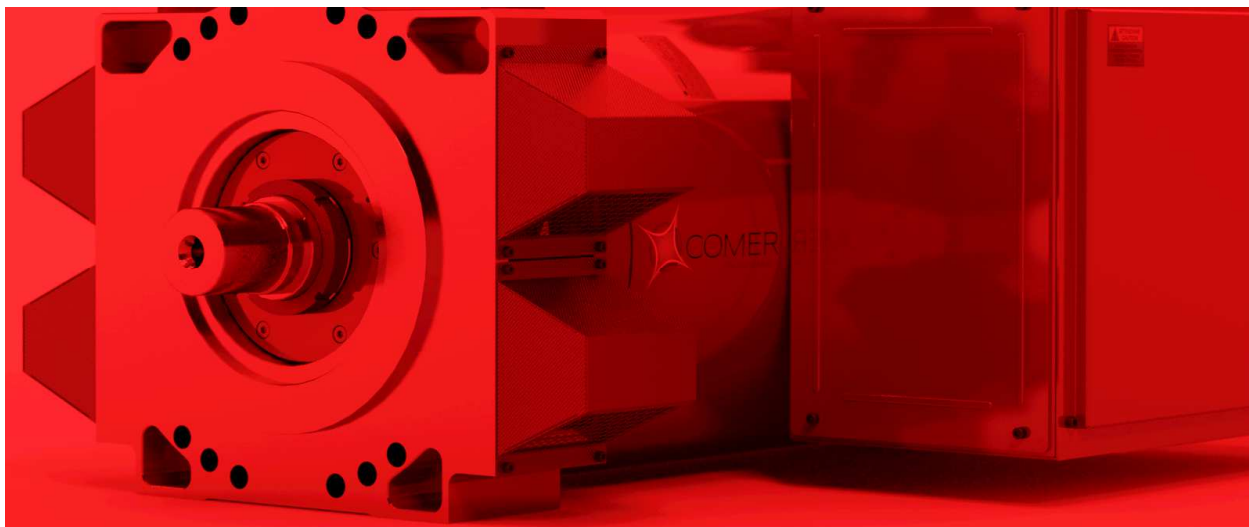




# HIGH SPEED SERIES CATALOGUE

ASYNCHRONOUS HIGH SPEED MOTORS  
IC06 FORCED AIR COOLING IP23 / IP21



## **COMER s.r.l.**

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October 2022



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# OUR HISTORY

**COMER** is an industrial project set in motion at the end of the 1950's thanks to the creativity and determination of its three founders. Initially we built standard asynchronous motors, while over the years production has been evolving into the more specialized sector of direct current motors, becoming the core business till the mid-1990's.

## **POWERTECH**

With the advent of modern frequency converters, we've begun a new design season that culminated in the POWERTECH series of high performance asynchronous motors. Starting in 2005, our R&D division has investigated and designed the first series of Permanent Magnet Torque motors with a very high number of poles - and synchronous generators to be used in the wind power sector. Later in 2010 was born the High Speed motors series, specifically conceived for rig test application in the automotive sector.

## **HERITAGE & INNOVATION**

Today, many years after its foundation, we are an established Italian leader in the design and production of special asynchronous motors and permanent magnet synchronous motors and generators.

# 55

1967-2022

**COMER** high performance asynchronous motors are built according to the highest quality Standards and can be adopted in a wide range of applications. Our motors are provided with squirrel cage rotors with aluminum slots (or copper in the biggest frames). Available in both air and liquid cooling versions.

**COMER** high performance synchronous motors line is the result of a persistent research in the electromagnetic sector and use of advanced materials. The rotor is provided with permanent rare-earth magnets with outcome of compact and light motors, having extremely high torque and power values. Available in both air and liquid cooling versions.

## **ISO 9001:2015**

The whole production process is controlled inside the factory and certified by ISO 9000 Quality System since 1995, now ISO 9001:2015. At the end of manufacturing process, the motors and generators are tested on computerized test benches, equipped with inverters and energy recovery AFE device: in this way we protect the environment from CO<sub>2</sub> emissions and re-use the excess energy into the Factory needs.

THANK YOU FOR TRUSTING US  
THESE FIRST 55 YEARS TOGETHER HAVE BEEN FANTASTIC!



