

**Flameproof motors for mining**

# BARTEC VARNOST

The plant itself came into being in 1957 as one of the small working units of the Zagorje coal mine. Five years later, in 1962, it became a separate company called "TEVE VARNOST". Numerous organizational restructurations took place during the following years and in 1997 the company was taken over by BARTEC to become "BARTEC VARNOST".

## BARTEC Motors and electrical equipment

BARTEC develops and manufactures electric motors and electrical equipment for safe and reliable solutions in power, lighting, control and monitoring applications.

### Our production program includes:

- Electric motors
- Special motors and special solutions
- Switches and controllers
- Lighting systems

All products can be supplied for potentially explosive atmospheres, wet environments or tailored to our customers' requirements.



BARTEC VARNOST, Zagorje

## Reservation

Technical data subject to change without notice. No claims for damages arising from alterations, errors or misprints shall be allowed.

**Note:** All datas and dimensions in this catalogue are informative and will be specified during quotation.



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*Cast iron enclosure*

**➔ Explosion protection**

**Ex protection type**

- ⊕ I M2 Ex de I Mb
- ⊕ I M2 Ex d I Mb
- PB Ex d I Mb

**➔ Technical data**

**Frame sizes**

71-80-90-100-112-132-160-180-200-225-250-280-315

**Power**

0.18 kW to 200 kW

**Voltage**

380 V to 1140 V

**Operating duty**

S1 to S10, ready for operating with frequency inverters

**Frequency**

50 Hz and 60 Hz

**Single speed**

2, 4, 6, 8 pole

**Pole changing**

4/2, 8/4, 6/4, 8/6, other versions on request

**Insulation class**

F and H

**Protection class**

IP 55, possible up to IP 65

**Ambient temperature**

-20 °C to +40 °C

**Thermal protection in winding**

3 x PTC, possible also PTO or Pt100

**Thermal protection in bearings**

PTC, PTO or Pt100

**Anticondensation protection**

Heaters in winding AC 220 V

**Additional regreasing**

grease nipples

**Cooling**

air, TEFC

**Material of enclosure**

Cast iron

**Cable glands**

1 x for power supply, 1 x for protection, Ex e or Ex d

**Certifications**

Type	ATEX		IECEX		CU TR certificate Russia, Belarussia, Kazakhstan RU-C-SI-F508.B.00309
	BVS 15 ATEX E 037 X	FTZU 14 ATEX 0060X	IECEX BVS 15.0031X	IECEX FTZU 15.0006X	
4KTCR 71	■		■		■
4KTCR 80	■		■		■
4KTCR 90	■		■		■
4KTCR 100	■		■		■
4KTCR 112	■		■		■
4KTCR 132	■		■		■
4KTCR 160	■		■		■
4KTCR 180	■		■		■
4KTCR 200	■		■		■
4KTCR 225	■		■		■
5KTCR 250					■
5KTCR 280		■		■	■
5KTCR 315					■



<b>Technical data for 2 pole motors</b>										
Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>4 KTCR 71 A-2</b>	0.37	2800	1.06	0.83	0.38	0.37	4.2	2.8	59.5	0.86
<b>4 KTCR 71 B-2</b>	0.55	2805	1.32	1.05	0.48	0.46	5.5	3.1	70.0	0.86
<b>4 KTCR 80 A-2</b>	0.75	2790	1.70	1.35	0.61	0.59	5.4	2.6	72.0	0.89
<b>4 KTCR 80 B-2</b>	1.1	2790	2.35	1.90	0.86	0.82	6.1	2.9	77.0	0.87
<b>4 KTCR 90 S-2</b>	1.5	2830	3.25	2.59	1.18	1.14	6.3	2.8	77.0	0.87
<b>4 KTCR 90 L-2</b>	2.2	2845	4.40	3.52	1.60	1.54	6.9	2.65	82.0	0.88
<b>4 KTCR 100 L-2</b>	3	2865	6.00	4.77	2.17	2.10	7.1	2.9	83.5	0.87
<b>4 KTCR 112 M-2</b>	4	2890	7.80	6.21	2.82	2.74	7.6	2.95	84.5	0.88
<b>4 KTCR 132 SA-2</b>	5.5	2910	10.8	8.50	3.90	3.79	6.6	2.8	84.5	0.88
<b>4 KTCR 132 SB-2</b>	7.5	2925	14.5	11.4	5.20	5.09	7.9	3.1	85.5	0.89
<b>4 KTCR 160 MA-2</b>	11	2840	22.3	17.9	8.10	7.82	6.9	3.0	80.6	0.88
<b>4 KTCR 160 MB-2</b>	15	2940	28.5	22.7	10.3	10.0	7.7	3.2	83.0	0.92
<b>4 KTCR 160 L-2</b>	18	2945	32.4	26.1	11.8	11.4	8.0	3.0	90.1	0.91
<b>4 KTCR 180 M-2</b>	22	2930	39.0	31.0	14.1	13.7	7.2	2.9	92.0	0.89
<b>4 KTCR 200 LA-2</b>	30	2930	53.0	42.3	19.2	18.6	7.3	2.8	93.0	0.88
<b>4 KTCR 200 LB-2</b>	37	2930	64.0	51.3	23.3	22.5	7.3	2.9	93.5	0.89
<b>4 KTCR 225 M-2</b>	45	2945	79.0	63.2	28.7	27.7	7.2	2.6	93.5	0.88
<b>5 KTCR 250 M-2</b>	55	2970	95.0	75.6	34.4	33.3	7.5	3.2	94.4	0.89
<b>5 KTCR 280 S-2</b>	75	2980	131.0	104.0	47.3	46.0	8.0	3.0	94.5	0.88
<b>5 KTCR 280 M-2</b>	90	2980	152.0	122.0	55.3	53.3	8.0	2.9	95.0	0.90
<b>5 KTCR 315 S-2</b>	110	2970	194.0	155.0	70.3	68.0	6.0	2.4	95.5	0.86
<b>5 KTCR 315 MA-2</b>	132	2970	228.0	181.0	82.4	80.0	6.5	2.8	95.5	0.88
<b>5 KTCR 315 MB-2</b>	160	2975	270.0	215.0	97.5	94.7	6.9	2.4	95.7	0.90
<b>5 KTCR 315 MC-2</b>	200	2980	335.0	270.0	121.7	117.5	6.9	2.3	95.8	0.90



## Technical data for 4 pole motors

Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
4 KTCR 71 A-4	0.25	1355	0.75	0.61	0.30	0.26	3.8	2.5	59.5	0.80
4 KTCR 71 B-4	0.37	1350	1.05	0.84	0.42	0.37	3.8	2.9	63.0	0.81
4 KTCR 80 A-4	0.55	1410	1.38	1.09	0.55	0.48	4.6	2.7	72.0	0.81
4 KTCR 80 B-4	0.75	1400	1.80	1.43	0.71	0.63	5.0	2.6	76.0	0.80
4 KTCR 90 S-4	1.1	1410	2.40	1.92	0.96	0.84	5.4	2.4	79.0	0.84
4 KTCR 90 L-4	1.5	1405	3.25	2.61	1.31	1.14	5.8	2.6	79.0	0.84
4 KTCR 100 LA-4	2.2	1405	4.80	3.83	1.92	1.68	5.1	2.2	79.0	0.84
4 KTCR 100 LB-4	3	1400	6.40	5.10	2.55	2.24	5.3	2.3	81.0	0.84
4 KTCR 112 M-4	4	1430	8.20	6.48	3.24	2.88	6.6	2.8	85.0	0.84
4 KTCR 132 S-4	5.5	1435	10.9	8.75	4.37	3.82	5.5	2.7	84.5	0.86
4 KTCR 132 M-4	7.5	1445	14.8	11.7	5.86	5.19	6.5	2.9	87.0	0.85
4 KTCR 160 M-4	11	1470	22.0	17.6	8.81	7.72	6.7	2.8	87.0	0.83
4 KTCR 160 L-4	15	1460	29.0	23.3	11.7	10.2	6.3	2.7	87.5	0.85
4 KTCR 180 M-4	18.5	1460	35.0	27.7	13.8	12.3	6.5	2.3	92.0	0.84
4 KTCR 180 L-4	22	1455	40.0	31.9	16.0	14.0	6.4	2.3	92.5	0.86
4 KTCR 200 L-4	30	1460	56.0	44.9	22.5	19.6	6.2	3.0	93.0	0.83
4 KTCR 225 S-4	37	1465	68.0	54.8	27.4	23.8	6.3	2.8	93.5	0.84
4 KTCR 225 M-4	45	1470	83.0	66.2	33.1	29.1	6.2	2.8	94.0	0.83
5 KTCR 250 M-4	55	1475	98.0	78.2	39.1	34.4	6.1	2.5	94.5	0.86
5 KTCR 280 S-4	75	1475	135.0	106.1	53.1	47.4	6.1	2.8	95.0	0.86
5 KTCR 280 M-4	90	1475	158.0	125.9	62.9	55.4	6.5	2.9	95.0	0.87
5 KTCR 315 S-4	110	1485	193.0	153.1	76.5	67.7	6.0	2.4	95.5	0.87
5 KTCR 315 MA-4	132	1485	232.0	183.1	91.6	81.4	6.5	2.6	95.8	0.87
5 KTCR 315 MB-4	160	1480	282.0	224.0	112.0	98.9	7.0	2.6	96.0	0.86
5 KTCR 315 MC-4	200	1485	345.0	275.0	126.0	121.0	6.9	2.6	95.8	0.87



