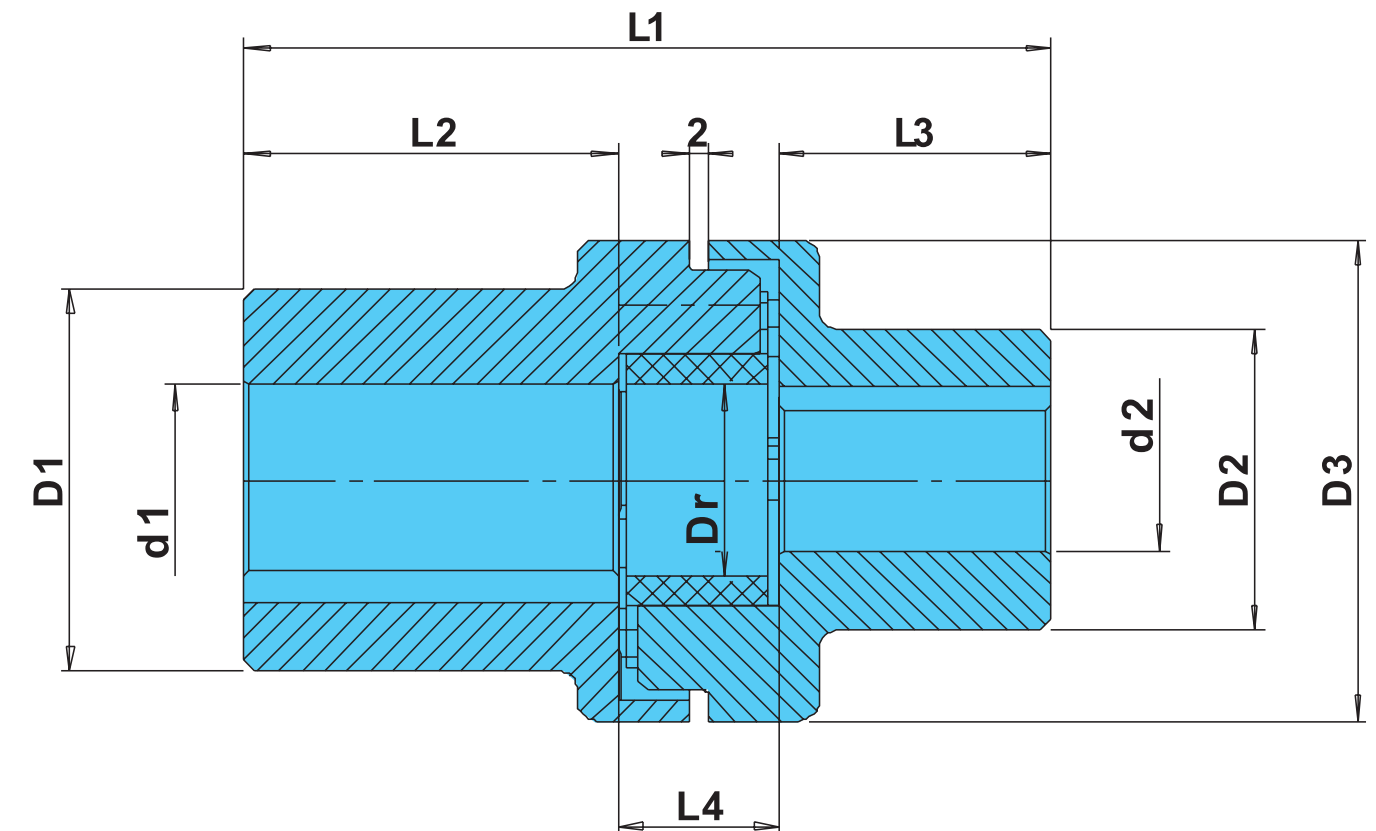
Die elastische Kupplungen sind Elemente, aus Antriebssystem der Maschinen, die zur Verbindung der Wellen vorgesehen sind. Sie arbeiten bei einer mittleren Belastung, mittlerem oder hohem Arbeitsregime oder Einschaltungs-
zahl pro Stunde. Sie sind aus Aluminium-
legierung hergestellt und der elastische
Element ist aus Oelfestvulkanisat

Elastic Couplings

The elastic couplings are elements of the machine operating system, which are designed for shaft coupling. The couplings operate at medium load and at medium or high motor service factor or frequent motor switches. The couplings are made of aluminum alloy and the elastic component is made of oil resistant vulcanizate.