## HIGH SPEED MOTORS FOR HIGH SPEED APPLICATIONS

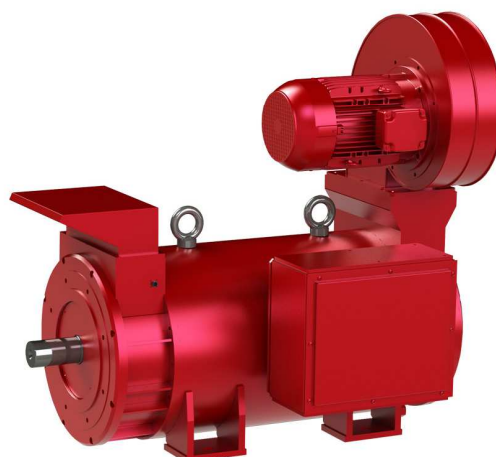
After many years of success and exciting challenges, for which they have been playing a prominent role, the TETRAVEC family is getting wider. The series of Comer motors S, RS, HS for high speed applications is the result of research and continuous improvement in designing and manufacturing our high performing electric motors. Only after a hard research of specific components, accurate design and severe testing, we are glad to present our best reliable compromise between Torque density and speed, always with the aim to meet our customers' needs.

Dopo anni di grandi successi e di sfide ardue, dove si è sempre contraddistinta, la famiglia TETRAVEC si allarga. La gamma di motori S, RS e HS per applicazioni ad alta velocità di COMER è il risultato della ricerca e del continuo miglioramento nella progettazione e nella costruzione dei motori elettrici ad alte prestazioni. Solo dopo specifiche ricerche nei componenti, progettazione accurata e severi test, siamo lieti di presentare il nostro migliore compromesso tra densità di coppia, velocità e affidabilità, nell'ottica costante di soddisfare le esigenze del Cliente.

IP PROTECTION	S Series: IP23 / RS and HS Series: IP21
THERMAL PROTECTION TYPE	KLIXON (PT100, PTC on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06 (with filter on request)
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
AVAILABLE SIZES	100, 132, 160, 200, 225, 250, 280, 315, 355
DE BEARING	BALL (with PT100 probe on request)
NDE BEARING	BALL (with PT100 probe on request)
MAX MECHANICAL SPEED	Up to 12000 rpm
PAINING SYSTEM	NITRO, POLYURETHANIC, on request



RS TETRAVEC SERIES



HS TETRAVEC SERIES

# POWERTECH S4 TETRAVEC 100K

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 9000rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 9000rpm$   
 $K_i = 1.3$  if  $n_i > 9000rpm$