<b>Technical data for 6 pole motors</b>										
Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>4 KTCR 71 A-6</b>	0.18	930	0.67	0.54	0.24	0.24	3.1	2.3	60.0	0.65
<b>4 KTCR 71 B-6</b>	0.25	940	0.85	0.68	0.31	0.30	3.7	2.5	64.0	0.67
<b>4 KTCR 80 A-6</b>	0.37	925	1.1	0.88	0.40	0.39	3.6	2.5	67.0	0.72
<b>4 KTCR 80 B-6</b>	0.55	915	1.5	1.20	0.55	0.53	4.1	2.5	72.0	0.74
<b>4 KTCR 90 S-6</b>	0.75	915	2.1	1.68	0.76	0.74	3.7	2.1	70.0	0.74
<b>4 KTCR 90 L-6</b>	1.1	915	3.0	2.40	1.09	1.05	4.1	2.3	73.0	0.73
<b>4 KTCR 100 L-6</b>	1.5	930	3.7	2.96	1.35	1.30	4.7	2.3	76.0	0.77
<b>4 KTCR 112 M-6</b>	2.2	960	5.0	4.00	1.82	1.75	6.1	2.7	82.0	0.78
<b>4 KTCR 132 S-6</b>	3	975	6.6	5.28	2.40	2.32	6.3	2.5	83.5	0.79
<b>4 KTCR 132 MA-6</b>	4	960	8.8	7.04	3.20	3.09	6.3	2.9	83.0	0.80
<b>4 KTCR 132 MB-6</b>	5.5	955	11.8	9.44	4.29	4.14	6.1	2.9	83.5	0.81
<b>4 KTCR 160 M-6</b>	7.5	970	15.8	12.6	5.75	5.54	6.7	2.4	86.0	0.80
<b>4 KTCR 160 L-6</b>	11	965	23.5	18.8	8.55	8.25	6.0	2.3	88.5	0.77
<b>4 KTCR 180 L-6</b>	15	965	31.0	24.8	11.3	10.9	5.2	2.3	89.5	0.78
<b>4 KTCR 200 LA-6</b>	18.5	965	36.0	28.8	13.1	12.6	6.0	2.4	91.0	0.81
<b>4 KTCR 200 LB-6</b>	22	965	43.0	34.4	15.6	15.1	6.0	2.4	91.5	0.81
<b>4 KTCR 225 M-6</b>	30	975	56.0	44.8	20.4	19.6	5.8	2.5	92.5	0.83
<b>5 KTCR 250 M-6</b>	37	985	69.0	55.2	25.1	24.2	6.0	2.6	93.5	0.83
<b>5 KTCR 280 S-6</b>	45	985	82.0	65.6	29.8	28.8	6.3	2.7	94.5	0.84
<b>5 KTCR 280 M-6</b>	55	985	101.0	80.8	36.7	35.4	6.0	2.8	94.5	0.84
<b>5 KTCR 315 S-6</b>	75	980	140.0	112.0	50.9	49.1	5.9	2.8	95.0	0.82
<b>5 KTCR 315 MA-6</b>	90	985	163.0	130.4	59.3	57.2	5.1	2.9	95.5	0.84
<b>5 KTCR 315 MB-6</b>	110	990	198.0	158.4	72.0	69.5	6.5	2.4	91.5	0.88
<b>5 KTCR 315 L-6</b>	132	990	238.0	190.4	86.5	83.5	6.8	2.4	90.5	0.88



## Technical data for 8 pole motors

Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
4 KTCR 71 A-8	0.09	680	0.74	0.59	0.27	0.26	2.0	2.1	38.0	0.51
4 KTCR 71 B-8	0.12	655	0.59	0.48	0.22	0.21	2.4	2.1	45.0	0.71
4 KTCR 80 A-8	0.18	680	0.73	0.58	0.26	0.25	2.9	2.2	61.0	0.65
4 KTCR 80 B-8	0.25	680	1.01	0.81	0.37	0.36	3.1	2.3	58.0	0.68
4 KTCR 90 S-8	0.37	685	1.38	1.10	0.50	0.48	3.0	2.0	66.0	0.65
4 KTCR 90 L-8	0.55	685	1.93	1.54	0.70	0.68	3.1	2.1	69.0	0.66
4 KTCR 100 LA-8	0.75	690	2.53	2.02	0.92	0.89	3.5	2.1	69.0	0.69
4 KTCR 100 LB-8	1.1	695	3.58	2.86	1.30	1.25	3.8	2.2	70.0	0.70
4 KTCR 112 M-8	1.5	710	4.57	3.65	1.66	1.60	4.3	2.5	78.0	0.67
4 KTCR 132 S-8	2.2	710	6.05	4.84	2.20	2.12	4.3	2.2	79.0	0.74
4 KTCR 132 M-8	3.0	710	7.92	6.34	2.88	2.78	4.8	2.3	80.0	0.76
4 KTCR 160 MA-8	4.0	720	11.0	8.80	4.00	3.86	4.8	2.3	82.6	0.71
4 KTCR 160 MB-8	5.5	715	14.7	11.8	5.36	5.17	4.8	2.1	84.0	0.71
4 KTCR 160 L-8	7.5	725	18.4	14.7	6.68	6.45	5.8	2.1	86.5	0.75
4 KTCR 180 L-8	11.0	715	27.5	22.0	10.0	9.65	4.2	2.5	86.7	0.74
4 KTCR 200 L-8	15.0	720	31.9	25.5	11.6	11.2	4.5	2.5	91.0	0.82
4 KTCR 225 S-8	18.5	710	40.7	32.6	14.8	14.3	4.6	2.6	91.0	0.79
4 KTCR 225 M-8	22.0	715	49.5	39.6	18.0	17.4	4.6	2.6	91.5	0.77
5 KTCR 250 M-8	30.0	730	64.9	51.9	23.6	22.8	5.4	2.4	92.8	0.79
5 KTCR 280 S-8	37.0	730	81.4	65.1	29.6	28.6	6.0	2.3	93.0	0.78
5 KTCR 280 M-8	45.0	735	99.0	79.2	36.0	34.7	6.4	2.7	93.5	0.78
5 KTCR 315 S-8	55.0	735	114.4	91.5	41.6	40.1	6.2	2.3	94.5	0.81
5 KTCR 315 MA-8	75.0	740	154.0	123.2	56.0	54.0	6.3	2.1	94.5	0.82
5 KTCR 315 MB-8	90.0	740	190.3	152.2	69.2	66.8	6.7	2.5	91.1	0.83
5 KTCR 315 L-8	110.0	740	234.3	187.4	85.2	82.2	6.9	2.5	90.0	0.83





*Welded enclosure*

**Explosion protection**

**Ex protection type**

I M2 Ex de I Mb, I M2 Ex dbe I Mb  
 I M2 Ex d I Mb, I M2 Ex db I Mb  
 PB Ex d I Mb

**Technical data**

**Frame sizes**

180-200-225-250-280-315-355

**Power**

22 kW to 400 kW

**Voltage**

380 V to 1140 V

**Operating duty**

S1 to S10, ready for operating with frequency inverters

**Frequency**

50 Hz and 60 Hz

**Single speed**

2, 4, 6, 8 pole

**Pole changing**

4/2, 8/4, 6/4, 8/6, other versions on request

**Insulation class**

F and H

**Protection class**

IP 55, possible up to IP 65

**Ambient temperature**

-20 °C to +40 °C

**Thermal protection in winding**

3 x PTC, possible also PTO or Pt100

**Thermal protection in bearings**

PTC, PTO or Pt100

**Anticondensation protection**

Heaters in winding AC 220 V

**Additional regreasing**

grease nipples

**Cooling**

air, TEFC

**Material of enclosure**

welded steel plates

**Cable glands**

1 x for power supply, 1 x for protection, Ex e or Ex d

**Certifications**

Type	ATEX		IECEX		CU TR certificate Russia, Belarussia, Kazakhstan RU-C-SI-F508.B.00309
	BVS 15 ATEX E 075 X	FTZU 13 ATEX 0111X	IECEX BVS 15.0066X	IECEX FTZU 14.0006X	
<b>3KTCR 180</b>	■		■		■
<b>3KTCR 200</b>	■		■		■
<b>3KTCR 225</b>	■		■		■
<b>4KTCR 250</b>	■		■		■
<b>4KTCR 280</b>	■		■		■
<b>4KTCR 315</b>	■		■		■
<b>5KTCR 355</b>		■		■	■



## Technical data for 2 pole motors

Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>3 KTCR 180 M-2</b>	22	2930	39.0	31.0	14.1	13.7	7.2	2.9	92.0	0.89
<b>3 KTCR 200 LA-2</b>	30	2930	53.0	42.3	19.2	18.6	7.3	2.8	93.0	0.88
<b>3 KTCR 200 LB-2</b>	37	2930	64.0	51.3	23.3	22.5	7.3	2.9	93.5	0.89
<b>3 KTCR 225 M-2</b>	45	2945	79.0	63.2	28.7	27.7	7.2	2.6	93.5	0.88
<b>4 KTCR 250 M-2</b>	55	2970	95.0	75.6	34.4	33.3	7.5	3.2	94.4	0.89
<b>4 KTCR 280 S-2</b>	75	2980	131.0	104.0	47.3	46.0	8.0	3.0	94.5	0.88
<b>4 KTCR 280 M-2</b>	90	2980	152.0	122.0	55.3	53.3	8.0	2.9	95.0	0.90
<b>4 KTCR 315 S-2</b>	110	2970	194.0	155.0	70.3	68.0	6.0	2.4	95.5	0.86
<b>4 KTCR 315 MA-2</b>	132	2970	228.0	181.0	82.4	80.0	6.5	2.8	95.5	0.88
<b>4 KTCR 315 MB-2</b>	160	2975	270.0	215.0	97.5	94.7	6.9	2.4	95.7	0.90
<b>4 KTCR 315 MC-2</b>	200	2980	335.0	270.0	121.7	117.5	6.9	2.3	95.8	0.90
<b>5 KTCR 355 SA-2</b>	200	2980	330.0	264.0	120.0	115.8	7.2	2.5	95.6	0.92
<b>5 KTCR 355 SB-2</b>	250	2985	414	331.2	150.5	145.3	7.4	2.5	95.2	0.92
<b>5 KTCR 355 LA-2</b>	280	2985	463.7	371	168.6	162.7	7.3	2.4	95.4	0.91
<b>5 KTCR 355 LB-2</b>	315	2985	517	413.6	188	181.4	7.4	2.5	95.5	0.92