Elastische Kupplungen / Elastic Couplings



Typ / Type	Ausgangs-moment Maximum torque M _{max}	G.D².10 ⁻⁴	Abmessungen / Dimensions										Gewicht Weight
			d1	d2	L1	L2	L3	L4	D1	D2	D3	Dr	
	N.m	kg.m²	mm										
TP 160.71	250	0.35	14	11	55	20.0	19.0	16	30	30	48	19	0.115
TP 160.80	375	0.60	19	11	76	41.0	19.0	16	38	30	48	19	0.175
TP 200.71	250	0.35	14	14	60	22.0	22.0	16	30	30	48	19	0.180
TP 200.80	375	0.60	19	14	80	37.0	27.0	16	38	30	48	19	0.210
TP 200.90	745	2.00	24	14	80	41.5	20.5	18	48	34	65	29	0.310
TP 250.80	375	1.50	19	16	80	41.5	20.5	18	42	34	65	29	0.270
TP 250.90	745	2.00	24	16	80	41.5	20.5	18	48	34	65	29	0.320
TP 250.100	1556	3.30	28	16	90	51.5	20.5	18	58	34	65	29	0.400
TP 315.90	745	2.00	24	19	80	41.5	20.5	18	48	42	65	29	0.310
TP 315.100	1556	3.30	28	19	90	51.5	20.5	18	58	42	65	29	0.420

Komponenten / Components

Parts Teile		TP 160/TP 160L	TP 200/TP 200L	TP 250/TP 250L	TP 315
1.	Coupling Kuplung	71-80	71-80-90	80-90-100	90-100
2.	Flange Flansch	Ø 160-200	Ø 160-200	Ø 200-250	Ø 200-250
3.	Feather DIN 6885 Passfeder DIN 6885	4x4x18	5x5x20	5x5x20	6x6x25
4.	Seal DIN 3760 Dichtung DIN 3760	12x24x7	15x27x7	17x30x7	20x32x7
5.	Ball bearing SKF Lager SKF	6201	6202	6203	6004
6.	Corpus Korpus	2092926/2886896	2092753/2092250	2092774/2092989	2092711
7.	Seal Dichtung DIN 3760				
8.	Lid Deckel	2092947/2886880	2092769/2092245	2092780/2092973	2092727
9.	Input shaft Eingangswelle				
10.	Ball bearing SKF Lager SKF	6001	6202	6202	6202
11.	Ball bearing SKF Lager SKF	6201	6302	6303	6204
12.	Shaft I Welle I				
13.	Gear II Zahnrad II				
14.	Ball bearing SKF Lager SKF	6201	6302	6304	6305
15.	Shaft II Welle II				
16.	Output shaft Ausgangswelle				
17.	Seal DIN 3760 Dichtung DIN 3760	45x60x7	50x65x8	60x80x8	70x90x10
18.	Ball bearing SKF Lager SKF	16009	16010	16012	16014
19.	Screw DIN 912 Schraube DIN 912	M 8x50	M 8x55	M 8x55	M 8x70
20.	Stopper Verschlusschraube	M 18x1.5	M 18x1.5	M 18x1.5	M 18x1.5
21.	Pin Stift	8x30	8x30	8x30	8x30
22.	Feather Passfeder	-	-	2210784	2210632
23.	Gear III Zahnrad III				
24.	Ball bearing SKF Lager SKF	6202	6204	6304	6305
25.	Gear I Zahnrad I				
26.	Ball bearing SKF Lager SKF	6001	6202	6203	6204
27.	Screw DIN 912 Schraube DIN 912	M 8x20	M 8x25	M 8x25	M 8x25