### S4 TETRAVEC 100K

Poles: 2p=4

MAX MECHANICAL SPEED: 12000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
100K.1	400	2000	69,0	28,7	12,9	6,0	84,0	3750	37,2	16,3	7,8	2850	1,9	0,0096	45
	400	4000	135,8	26,3	22,5	11,0	90,0	8000	34,1	27,8	14,3	5900	7,0		
	400	6300	212,2	23,8	30,3	15,7	92,0	11800	30,9	39,0	20,4	9000	15,3		
	460	2030	70,0	28,7	11,4	6,1	84,0	3800	37,2	14,4	7,9	2900	1,9		
	460	4090	138,8	26,3	20,0	11,2	90,0	8200	34,1	24,7	14,6	6050	7,4		
	460	6130	206,5	23,8	25,6	15,3	92,0	11500	30,9	33,0	19,9	8750	14,5		
100K.2	400	2100	72,1	40,0	18,9	8,8	86,5	4500	52,0	23,4	11,4	3400	3,2	0,0120	60
	400	4100	138,8	35,0	29,4	15,0	91,0	8600	45,4	36,9	19,5	6700	10,9		
	400	6340	213,4	32,5	42,3	21,6	92,5	12000	42,3	53,0	28,1	10800	25,3		
	460	2110	72,6	40,0	16,5	8,8	86,5	4500	52,0	20,5	11,5	3400	3,3		
	460	4040	136,8	35,0	25,2	14,8	91,0	8450	45,4	31,6	19,2	6600	10,6		
	460	6480	218,1	32,5	37,6	22,1	92,5	12000	42,3	47,1	28,7	11050	26,4		
100K.3	400	2000	68,8	54,0	22,8	11,3	88,0	4350	70,2	29,0	14,7	3300	4,0	0,0160	80
	400	4140	140,1	48,0	39,2	20,8	92,0	9000	62,4	50,2	27,0	6900	15,5		
	400	6150	207,0	42,0	50,5	27,0	92,5	12000	54,6	64,3	35,2	11000	32,2		
	460	2060	70,8	54,0	20,4	11,6	88,0	4500	70,2	25,9	15,1	3400	4,3		
	460	4290	145,0	48,0	35,3	21,6	92,0	9350	62,4	45,2	28,0	7150	16,7		
	460	5980	201,4	42,0	42,7	26,3	92,5	12000	54,6	54,4	34,2	10700	30,5		
100K.4	400	2250	77,0	73,0	34,7	17,2	89,0	5400	94,9	43,3	22,4	4100	7,6	0,0212	110
	400	4150	140,1	65,0	54,6	28,3	92,5	10300	84,5	68,4	36,7	8000	24,5		
	400	6000	201,7	57,0	68,0	35,8	93,0	12000	74,1	85,0	46,5	12000	46,5		
	460	2190	74,9	73,0	29,4	16,7	89,0	5250	94,9	36,6	21,8	4000	7,3		
	460	4040	136,3	65,0	46,2	27,5	92,5	10050	84,5	57,9	35,8	7800	23,2		
	460	6130	206,2	57,0	60,4	36,6	93,0	12000	74,1	75,6	47,5	12000	47,5		
100K.5	400	2060	70,5	83,5	36,0	18,0	90,0	5250	109	44,9	23,4	4100	8,0	0,0250	135
	400	4200	141,8	78,0	65,5	34,3	93,0	10600	101	81,6	44,6	8250	30,7		
	400	6050	203,3	68,0	81,4	43,1	93,5	12000	89	102	56,0	12000	56,0		
	460	2160	73,7	83,5	32,7	18,9	90,0	5500	109	40,8	24,5	4300	8,8		
	460	4350	146,8	78,0	59,0	35,5	93,0	11000	101	73,4	46,2	8550	32,9		
	460	6030	202,6	68,0	70,5	43,0	93,5	12000	89	88,4	55,8	12000	55,8		
100K.6	400	2150	73,5	98,0	44,3	22,1	90,0	5500	127	55,0	28,7	4200	10,0	0,0310	160
	400	4000	135,1	92,0	72,3	38,5	93,0	10100	119	91,5	50,1	7800	32,5		
	400	6000	201,6	80,0	95,0	50,2	93,5	12000	104	119	65,3	12000	65,3		
	460	2200	75,1	98,0	39,4	22,6	90,0	5650	127	48,9	29,3	4300	10,5		
	460	4090	138,1	92,0	64,3	39,4	93,0	10350	119	81,3	51,2	8000	34,1		
	460	5840	196,2	80,0	80,4	48,9	93,5	12000	104	101	63,6	12000	63,6		

# POWERTECH S4 TETRAVEC 132K

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $\text{rpm}_m \leq 8000\text{rpm}$

$$\text{rpm}_m = \frac{\sum_{i=0}^T K_i n_i t_i}{\sum_{i=0}^T t_i}$$

$K_i = 1$  if  $n_i \leq 8000\text{rpm}$   
 $K_i = 1.3$  if  $n_i > 8000\text{rpm}$