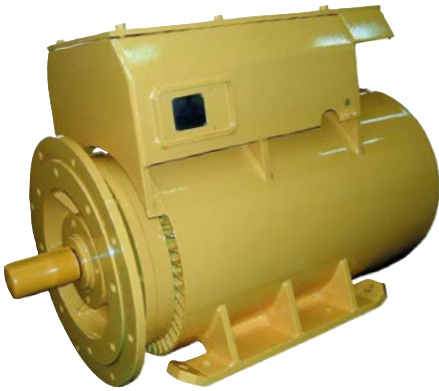
<b>Technical data for 4 pole motors</b>										
Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>3 KTCR 180 M-4</b>	18.5	1460	35.0	27.7	13.8	12.3	6.5	2.3	92.0	0.84
<b>3 KTCR 180 L-4</b>	22	1455	40.0	31.9	16.0	14.0	6.4	2.3	92.5	0.86
<b>3 KTCR 200 L-4</b>	30	1460	56.0	44.9	22.5	19.6	6.2	3.0	93.0	0.83
<b>3 KTCR 225 S-4</b>	37	1465	68.0	54.8	27.4	23.8	6.3	2.8	93.5	0.84
<b>3 KTCR 225 M-4</b>	45	1470	83.0	66.2	33.1	29.1	6.2	2.8	94.0	0.83
<b>4 KTCR 250 M-4</b>	55	1475	98.0	78.2	39.1	34.4	6.1	2.5	94.5	0.86
<b>4 KTCR 280 S-4</b>	75	1475	135.0	106.1	53.1	47.4	6.1	2.8	95.0	0.86
<b>4 KTCR 280 M-4</b>	90	1475	158.0	125.9	62.9	55.4	6.5	2.9	95.0	0.87
<b>4 KTCR 315 S-4</b>	110	1485	193.0	153.1	76.5	67.7	6.0	2.4	95.5	0.87
<b>4 KTCR 315 MA-4</b>	132	1485	232.0	183.1	91.6	81.4	6.5	2.6	95.8	0.87
<b>4 KTCR 315 MB-4</b>	160	1480	282.0	224.0	112.0	98.9	7.0	2.6	96.0	0.86
<b>4 KTCR 315 MC-4</b>	200	1485	345.0	275.0	126.0	121.0	6.9	2.6	95.8	0.87
<b>4 KTCR 315 MD-4</b>	250	1487	433	347	158	152	7.2	3.0	95.2	0.88
<b>5 KTCR 355 SA-4</b>	200	1485	353	282.4	128.4	123.9	7.3	2.3	95.2	0.86
<b>5 KTCR 355 SB-4</b>	250	1490	459	367.2	166.7	161.1	7.2	2.4	94.6	0.83
<b>5 KTCR 355 S(L)-4</b>	315	1490	555	444	202	195	7.2	2.4	94.6	0.87
<b>5 KTCR 355 M-4</b>	400	1490	660	528	240	232	7.5	2.5	95.8	0.91

**Technical data for 6 pole motors**

Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficency %	Power factor cos φ
<b>3 KTCR 180 L-6</b>	15	965	31.0	24.8	11.3	10.9	5.2	2.3	89.5	0.78
<b>3 KTCR 200 LA-6</b>	18.5	965	36.0	28.8	13.1	12.6	6.0	2.4	91.0	0.81
<b>3 KTCR 200 LB-6</b>	22	965	43.0	34.4	15.6	15.1	6.0	2.4	91.5	0.81
<b>3 KTCR 225 M-6</b>	30	975	56.0	44.8	20.4	19.6	5.8	2.5	92.5	0.83
<b>4 KTCR 250 M-6</b>	37	985	69.0	55.2	25.1	24.2	6.0	2.6	93.5	0.83
<b>4 KTCR 280 S-6</b>	45	985	82.0	65.6	29.8	28.8	6.3	2.7	94.5	0.84
<b>4 KTCR 280 M-6</b>	55	985	101.0	80.8	36.7	35.4	6.0	2.8	94.5	0.84
<b>4 KTCR 315 S-6</b>	75	980	140.0	112.0	50.9	49.1	5.9	2.8	95.0	0.82
<b>4 KTCR 315 MA-6</b>	90	985	163.0	130.4	59.3	57.2	5.1	2.9	95.5	0.84
<b>4 KTCR 315 MB-6</b>	110	990	198.0	158.4	72.0	69.5	6.5	2.4	91.5	0.88
<b>4 KTCR 315 L-6</b>	132	990	238.0	190.4	86.5	83.5	6.8	2.4	90.5	0.88
<b>5 KTCR 355 SA-6</b>	160	990	293	235	107	103	7.0	2.1	93.9	0.84
<b>5 KTCR 355 SB-6</b>	200	990	348	278	127	122	7.0	2.1	93.7	0.88
<b>5 KTCR 355 LA-6</b>	250	on request								



<b>Technical data for 8 pole motors</b>										
Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>4 KTCR 160 L-8</b>	7.5	725	18.4	14.7	6.68	6.45	5.8	2.1	86.5	0.75
<b>3 KTCR 180 L-8</b>	11.0	715	27.5	22.0	10.0	9.65	4.2	2.5	86.7	0.74
<b>3 KTCR 200 L-8</b>	15.0	720	31.9	25.5	11.6	11.2	4.5	2.5	91.0	0.82
<b>3 KTCR 225 S-8</b>	18.5	710	40.7	32.6	14.8	14.3	4.6	2.6	91.0	0.79
<b>3 KTCR 225 M-8</b>	22.0	715	49.5	39.6	18.0	17.4	4.6	2.6	91.5	0.77
<b>4 KTCR 250 M-8</b>	30.0	730	64.9	51.9	23.6	22.8	5.4	2.4	92.8	0.79
<b>4 KTCR 280 S-8</b>	37.0	730	81.4	65.1	29.6	28.6	6.0	2.3	93.0	0.78
<b>4 KTCR 280 M-8</b>	45.0	735	99.0	79.2	36.0	34.7	6.4	2.7	93.5	0.78
<b>4 KTCR 315 S-8</b>	55.0	735	114.4	91.5	41.6	40.1	6.2	2.3	94.5	0.81
<b>4 KTCR 315 MA-8</b>	75.0	740	154.0	123.2	56.0	54.0	6.3	2.1	94.5	0.82
<b>4 KTCR 315 MB-8</b>	90.0	740	190.3	152.2	69.2	66.8	6.7	2.5	91.1	0.83
<b>4 KTCR 315 L-8</b>	110.0	740	234.3	187.4	85.2	82.2	6.9	2.5	90.0	0.83
<b>5 KTCR 355 SA-8</b>	132	740	256	205	93.1	89.8	6.9	2.2	93.2	0.80
<b>5 KTCR 355 SB-8</b>	160	740	323	258	118	113	6.9	2.2	93.8	0.76
<b>5 KTCR 355 LA-8</b>	200	on request								
<b>5 KTCR 355 LB-8</b>	250									



*Motors for heavy working conditions*

➔ **Explosion protection**

**Ex protection type**

- ⊕ I M2 Ex de I Mb, I M2 Ex dbe I Mb
- ⊕ I M2 Ex d I Mb, I M2 Ex db I Mb
- PB Ex d I Mb

➔ **Technical data**

**Frame sizes**

180-200-225-250-280-315-355

**Power**

22 kW to 400 kW

**Voltage**

380 V to 1140 V

**Operating duty**

S1 to S10, ready for operating with frequency inverters

**Frequency**

50 Hz and 60 Hz

**Single speed**

2, 4, 6, 8 pole

**Pole changing**

4/2, 8/4, 6/4, 8/6, other versions on request

**Insulation class**

F and H

**Protection class**

IP 55, possible up to IP 65

**Ambient temperature**

-20 °C to +40 °C

**Thermal protection in winding**

3 x PTC, possible also PTO or Pt100

**Thermal protection in bearings**

PTC, PTO or Pt100

**Anticondensation protection**

Heaters in winding AC 220 V

**Additional regreasing**

grease nipples

**Cooling**

air, TEFC

**Material of enclosure**

welded steel plates

**Cable glands**

1 x for power supply, 1 x for protection, Ex e or Ex d

**Certifications**

Type	ATEX		IECEX		CU TR certificate Russia, Belarussia, Kazakhstan RU-C-SI-F508.B.00309
	BVS 15 ATEX E 075 X	FTZU 13 ATEX 0111X	IECEX BVS 15.0066X	IECEX FTZU 14.0006X	
<b>3KTCR 180</b>	■		■		■
<b>3KTCR 200</b>	■		■		■
<b>3KTCR 225</b>	■		■		■
<b>4KTCR 250</b>	■		■		■
<b>4KTCR 280</b>	■		■		■
<b>4KTCR 315</b>	■		■		■
<b>5KTCR 355</b>		■		■	■