### S4 TETRAVEC 132K

Poles: 2p=4

MAX MECHANICAL SPEED: 10500rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
132K.1	400	2100	71,7	118	50,0	26,0	90,0	4750	154	63,5	33,8	3550	11,4	0,052	175
	400	4000	134,9	104	80,5	43,5	92,5	9500	135	102	56,6	7450	40,1		
	400	6060	203,5	93,0	106	59,0	93,0	10500	121	135	76,7	10500	76,7		
	460	2180	74,2	118	45,0	27,0	90,0	4950	154	57,2	35,1	3700	12,4		
	460	4180	141,0	104	73,2	45,5	92,5	9950	135	92,7	59,1	7800	43,9		
	460	5970	200,6	93,0	90,9	58,1	93,0	10500	121	116	75,6	10500	75,6		
132K.2	400	1990	67,9	158	63,0	32,9	90,0	4850	205	80,0	42,8	3650	14,9	0,068	240
	400	4000	134,8	138	105	58,0	93,0	10000	180	134	75,4	7800	56,0		
	400	4820	162,1	133	120	67,0	93,5	10500	173	152	87,1	9300	77,1		
	460	2000	68,3	158	55,1	33,1	90,0	4850	205	70,0	43,0	3650	14,9		
	460	3990	134,4	138	91,2	57,9	93,0	10000	180	116	75,2	7800	55,9		
	460	5600	188,0	127	116	74,5	93,5	10500	165	148	96,9	10500	96,5		
132K.3	400	1940	66,1	190	72,2	38,5	91,0	5000	246	92,0	50,1	3700	17,6	0,081	300
	400	4100	138,0	165	129	71,0	93,5	10500	215	163,0	92,3	8700	76,5		
	400	6000	201,4	148	159	93,0	93,5	10500	192	206	121	10500	121		
	460	2060	70,2	190	66,6	40,9	91,0	5300	246	84,9	53,1	3950	20,0		
	460	4040	136,0	165	111	70,0	93,5	10500	215	139,7	90,9	8550	74,1		
	460	6210	208,4	148	143	96,3	93,5	10500	192	185	125	10500	125		
132K.4	400	1950	66,4	255	96,5	52,1	91,5	5100	332	122	67,7	3800	24,5	0,110	400
	400	4040	136,0	220	166	93,0	94,0	10500	286	210	121	8700	100		
	400	5800	194,7	198	204	120	94,0	10500	257	264	156	10500	156		
	460	2020	68,7	255	86,9	54,0	91,5	5300	332	110	70,2	3950	26,4		
	460	4130	139,0	220	148	95,1	94,0	10500	286	187	124	8900	105		
	460	5720	191,9	198	175	118	94,0	10500	257	226	154	10500	154		
132K.5	400	2000	68,1	320	125	67,0	92,0	5500	416	158	87,1	4150	34,4	0,140	500
	400	3750	126,3	275	190	108	93,0	10500	358	82	140	8250	110		
	400	5400	181,3	248	236	140	93,5	10500	322	305	182	10500	182		
	460	1970	67,1	320	107	66,0	92,0	5400	416	135	85,8	4100	33,5		
	460	3830	129,1	275	169	110	93,0	10500	358	73	143	8450	115		
	460	5320	178,7	248	202	138	93,5	10500	322	261	179	10500	179		

# POWERTECH S4 TETRAVEC 160K

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 6500rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 6500rpm$   
 $K_i = 1.3$  if  $n_i > 6500rpm$

### S4 TETRAVEC 160K

Poles: 2p=4

MAX MECHANICAL SPEED: 9000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
160K.1	400	1340	46,1	320	87,0	45,0	90,0	2700	417	112	58,4	2050	13,3	0,17	480
	400	1950	66,4	305	116	62,3	92,0	4000	397	150	81,0	3000	27,0		
	400	2900	98,0	285	156	86,5	94,0	6100	370	205	112	4700	58,7		
	460	1350	46,4	320	76,1	45,3	90,0	2700	417	98,0	58,9	2050	13,4		
	460	2040	69,4	305	105	65,2	92,0	4200	397	95	123,3	3150	43,2		
	460	3080	104,0	285	144	91,9	94,0	6500	370	189	119	5000	66,3		
160K.2	400	1300	44,7	390	102	53,0	90,0	2700	507	132	69,0	2000	15,3	0,21	580
	400	2000	67,9	370	143	77,5	92,5	4200	481	185	101	3200	35,8		
	400	2900	97,9	340	185	103	94,0	6400	442	238	134	4600	68,6		
	460	1280	44,1	390	87,4	52,2	90,0	2650	507	113	67,9	1950	14,7		
	460	2010	68,3	370	125	77,9	92,5	4200	481	162	101	3200	36,0		
	460	3000	101,3	340	167	107	94,0	6600	442	214	139	4750	73,2		
160K.3	400	1290	44,2	460	118	62,1	90,5	2800	598	153	80,7	2100	18,8	0,25	700
	400	1930	65,5	440	163	89,0	92,5	4200	573	210	116	3200	41,1		
	400	2950	99,5	415	232	128	94,0	6600	540	297	167	4750	88,0		
	460	1350	46,2	460	107	65,0	90,5	2950	598	139	84,5	2200	20,7		
	460	1900	64,6	440	140	87,6	92,5	4150	573	180	114	3150	39,9		
	460	3020	101,7	415	206	131	94,0	6750	540	264	171	4850	91,9		
160K.4	400	1220	41,8	525	128	67,0	91,0	2800	682	163	87,1	2100	20,3	0,29	830
	400	1970	66,8	500	190	103	93,0	4600	650	243	134	3550	52,9		
	400	2900	97,7	460	252	140	94,5	6800	599	323	182	5000	101		
	460	1260	43,3	525	115	69,2	91,0	2900	682	147	90,0	2150	21,5		
	460	2060	69,8	500	173	108	93,0	4800	650	221	140	3700	57,6		
	460	2920	98,3	460	221	141	94,5	6850	599	283	183	5050	103		
160K.5	400	1220	41,8	580	140	74,0	91,0	2850	754	182	96,3	2100	22,5	0,33	930
	400	1940	65,7	550	206	112	93,5	4800	716	262	145	3650	58,9		
	400	3010	101,3	510	288	161	94,5	7550	663	368	209	5850	136		
	460	1230	42,1	580	123	74,6	91,0	2850	754	159	97,0	2100	22,6		
	460	2010	68,0	550	185	116	93,5	4950	716	236	151	3800	63,6		
	460	3000	101,0	510	250	160	94,5	7550	663	319	208	5850	135		



# POWERTECH S6 TETRAVEC 200K

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $\text{rpm}_m \leq 4500\text{rpm}$

$$\text{rpm}_m = \frac{\sum_{i=0}^T K_i n_i t_i}{\sum_{i=0}^T t_i}$$

$K_i = 1$  if  $n_i \leq 4500\text{rpm}$   
 $K_i = 1.3$  if  $n_i > 4500\text{rpm}$

### S6 TETRAVEC 200K

Poles: 2p=6

MAX MECHANICAL SPEED: 6500rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
200K.1	400	1180	60,1	700	163	86,5	92,0	2350	910	208	112	1800	31,1	0,60	1000
	400	1710	86,6	660	218	118	93,5	3450	860	280	154	2650	62,6		
	400	2250	113,6	610	260	144	94,0	4500	795	135	187	3500	101		
	460	1190	60,5	700	143	87,2	92,0	2350	910	182	113	1800	31,4		
	460	1790	90,5	660	198	124	93,5	3600	860	255	160	2750	67,7		
	460	2300	116,1	610	230	147	94,0	4600	795	120	190	3600	105		
200K.2	400	1190	60,6	800	188	100	92,5	2450	1040	240	130	1850	36,9	0,70	1200
	400	1640	83,1	760	240	130	93,5	3450	990	308	170	2600	67,8		
	400	2270	114,6	700	298	166	94,5	4550	910	387	216	3500	116		
	460	1170	59,7	800	160	98,0	92,5	2400	1040	206	127	1800	35,3		
	460	1700	86,0	760	216	135	93,5	3600	990	277	176	2700	73,0		
	460	2240	113,0	700	255	164	94,5	4500	910	332	213	3450	113		
200K.3	400	1220	62,0	920	220	118	92,5	2600	1195	282	153	2000	47,0	0,80	1400
	400	1800	91,0	880	304	165	94,0	3800	1140	388	215	2950	97,6		
	400	2310	116,5	825	360	200	94,5	4750	1075	465	260	3600	144		
	460	1280	64,8	920	200	123	92,5	2750	1195	256	160	2100	51,8		
	460	1810	91,6	880	266	166	94,0	3800	1140	340	216	2950	98,1		
	460	2210	111,6	825	300	191	94,5	4550	1075	388	250	3450	133		
200K.4	400	1270	64,5	1100	272	146	93,0	2750	1430	348	190	2100	61,4	0,95	1700
	400	1730	87,5	1050	352	190	94,0	3800	1365	445	247	2950	112,2		
	400	2210	111,5	950	396	220	94,5	4700	1235	510	286	3700	163		
	460	1300	65,9	1100	242	150	93,0	2800	1430	309	195	2150	64,4		
	460	1710	86,3	1050	302	188	94,0	3750	1365	380	244	2900	109,0		
	460	2310	116,6	950	360	230	94,5	4900	1235	464	300	3850	178		
200K.5	400	1180	59,9	1300	300	160	93,0	2700	1690	380	209	2050	65,8	1,2	2000
	400	1680	84,9	1250	400	220	94,5	3850	1625	515	286	3000	132		
	400	2200	110,9	1130	470	260	95,0	5100	1465	600	338	4000	208		
	460	1160	59,0	1300	257	158	93,0	2650	1690	326	205	2000	63,1		
	460	1760	88,8	1250	364	230	94,5	4050	1625	468	300	3150	145		
	460	2250	113,4	1130	418	266	95,0	5200	1465	533	346	4100	218		