Technical data for 4 pole motors										
Type	Power kW	Speed Min <sup>-1</sup>	In 400 V A	In 500 V A	In 1100 V A	In 1140 V A	Ia/In Starting current	Mm/Mn Starting torque	Efficiency %	Power factor cos φ
<b>3 KTCP 180 L-4</b>	22	1455	44	34.5	15.3	15.3	5.0	2.2	89	0.84
<b>3 KTCP 200 L-4</b>	30	1460	54	45	20.2	19.0	4.7	2.3	90	0.85
<b>3 KTCP 225 M-4</b>	45	1465	81	65	29.2	28.5	4.8	2.5	91	0.86
<b>3 KTCP 225 S-4</b>	37	1470	68	54	24.3	23.7	4.8	2.5	92	0.86
<b>4 KTCP 250 M-4</b>	55	1475	103	82	38.2	36.0	4.8	2.5	92.5	0.86
<b>4 KTCP 280 S-4</b>	75	1475	134	108	48.6	47.0	4.9	2.4	93	0.87
<b>4 KTCP 280 M-4</b>	90	1475	162	129	58.5	56.7	4.8	2.4	92.5	0.88
<b>4 KTCP 315 S-4</b>	110	1485	201	161	72	70.7	5.0	2.4	93	0.88
<b>4 KTCP 315 MA-4</b>	132	1485	240	184	82.8	84.3	5.0	2.4	93	0.88
<b>4 KTCP 315 MB-4</b>	160	1480	280	224	100.8	98.3	5.5	2.4	93.5	0.89
<b>4 KTCP 315 MC-4</b>	200	1485	328	275	126.0	115.0	6.9	2.6	95.8	0.87
<b>4 KTCP 315 MD-4</b>	250	1487	433	347	158	152	7.2	3.0	95.2	0.88
<b>5 KTCP 355 SA-4</b>	200	1485	353	282.4	128.4	123.9	7.3	2.3	95.2	0.86
<b>5 KTCP 355 SB-4</b>	250	1490	459	367.2	166.7	161.1	7.2	2.4	94.6	0.83
<b>5 KTCP 355 S(L)-4</b>	315	1490	555	444	202	195	7.2	2.4	94.6	0.87
<b>5 KTCP 355 M-4</b>	400	1490	660	528	240	232	7.5	2.5	95.8	0.91

Data for 2, 6 and 8 pole motors on request



Motors with electric brake

➤ **Explosion protection**

**Ex protection type**

- ⊕ I M2 Ex de I Mb
- ⊕ I M2 Ex d I Mb

➤ **Technical data**

**Frame sizes**

71-80-90-100-112-132-160-180-200-225-250-280

**Power**

0.18 kW to 90 kW

**Voltage**

Motors 380 V to 1140 V  
Brake AC 230 V or 400 V

**Brake torque**

8 to 2000 Nm

**Operating duty**

S1 to S10, ready for operating with frequency inverters

**Frequency**

50 Hz and 60 Hz

**Single speed**

2, 4, 6, 8 pole

**Pole changing**

4/2, 8/4, 6/4, 8/6, other on request

**Insulation class**

F and H

**Protection class**

IP 55, possible up to IP 65

**Ambient temperature**

-20 °C to +40 °C

**Thermal protection in winding**

3 x PTC, possible also PTO or Pt100

**Thermal protection in bearings**

PTC, PTO or Pt100

**Anticondensation protection**

Heaters in winding AC 220 V

**Additional regreasing**

grease nipples

**Cooling**

air, TEFC

**Material of enclosure**

Cast iron

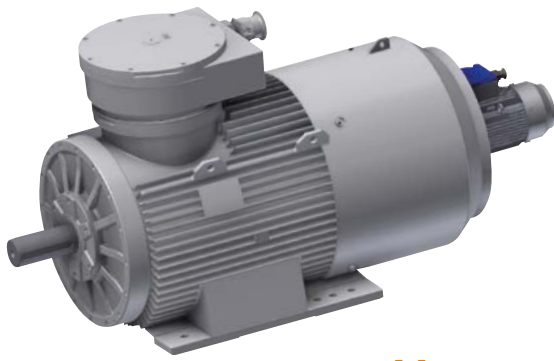
**Cable glands**

1 x for power supply, 1 x for protection, Ex e or Ex d

**Certifications**

Type	Motor				Brake
	ATEX		IECEX		ATEX
	BVS 15 ATEX E 037 X	FTZU 14 ATEX 0060X	IECEX BVS 15.0031X	IECEX FTZU 15.0006X	INERSIS 06 ATEX 0047X/03
4KTCR 71	■		■		■
4KTCR 80	■		■		■
4KTCR 90	■		■		■
4KTCR 100	■		■		■
4KTCR 112	■		■		■
4KTCR 132	■		■		■
4KTCR 160	■		■		■
4KTCR 180	■		■		■
4KTCR 200	■		■		■
4KTCR 225	■		■		■
5KTCR 250					■
5KTCR 280		■		■	■





### *Motors with forced cooling for variable speed drive*

When the motor is driven with frequency inverter additional motor for forced cooling is necessary.

Technical data for main motors as well as for forced cooling motors see above.

The motor can be equipped also with flame proof encoders.

#### ➤ Explosion protection

##### Ex protection type

- ⊕ I M2 Ex de I Mb, I M2 Ex dbe I Mb
- ⊕ I M2 Ex d I Mb, I M2 Ex db I Mb
- PB Ex d I Mb

#### ➤ Technical data

##### Frame sizes

71-80-90-100-112-132-160-180-200-225-250-280-315-355

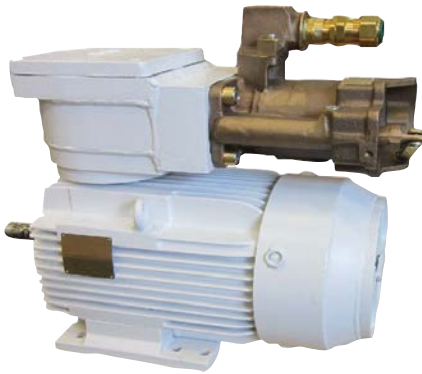
##### Power

0.18 kW to 400 kW

##### Voltage

380 V to 1140 V

Main motor	Motor for forced cooling
4KTCR 71	4KTCR 71 A2    0.37 kW
4KTCR 80	4KTCR 71 A2    0.37 kW
4KTCR 90	4KTCR 71 A2    0.37 kW
4KTCR 100	4KTCR 71 A2    0.37 kW
4KTCR 112	4KTCR 71 A2    0.37 kW
4KTCR 132	4KTCR 71 A2    0.37 kW
4KTCR 160	4KTCR 71 A2    0.37 kW
4KTCR 180, 3KTCR 180, 3KTCP 180	4KTCR 80 A4    0.55 kW
4KTCR 200, 3KTCR 200, 3KTCP 200	4KTCR 80 A4    0.55 kW
4KTCR 225, 3KTCR 225, 3KTCP 225	4KTCR 80 A4    0.55 kW
5KTCR 250, 4KTCR 250, 4KTCP 250	4KTCR 90 L4    1.5 kW
5KTCR 280, 4KTCR 280, 4KTCP 280	4KTCR 90 L4    1.5 kW
5KTCR 315, 4KTCR 315, 4KTCP 315	4KTCR 90 L4    1.5 kW
5KTCR 355, 5KTCP 355	4KTCR 100 LB4    3 kW



### Motors with socket

For fast connection our electric motors can be equipped with flame proof restrained socket.

#### Explosion protection

**Ex protection type**

- ⊕ I M2 Ex de I Mb
- ⊕ I M2 Ex d I Mb
- PB Ex d I Mb

#### Technical data

**Frame sizes**

80-90-100-112-132-160-180-200-225-250-280-315-355

**Power**

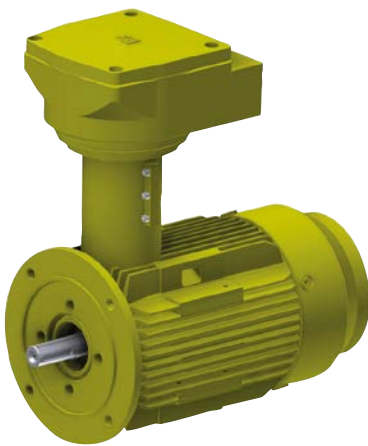
0.55 kW to 400 kW

**Voltage**

380 V to 1140 V

**Flameproof restrained socket**

250 A or 350 A; 1300 V



### Motors for axial fans

Motor for axial fans can have shaft on DE and NDE side. Installation into the fan can be with one or with two flanges as well as on the foot.

#### Explosion protection

**Ex protection type**

- ⊕ I M2 Ex de I Mb
- ⊕ I M2 Ex d I Mb
- PB Ex d I Mb

#### Technical data

**Frame sizes**

80-90-100-112-132-160-180-200-225-250-280-315-355

**Power**

0.55 kW to 400 kW

**Voltage**

380 V to 1140 V

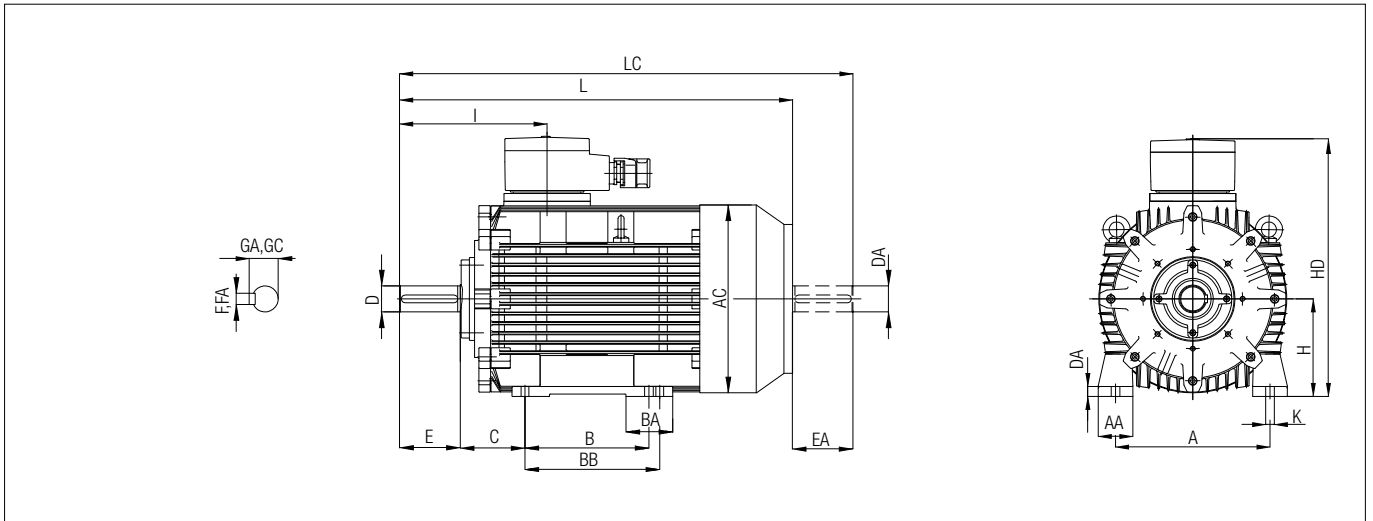
**With extension of connection box**

Length of extension tube by demand



**4KTCR, 5KTCR cast iron enclosure**

Form IM B3

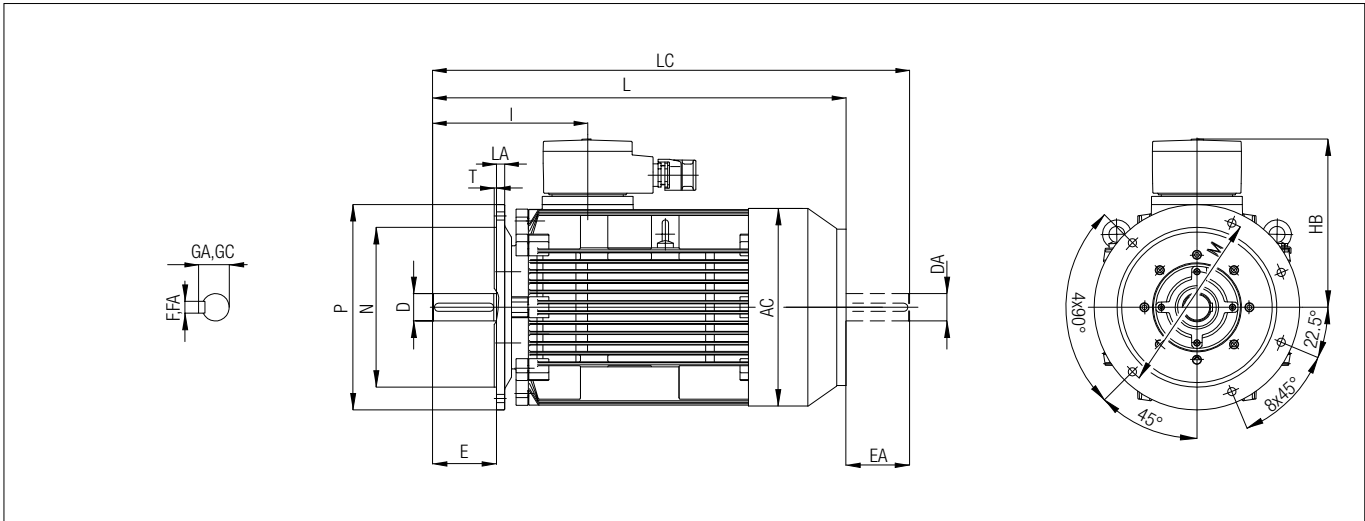


<b>Dimensions (mm)</b>																			
Frame size	A	AA	AC	B	BA	BB	C	D	E	F	GC	H	HA	HD	I	K	L	LA	LC
<b>4KTCR 71 A, B</b>	112	30	142	90	30	114	45	14	30	5	16	71	10	218	114	9	289	10	325
<b>4KTCR 80 A, B</b>	125	32	160	100	35	130	50	19	40	6	21.5	80	10	249	131	10	341	10	386
<b>4KTCR 90 S, L</b>	140	35	180	125	60	155	56	24	50	8	27	90	10	271	140	10	382	10	437
<b>4KTCR 100 L</b>	160	45	198	140	45	175	63	28	60	8	31	100	17	288	158	12	447	11	512
<b>4KTCR 112 M</b>	190	50	222	140	45	180	70	28	60	8	31	112	15	311	159	12	470	11	536
<b>4KTCR 132 S, M</b>	216	55	261	178 210	75	218	89	38	80	10	41	132	18	350	181	12	562	16	647
<b>4KTCR 160 L</b>	254	60	313	254	90	300	108	42	110	12	45	160	21	436	255	14	694	19	812
<b>4KTCR 180 M, L</b>	279	70	352	241 279	118	333	121	48	110	14	51	180	21	492	297	14	727	15	881
<b>4KTCR 200 L</b>	318	80	392	305	95	365	133	55	110	16	59	200	21	543	308	18	808	18	937
<b>4KTCR 225 S, M-2, M</b>	356	80	438	286 311 311	110	371	149	60 55 60	140 110 140	18 16 18	64 59 64	225	21	593	340 310 340	18	906 876 906	18	973 973 1033
<b>5KTCR 250 M-2, M</b>	406	100	491	349	90	429	158	60 65	140	18	64 69	250	23	687	380	24	997	18	1152
<b>5KTCR 280 S-2, S, M-2, M</b>	457	110	537	368 368 419 419	100	454 454 505 505	190	65 75 65 75	140	18 20 18 20	69 79.5 69 79.5	280	23	744	382	24	1036 1036 1096 1096	18	1191 1191 1224 1224
<b>5KTCR 315 S-2, S, M-2, M, MC-2, MC</b>	508	110	617	406 406 457 457 457	115	526 526 577 577 577	216	65 80 65 80 65 80	140 170 140 170 140 170	18 22 18 22 18 22	69 85 69 85 69 85	315	25	859	454 484 454 484 454 484	28	1050 1080 1220 1250 1300 1330	18	1210 1270 1380 1440 1460 1520



**4KTCR, 5KTCR cast iron enclosure**

Form IM B5 (V1)