# POWERTECH S6 TETRAVEC 250K

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 4000rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 4000rpm$   
 $K_i = 1.3$  if  $n_i > 4000rpm$

### S6 TETRAVEC 250K

Poles: 2p=6

MAX MECHANICAL SPEED: 6000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
250K.1	400	1030	52,2	1300	267	140	93,0	2300	1690	338	182	1800	54,6	2,0	2000
	400	1530	77,2	1250	373	200	94,0	3500	1625	475	260	2750	119		
	400	1990	100,2	1200	462	250	94,5	4550	1560	600	325	3550	192		
	460	1050	53,4	1300	237	143	93,0	2350	1690	300	186	1850	57,2		
	460	1490	75,1	1250	316	195	94,0	3400	1625	402	253	2700	114		
	460	2020	101,7	1200	408	254	94,5	4600	1560	529	330	3600	198		
250K.2	400	1100	55,7	1600	350	185	93,5	2650	2085	440	240	2050	81,9	2,5	2400
	400	1480	74,7	1550	443	240	94,5	3500	2015	567	312	2700	140		
	400	2010	101,2	1500	578	315	95,0	4700	1950	735	410	3700	253		
	460	1080	54,9	1600	300	181	93,5	2600	2085	377	235	2000	78,5		
	460	1510	76,4	1550	394	245	94,5	3550	2015	504	318	2750	146		
	460	1980	99,8	1500	495	311	95,0	4650	1950	630	404	3650	246		
250K.3	400	1030	52,2	2000	400	215	93,5	2500	2595	510	280	1900	88,7	3,1	3000
	400	1560	78,7	1935	583	316	95,0	3900	2510	740	410	3000	205		
	400	1930	97,2	1880	695	380	95,0	4750	2445	885	494	3650	301		
	460	1070	54,0	2000	360	224	93,5	2600	2595	460	290	1950	94,3		
	460	1540	77,6	1935	500	312	95,0	3850	2510	634	405	2950	199		
	460	2020	101,6	1880	632	398	95,0	4950	2445	805	517	3800	327		
250K.4	400	1030	52,2	2500	510	270	94,0	2650	3250	635	350	2050	120	3,9	3800
	400	1500	75,6	2420	700	380	95,0	3800	3145	883	494	2950	243		
	400	1900	95,6	2340	850	465	95,0	4900	3040	1077	605	3800	383		
	460	1040	52,5	2500	446	272	94,0	2700	3250	556	354	2050	121		
	460	1440	72,5	2420	583	365	95,0	3650	3145	736	474	2850	225		
	460	1940	97,7	2340	756	475	95,0	5000	3040	957	617	3900	401		
250K.5	400	980	49,6	3015	575	310	94,0	2600	3920	725	402	2000	134	4,8	4200
	400	1500	75,6	2930	850	460	95,0	4000	3810	1068	598	3100	309		
	400	2030	102,1	2780	1083	590	95,5	5600	3610	1370	768	4350	556		
	460	970	48,9	3015	493	306	94,0	2550	3920	620	398	2000	133		
	460	1530	77,3	2930	756	469	95,0	4100	3810	949	610	3150	320		
	460	2000	100,6	2780	928	582	95,5	5500	3610	1174	756	4300	542		

# POWERTECH S6 TETRAVEC 315LA

## IP23 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $\text{rpm}_m \leq 3200\text{rpm}$

$$\text{rpm}_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 3200\text{rpm}$   
 $K_i = 1.3$  if  $n_i > 3200\text{rpm}$