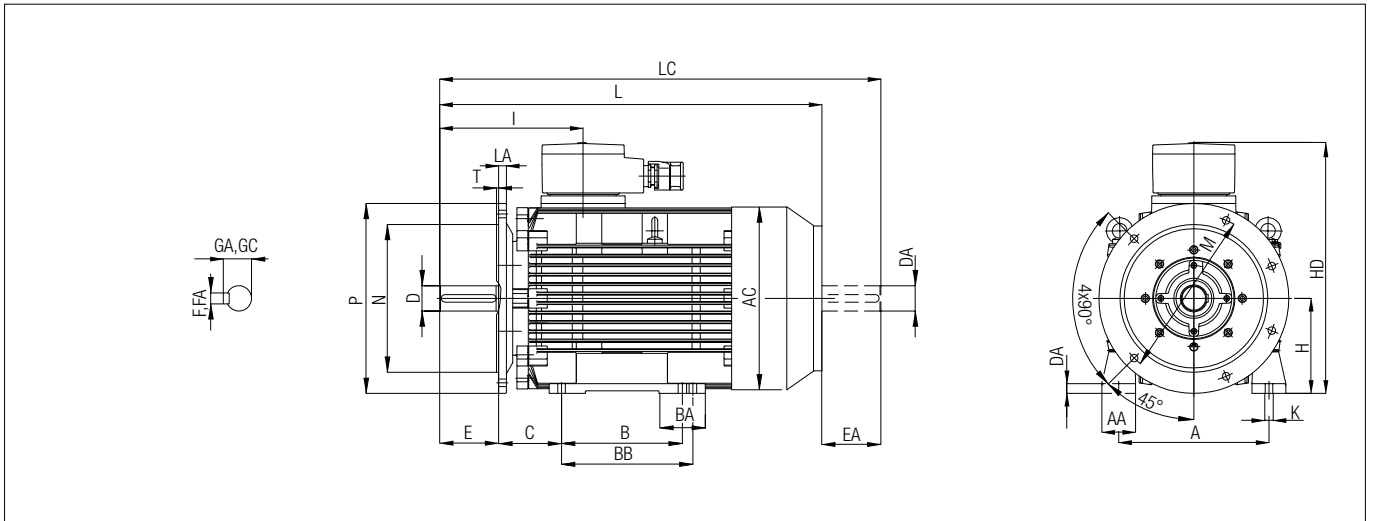
**Dimensions (mm)**

Frame size	Flange	AC	D DA	E EA	F FA	GC GA	H	HB	I	K	L	LA	LC	M	N	P	S	No. of fixing holes	
<b>4KTCR 71</b>	<b>A, B</b>	F 130-I	142	14	30	5	16	71	147	114	9	289	10	325	130	110	160	9	4
<b>4KTCR 80</b>	<b>A, B</b>	F 165-I	160	19	40	6	21.5	80	169	131	10	341	10	386	165	130	200	12	4
<b>4KTCR 90</b>	<b>S, L</b>	F 165-I	180	24	50	8	27	90	181	140	10	382	10	437	165	130	200	12	4
<b>4KTCR 100</b>	<b>L</b>	F 215-I	198	28	60	8	31	100	188	158	12	447	11	512	215	180	250	14	4
<b>4KTCR 112</b>	<b>M</b>	F 215-I	222	28	60	8	31	112	199	159	12	470	11	536	215	180	250	14	4
<b>4KTCR 132</b>	<b>S, M</b>	F 265-I	261	38	80	10	41	132	218	181	12	562	16	647	265	230	300	14	4
<b>4KTCR 160</b>	<b>M, L</b>	F 300-I	313	42	110	12	45	160	276	255	14	694	19	812	300	250	350	18	4
<b>4KTCR 180</b>	<b>M</b>	F 300-I									727								
	<b>L</b>	F 300-I	352	48	110	14	51	180	312	297	14		15	881	300	250	350	18	4
<b>4KTCR 200</b>	<b>L</b>	F 350-I	392	55	110	16	59	200	343	308	18	808	18	937	350	300	400	18	4
<b>4KTCR 225</b>	<b>S</b>	F 400-I		60	140	18	64			340		906		973					
	<b>M-2</b>	F 400-I	438	55	110	16	59	225	368	310	18	876	18	973	400	350	450	18	8
	<b>M</b>	F 400-I		60	140	18	64			340		906		1033					
<b>5KTCR 250</b>	<b>M-2</b>	F 500-I		60			64												
	<b>M</b>	F 500-I	491	65	140	18	69	250	437	380	24	997	18	1152	500	450	550	19	8
<b>5KTCR 280</b>	<b>S-2</b>	F 500-I		65		18	69					1036		1191					
	<b>S</b>	F 500-I		75		20	79.5					1036		1191					
	<b>M-2</b>	F 500-I	537	65	140	18	69	280	464	382	24	1096	18	1224	500	450	550	19	8
	<b>M</b>	F 500-I		75		20	79.5					1096		1224					
<b>5KTCR 315</b>	<b>S-2</b>	F 600-I		65	140	18	69			454		1050		1210					
	<b>S</b>	F 600-I		80	170	22	85			484		1080		1270					
	<b>M-2</b>	F 600-I	617	65	140	18	69	315	544	454	28	1220	18	1380	600	550	660	24	8
	<b>M</b>	F 600-I		80	170	22	85			484		1250		1440					
	<b>MC-2</b>	F 600-I		65	140	18	69			454		1300		1460					
	<b>MC</b>	F 600-I		80	170	22	85			484		1330		1520					



**4KTCR, 5KTCR cast iron enclosure**

Form IM B5/B5



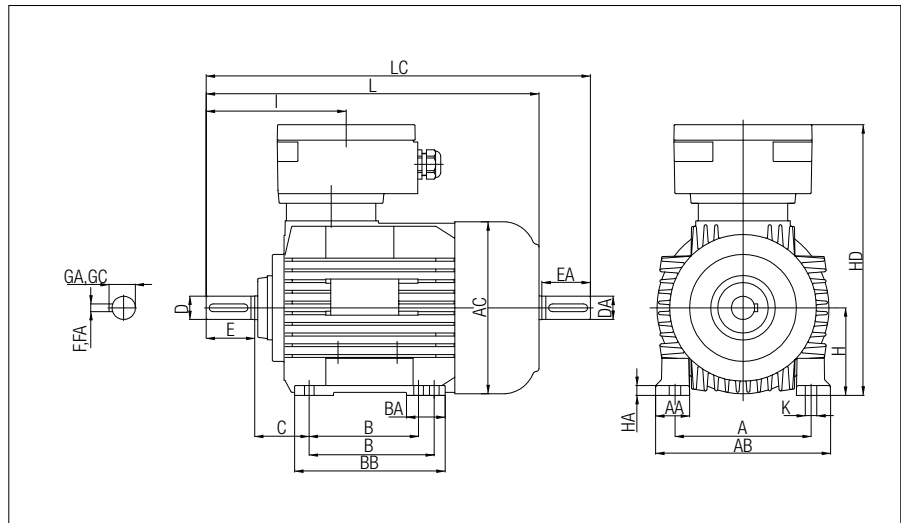
**Dimensions (mm)**

Frame size	Flange	A	AA	AB	AC	B	BA	BB	C	D	DA	E	EA	F	FA	GC	GA	H	HA	HD	I	K	L	LA	LC	M	N	P	S	No. of fixing holes
4KTCR 71	A, B	F 130-I	112	30	140	142	90	30	114	45	14	30	5	16	71	10	218	114	9	289	10	325	130	110	160	9	4			
4KTCR 80	A, B	F 165-I	125	32	160	160	100	35	130	50	19	40	6	21.5	80	10	249	131	10	341	10	386	165	130	200	12	4			
4KTCR 90	S, L	F 165-I	140	35	180	180	125	60	155	56	24	50	8	27	90	10	271	140	10	382	10	437	165	130	200	12	4			
4KTCR 100	L	F 215-I	160	45	205	198	140	45	175	63	28	60	8	31	100	17	288	158	12	447	11	512	215	180	250	14	4			
4KTCR 112	M	F 215-I	190	50	235	222	140	45	180	70	28	60	8	31	112	15	311	159	12	470	11	536	215	180	250	14	4			
4KTCR 132	S, M	F 265-I	216	55	266	261	178	75	218	89	38	80	10	41	132	18	350	181	12	562	16	647	265	230	300	14	4			
4KTCR 160	M, L	F 300-I	254	60	312	313	254	90	300	108	42	110	12	45	160	21	436	255	14	694	19	812	300	250	350	18	4			
4KTCR 180	M	F 300-I				241		333																						
	L	F 300-I	279	70	348	352	279	118		121	48	110	14	51	180	21	492	297	14		15	881	300	250	350	18	4			
4KTCR 200	L	F 350-I	318	80	398	392	305	95	365	133	55	110	16	59	200	21	543	308	18	808	18	937	350	300	400	18	4			
4KTCR 225	S	F 400-I				286		376		60	140	18	64							340		906		976						
	M-2	F 400-I	356	80	436	438	311	110	371	149	55	110	16	59	225	21	593	310	18	876	18	973	400	350	450	18	8			
	M	F 400-I				311		371		60	140	18	64						340		906		1033							
5KTCR 250	M-2	F 500-I								60				64																
	M	F 500-I	406	100	506	491	349	90	429	158	65	140	18	69	250	23	687	380	24	997	18	1152	500	450	550	19	8			
5KTCR 280	S-2	F 500-I				368		454		65		18	69										1036		1191					
	S	F 500-I				368		454		75		20	79.5										1036		1191					
	M-2	F 500-I	457	110	557	537	419	100	505	190	65	140	18	69	280	23	744	382	24	1096	18	1224	500	450	550	19	8			
	M	F 500-I				419		505		75		20	79.5										1096		1224					
5KTCR 315	S-2	F 600-I				406		526		65	140	18	69										1050		1210					
	S	F 600-I				406		526		80	170	22	85										1080		1270					
	M-2	F 600-I	508	110	628	617	457	115	577	216	65	140	18	69	315	25	859	454	28	1220	18	1380	600	550	660	24	8			
	M	F 600-I				457		577		80	170	22	85										1250		1440					
	MC-2	F 600-I				457		577		65	140	18	69										1300		1460					
	MC	F 600-I				457		577		80	170	22	85										1330		1520					