### S6 TETRAVEC 315LA

Poles: 2p=6

MAX MECHANICAL SPEED: 5000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
315LA.1	400	1030	52,0	3150	635	340	93,5	1800	4100	830	442	1350	119	7,0	4700
	400	1520	76,5	3080	900	490	94,5	2550	4000	1152	637	2000	255		
	400	2100	105,6	3000	1190	660	95,0	3500	3900	1565	858	2700	463		
	460	990	49,8	3150	529	327	93,5	1750	4100	692	425	1300	110		
	460	1530	77,0	3080	788	493	94,5	2550	4000	1008	640	2000	256		
	460	2170	109,3	3000	1070	682	95,0	3600	3900	1410	887	2800	496		
315LA.2	400	980	49,5	4090	775	420	94,0	1800	5320	1105	546	1350	147	9,2	6200
	400	1540	77,5	4000	1175	645	95,0	2800	5210	1520	840	2150	361		
	400	2060	103,7	3890	1495	840	95,5	3600	5050	735	1090	2700	589		
	460	1000	50,6	4090	689	429	94,0	1850	5320	980	557	1400	156		
	460	1590	80,2	4000	1058	666	95,0	2900	5210	1370	867	2200	382		
	460	2070	104,3	3890	1308	844	95,5	3600	5050	643	1095	2700	591		
315LA.3	400	990	50,0	5020	950	520	95,0	1850	6520	1225	676	1450	196	12	7700
	400	1570	79,0	4960	1480	815	95,5	2950	6450	1900	1060	2300	487		
	400	1920	96,5	4830	1720	970	95,5	3400	6270	2260	1260	2650	668		
	460	1040	52,7	5020	870	546	95,0	1950	6520	1123	710	1500	213		
	460	1580	79,5	4960	1295	820	95,5	2950	6450	1663	1066	2300	490		
	460	1890	95,1	4830	1474	955	95,5	3350	6270	1937	1240	2600	645		
315LA.4	400	990	50,0	6080	1145	630	95,0	2650	7900	635	819	2050	336	14	9000
	400	1500	75,5	6020	1705	945	95,0	2900	7830	2195	1230	2250	554		
	400	1870	94,0	5870	2020	1150	95,5	3450	7640	2655	1495	2650	792		
	460	1030	51,8	6080	1030	655	95,0	2750	7900	572	852	2150	366		
	460	1480	74,4	6020	1460	932	95,0	2850	7830	1880	1214	2200	534		
	460	1790	90,1	5870	1683	1101	95,5	3300	7640	2213	1430	2550	729		

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $\text{rpm}_m \leq 5000\text{rpm}$

$$\text{rpm}_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 5000\text{rpm}$   
 $K_i = 1.3$  if  $n_i > 5000\text{rpm}$

### RS4 TETRAVEC 200K

Poles: 2p=4

MAX MECHANICAL SPEED: 7500rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
200K.1	400	2380	79,9	475	205	118	94,5	5800	617	264	154	4400	90,2	0,53	700
	400	3040	101,9	440	238	140	95,0	6600	572	308	182	5300	129		
	460	2350	78,8	475	176	117	94,5	5750	617	226	152	4350	88,1		
	460	2910	97,7	440	198	134	95,0	6300	572	257	174	5050	117		
200K.2	400	2460	82,5	550	246	142	95,0	6100	715	315	184	4600	113	0,60	830
	400	3030	101,6	510	274	162	95,0	6500	663	355	210	4600	129		
	460	2360	79,1	550	205	136	95,0	5850	715	263	177	4400	104		
	460	3070	103,1	510	242	164	95,0	6600	663	313	213	4650	132		
200K.3	400	2410	80,9	645	282	163	95,0	6300	839	362	212	4700	133	0,68	975
	400	2960	99,2	600	314	186	95,0	6800	780	405	242	5200	168		
	460	2450	82,1	645	249	166	95,0	6400	839	319	215	4800	138		
	460	2950	98,9	600	272	185	95,0	6800	780	350	240	5200	166		
200K.4	400	2450	82,2	780	350	200	95,0	6700	1014	440	260	5000	173	0,82	1180
	400	3070	102,9	730	395	235	95,5	7000	948	510	305	5300	215		
	460	2470	82,7	780	306	202	95,0	6750	1014	385	262	5050	176		
	460	3030	101,4	730	340	231	95,5	6900	948	437	300	5250	210		
200K.5	400	2400	77,5	975	425	245	95,5	7000	1273	332	320	5500	235	1,0	1480
	400	2960	99,2	910	475	282	95,5	7200	1183	615	367	5550	271		
	460	2300	74,3	975	354	235	95,5	6700	1273	277	307	5250	215		
	460	2940	98,7	910	410	280	95,5	7150	1183	532	364	5500	267		

# POWERTECH RS2 TETRAVEC 200K

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 6000rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 6000rpm$   
 $K_i = 1.3$  if  $n_i > 6000rpm$