**3KTCR, 4KTCR, 5KTCR welded enclosure**

Form IM B3



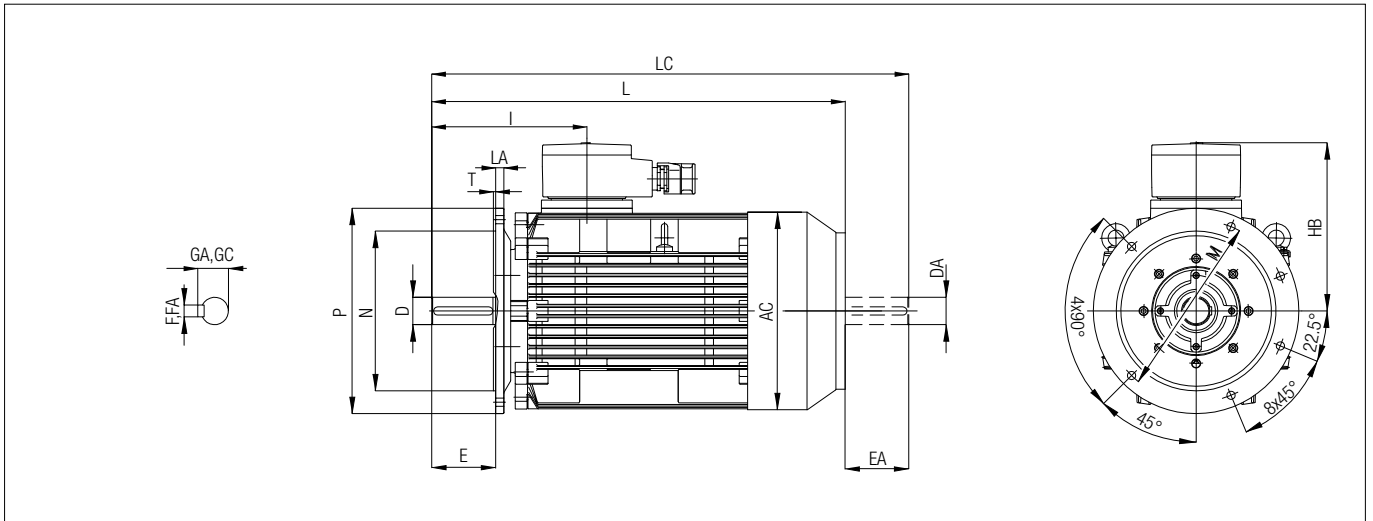
**Dimensions (mm)**

Frame size	A	AA	AC	B	BA	BB	C	D DA	E EA	F FA	GC GA	H	HA	HD	I	K	L	LA	LC		
<b>3KTCR 180</b>	<b>M</b>	279	70	352	241	80	295	121	48	110	14	51	180	21	492	299	14	721	15	841	
					279													333		761	881
<b>3KTCR 200</b>	<b>L</b>	318	80	392	305	90	395	133	55	110	16	59	200	21	543	310	18	817	18	937	
<b>3KTCR 225</b>	<b>S</b>	356	80	438	286	90	346	149	60	140	18	64	225	21	593	341	18	823	18	973	
	<b>M-2</b>				311				371	55	110	16				59		311		853	973
	<b>M</b>				311				371	60	140	18				64		341		883	1033
<b>4KTCR 250</b>	<b>M-2</b>	406	100	491	349	90	429	158	60	140	18	64	250	23	687	380	24	997	18	1152	
	<b>M</b>								65			69									
<b>4KTCR 280</b>	<b>S-2</b>	457	110	537	368	100	454	190	65	140	18	69	280	23	744	382	24	1036	18	1191	
	<b>S</b>				368				454			75						79.5		1036	1191
	<b>M-2</b>				419				505			65						69		1096	1224
	<b>M</b>				419				505			75						79.5		1096	1224
<b>4KTCR 315</b>	<b>S-2</b>	508	110	617	406	115	526	216	65	140	18	69	315	25	859	454	28	1050	18	1210	
	<b>S</b>				406				526	80	85	859				484		1080		1270	
	<b>M-2</b>				457				577	65	69	859				454		1220		1380	
	<b>M</b>				508				577	80	85	859				484		1250		1440	
	<b>MC-2</b>				508				577	65	69	859				454		1300		1460	
	<b>MC</b>				508				577	80	85	859				484		1330		1520	
	<b>MD</b>				503				577	80	85	864				484		1430		--	
<b>5KTCR 355</b>	<b>SA-2</b>	610	130	698	500	210	734	244	75	140	20	79.5	355	35	981	511	28	1587	25	1737	
	<b>SA</b>				500		734		100	106	581	1657				1877					
	<b>SB-2</b>				560		734		75	79.5	511	1587				1737					
	<b>SB</b>				560		734		100	106	581	1657				1877					
	<b>LA-2</b>				630		804		75	79.5	511	1587				1737					
	<b>LA</b>				630		804		100	106	581	1657				1877					
	<b>LB-2</b>				630		804		75	79.5	511	1587				1737					
	<b>LB</b>				630		804		100	106	581	1657				1877					
	<b>M</b>				630		804		100	106	581	1657				1877					



**3KTCR, 4KTCR, 5KTCR welded enclosure**

Form IM B5 (V1)

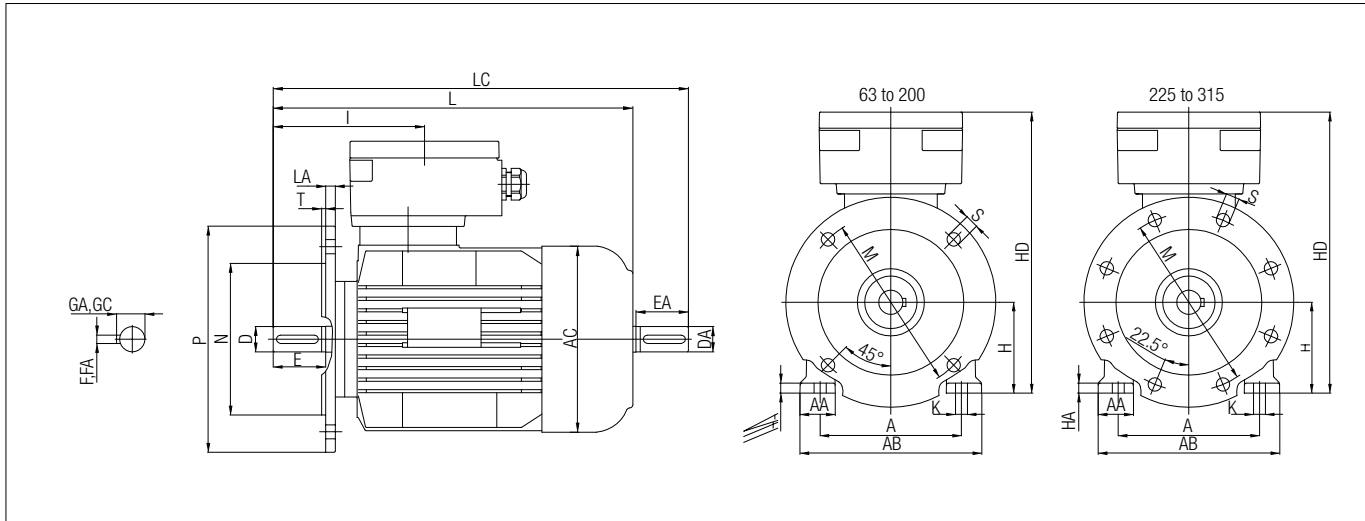


Dimensions (mm)																				
Frame size	Flange	AC	D DA	E EA	F FA	GC GA	H	HB	I	K	L	LA	LC	M	N	P	S	No. of fixing holes		
3KTCR 180	M	F 300-I	352	48	110	14	51	180	312	299	14	721	15	841	300	250	350	18	4	
	L	F 300-I												881						
3KTCR 200	L	F 350-I	392	55	110	16	59	200	343	310	18	817	18	937	350	300	400	18	4	
3KTCR 225	S	F 400-I	438	60	140	18	64	225	368	341	18	823	18	973	400	350	450	18	8	
	M-2	F 400-I		55	110	16	59					853		973						
	M	F 400-I		60	140	18	64					883		1033						
4KTCR 250	M-2	F 500-I	491	60	140	18	64	250	437	380	24	997	18	1152	500	450	550	19	8	
	M	F 500-I		65			69													
4KTCR 280	S-2	F 500-I	537	65	140	18	69	280	464	382	24	1036	18	1191	500	450	550	19	8	
	S	F 500-I		75		20	79.5					1036		1191						
	M-2	F 500-I		65		18	69					1096		1224						
	M	F 500-I		75		20	79.5					1096		1224						
4KTCR 315	S-2	F 600-I	617	65	140	18	69	315	544	454	28	1050	18	1210	600	550	660	24	8	
	S	F 600-I		80	170	22	85					544		484						
	M-2	F 600-I		65	140	18	69					544		454						
	M	F 600-I		80	170	22	85					544		484						
	MC-2	F 600-I		65	140	18	69					544		454						
	MC	F 600-I		80	170	22	85					544		484						
MD	F 600-I	80	170	22	85	549	484													
5KTCR 355	SA-2	F 740-I	698	75	140	20	79.5	355	626	511	28	1587	25	1737	740	680	800	24	8	
	SA	F 740-I		100	210	28	106					581		1657						1877
	SB-2	F 740-I		75	140	20	79.5					511		1587						1737
	SB	F 740-I		100	210	28	106					581		1657						1877
	LA-2	F 740-I		75	140	20	79.5					511		1587						1737
	LA	F 740-I		100	210	28	106					581		1657						1877
	LB-2	F 740-I		75	140	20	79.5					511		1587						1737
	LB	F 740-I		100	210	28	106					581		1657						1877
	M	F 740-I		100	210	28	106					581		1657						1877



**3KTCR, 4KTCR, 5KTCR welded enclosure**

Form IM B3/B5



**Dimensions (mm)**

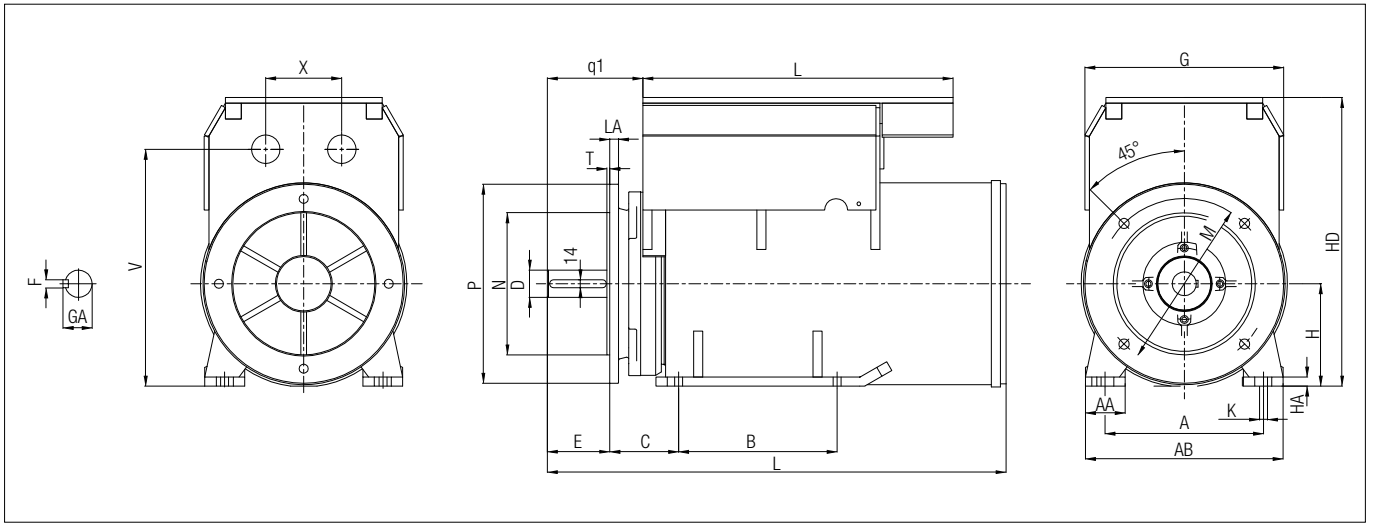
Frame size	Flange	A	AA	AB	AC	B	BA	BB	C	D	E	F	GC	H	HA	HD	I	K	L	LA	LC	M	N	P	S	No. of fixing holes	
<b>3KTCR 180</b>	<b>M</b>	F 300-I	279	70	348	352	241	80	295	121	48	110	14	51	180	21	492	299	14	721	15	841	300	250	350	18	4
	<b>L</b>	F 300-I					279	333																			
<b>3KTCR 200</b>	<b>L</b>	F 350-I	318	80	398	392	305	90	395	133	55	110	16	59	200	21	543	310	18	817	18	937	350	300	400	18	4
<b>3KTCR 225</b>	<b>S</b>	F 400-I				286		346		60	140	18	64				341		823		973		400	350	450	18	8
	<b>M-2</b>	F 400-I	356	80	436	438	311	90	371	149	55	110	16	59	225	21	593	311	18	853	18	973	400	350	450	18	8
	<b>M</b>	F 400-I				311		371		60	140	18	64				341		883		1033						
<b>4KTCR 250</b>	<b>M-2</b>	F 500-I	406	100	506	491	349	90	429	158	60	140	18	64	250	23	687	380	24	997	18	1152	500	450	550	19	8
	<b>M</b>	F 500-I								65				69													
<b>4KTCR 280</b>	<b>S-2</b>	F 500-I				368		454		65		18	69								1036						
	<b>S</b>	F 500-I				368		454		75		20	79.5		80	23	744	382	24	1036	18	1191	500	450	550	19	8
	<b>M-2</b>	F 500-I	457	110	557	537	419	100	505	190	65	140	18	69							1096						
	<b>M</b>	F 500-I				419		505		75		20	79.5								1096						
<b>4KTCR 315</b>	<b>S-2</b>	F 600-I				406		526		65	140	18	69				859	454		1050		1210					
	<b>S</b>	F 600-I				406		526		80	170	22	85				859	484		1080		1270					
	<b>M-2</b>	F 600-I				457		577		65	140	18	69				859	454		1220		1380					
	<b>M</b>	F 600-I	508	110	628	617	457	115	577	216	80	170	22	80	315	25	859	484	28	1250	18	1440	600	550	660	24	8
	<b>MC-2</b>	F 600-I				457		577		65	140	18	65				859	454		1300		1460					
	<b>MC</b>	F 600-I				457		577		80	170	22	80				859	484		1330		1520					
<b>MD</b>	F 600-I				457		577		80	170	22	85				864	484		1430		--						
<b>5KTCR 355</b>	<b>SA-2</b>	F 740-I				500		734		75	140	20	79.5				511			1587		1737					
	<b>SA</b>	F 740-I				500		734		100	210	28	106				581			1657		1877					
	<b>SB-2</b>	F 740-I				560		734		75	140	20	79.5				511			1587		1737					
	<b>SB</b>	F 740-I				560		734		100	210	28	106				581			1657		1877					
	<b>LA-2</b>	F 740-I	610	130	740	698	630	130	804	244	75	140	20	79.5	355	35	981	511	28	1587	25	1737	740	680	800	24	8
	<b>LA</b>	F 740-I				630		804		100	210	28	106				581			1657		1877					
	<b>LB-2</b>	F 740-I				630		804		75	140	20	79.5				511			1587		1737					
	<b>LB</b>	F 740-I				630		804		100	210	28	106				581			1657		1877					
	<b>M</b>	F 740-I				630		804		100	210	28	106				581			1657		1877					





**3KTCP, 4KTCP, 5KTCP motor for heavy working conditions**

Form IM B5, B5, B35



**Dimensions (mm)**

Frame size	A	AA	AB	B	C	D	E	F	GA	2 pole		4, 6, 8 pole		H	HA
										DA	E	F	GA		
<b>3KTCP 180 M</b>	279	70	348	241	121	48	110	14	51.5	48	110	14	51.5	180	16
<b>3KTCP 180 L</b>	279	70	348	279	121	48	110	14	51.5	48	110	14	51.5	180	16
<b>3KTCP 200 L</b>	318	80	398	305	133	55	110	16	58.8	55	110	16	58.8	200	16
<b>3KTCP 225 S</b>	356	80	436	285	149	60	140	18	64.2	60	140	18	64.2	225	16
<b>3KTCP 225 S</b>	356	80	436	311	149	55	110	16	58.8	60	140	18	64.2	225	16
<b>4KTCP 250 M</b>	406	100	506	349	168	60	140	18	64.2	65	140	18	64.2	250	20
<b>4KTCP 280 S</b>	457	110	568	368	190	65	140	18	69.2	75	140	20	79.6	280	20
<b>4KTCP 280 M</b>	457	110	568	419	190	65	140	18	69.2	75	140	20	79.6	280	20
<b>4KTCP 315 S</b>	508	120	628	406	216	65	140	18	69.2	80	170	22	85.5	315	25
<b>4KTCP 315 M</b>	508	120	628	457	216	65	140	18	69.2	80	170	22	85.5	315	25
<b>4KTCP 315 MC</b>	508	120	628	457	216	65	140	18	69.2	80	170	22	85.5	315	25
<b>4KTCP 315 MD</b>	508	120	628	457	216	65	140	18	69.2	80	170	22	85.5	315	25
<b>5KTCP 355 S</b>	on request														
<b>5KTCP 355 M</b>															
<b>5KTCP 355 L</b>															



**Dimensions (mm)**

Frame size	HD	K	L	q	L	q	LA	M	N	P	S	T	G	O	V	X
			2 pole		4, 6, 8 pole											
<b>3KTCP 180 M</b>	510	14	740	168	740	168	15	300	250	350	18	5	350	494	422	82
<b>3KTCP 180 L</b>	510	14	780	168	780	168	15	30	250	350	18	5	350	534	422	82
<b>3KTCP 200 L</b>	563	18	840	177	840	177	18	350	300	400	18	5	385	585	473	98
<b>3KTCP 225 S</b>	613	18	842	208	842	208	18	350	300	400	18	5	386	556	523	98
<b>3KTCP 225 S</b>	613	18	872	178	902	208	18	350	450	400	18	5	386	616	523	98
<b>4KTCP 250 M</b>	701	24	987	219	987	219	18	500	450	550	19	5	446	660	589	144
<b>4KTCP 280 S</b>	770	24	1012	223	1012	223	18	500	450	550	19	5	456	690	655	144
<b>4KTCP 280 M</b>	770	24	1072	223	1072	223	18	500	450	550	19	5	456	750	659	144
<b>4KTCP 315 S</b>	857	24	1051	261	1081	291	22	600	550	660	24	6	532	795	760	170
<b>4KTCP 315 M</b>	857	24	1176	261	1206	291	22	600	550	660	24	6	532	855	760	170
<b>4KTCP 315 MC</b>	857	24	1390	261	1390	291	22	600	550	660	24	6	532	855	760	170
<b>4KTCP 315 MD</b>	857	24	1600	261	1600	291	22	600	550	660	24	6	532	855	760	170
<b>5KTCP 355 S</b>	on request															
<b>5KTCP 355 M</b>																
<b>5KTCP 355 L</b>																

Note: All datas and dimensions in this catalogue are informative and will be specified during quotation.



Special applications/options														
Frame size	71	80	90	100	112	132	160	180	200	225	250	280	315	355
Special voltage up to 1140 V	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Special frequency	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Frequency inverter drive	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Special power	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Special shaft end	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Free shaft end on NDS-end of motor	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Special flange	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Flange made in R acc. to DIN 42955	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Additional greasing								■	■	■	■	■	■	■
Fixed bearing on AS								■	■	■	■	■	■	■
2RS bearings	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Labyrinth seal								■	■	■	■	■	■	■
Oil seal								■	■	■	■	■	■	■
Protection IP 56	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Protection IP 65	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Protection IP 66	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Protection cover	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vibrations within R or S limits	■	■	■	■	■	■	■	■	■	■	■	■	■	■
SPM placing								op	op	op	op	op	op	op
Special data plate	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Terminal box with Ex d cable glands	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Terminal box with socket	op	op	op	op	op	op	op	op	op	op	op	op	op	op
Thermal protection of winding	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Heating of winding against condensation	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Heating of winding at temp. lower -20 °C	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Insulation class H	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Special colour	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ = on request

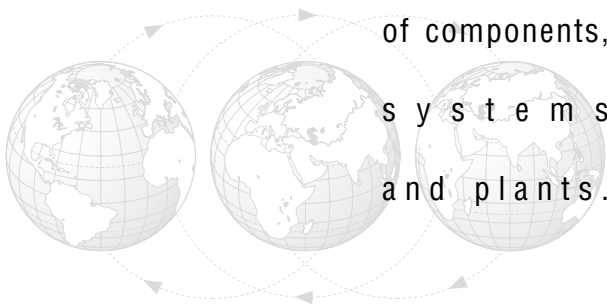
op = option

**Ordering data**

- rating in kW
- voltage and frequency
- r.p.m.
- type of motor arrangement (form IM ..)
- mechanical requirements
- special requirements (i.e. H-class thermal insulation, two-shaft, radial bearing seals...).

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people and  
the environment  
by the safety

of components,  
systems  
and plants.



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