### RS2 TETRAVEC 200K

Poles: 2p=2

MAX MECHANICAL SPEED: 8500rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
200K.1	400	3400	57,1	320	198	114	94,5	8500	416	252	148	6800	119	0,31	480
	400	4300	72,0	290	215	130	95,0	8500	377	280	170	7600	152		
	460	3420	57,5	320	173	115	94,5	8500	416	220	150	6850	121		
	460	4240	71,0	290	184	129	95,0	8500	377	240	167	7500	147		
200K.2	400	3420	57,4	370	227	132	94,5	8500	481	290	172	7100	144	0,36	550
	400	4280	71,7	335	237	150	95,5	8500	435	318	195	7800	179		
	460	3370	56,6	370	195	130	94,5	8500	481	249	170	7000	140		
	460	4430	74,2	335	213	155	95,5	8500	435	286	202	8050	191		
200K.3	400	3380	56,7	430	260	152	95,0	8500	558	332	198	7400	172	0,42	650
	400	4050	67,9	390	270	165	95,0	8500	506	350	215	8000	202		
	460	3500	58,7	430	234	157	95,0	8500	558	299	205	7650	184		
	460	4140	69,4	390	240	169	95,0	8500	506	310	220	8200	212		
200K.4	400	3120	52,3	520	292	170	95,0	8500	673	373	220	7500	194	0,48	800
	400	3900	65,3	465	307	190	95,5	8500	605	384	247	8500	247		
	460	3190	53,5	520	260	174	95,0	8500	673	332	225	7650	202		
	460	3920	65,7	465	269	191	95,5	8500	605	336	248	8500	248		
200K.5	400	3350	56,1	650	388	228	95,0	8500	845	470	296	8000	279	0,60	1000
	400	4350	72,8	580	430	264	95,5	8500	754	550	343	8500	343		
	460	3300	55,3	650	333	225	95,0	8500	845	403	292	7900	271		
	460	4170	69,8	580	358	253	95,5	8500	754	458	329	8500	329		

# POWERTECH RS4 TETRAVEC 250K

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 4200rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 4200rpm$   
 $K_i = 1.3$  if  $n_i > 4200rpm$

### RS4 TETRAVEC 250K

Poles: 2p=4

MAX MECHANICAL SPEED: 7000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
250K.1	400	2500	83,8	955	438	250	95,5	5000	1240	565	325	3700	172	1,3	1450
	400	3070	102,8	870	476	280	96,0	5800	1130	620	363	4400	228		
	460	2560	85,7	955	389	256	95,5	5100	1240	502	333	3800	181		
	460	3030	101,3	870	408	276	96,0	5700	1130	533	360	4350	224		
250K.2	400	2550	85,5	1180	550	315	96,0	5100	1535	705	410	3800	222	1,6	1800
	400	2960	99,2	1080	570	335	96,0	5700	1405	740	435	4350	270		
	460	2480	83,2	1180	465	306	96,0	4950	1535	597	398	3700	211		
	460	3100	103,7	1080	518	351	96,0	5950	1405	673	456	4550	296		
250K.3	400	2480	83,1	1480	665	384	96,0	5200	1925	860	500	3900	279	1,9	2300
	400	2950	98,8	1360	710	420	96,0	5800	1770	925	546	4400	343		
	460	2570	86,0	1480	599	398	96,0	5400	1925	774	518	4050	300		
	460	3020	101,0	1360	630	430	96,0	5950	1770	825	560	4500	360		
250K.4	400	2510	84,1	1880	855	494	96,0	5400	2445	1100	642	4000	367	2,4	2900
	400	3080	103,1	1720	935	555	96,0	6000	2235	1220	722	4600	474		
	460	2530	84,6	1880	748	498	96,0	5450	2445	963	647	4050	375		
	460	3040	101,6	1720	800	548	96,0	5900	2235	1046	712	4550	463		
250K.5	400	2350	78,7	2330	985	573	96,0	5200	3030	1270	745	3950	421	3,0	3600
	400	2960	72,8	2130	1110	660	96,0	6000	2769	1440	858	4600	564		
	460	2320	77,6	2330	844	566	96,0	5150	3030	1089	736	3900	410		
	460	2870	69,8	2130	925	640	96,0	5800	2769	1200	832	4450	529		

# POWERTECH RS2 TETRAVEC 250K

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 4700rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 4700rpm$   
 $K_i = 1.3$  if  $n_i > 4700rpm$

### RS2 TETRAVEC 250K

Poles: 2p=2

MAX MECHANICAL SPEED: 7500rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
250K.1	400	3500	58,6	655	400	240	95,5	7500	850	515	312	6400	266	0,92	1000
	400	4610	77,0	560	435	270	96,0	7500	725	563	350	7500	350		
	460	3450	57,8	655	343	237	95,5	7500	850	441	308	6300	258		
	460	4420	73,8	560	363	259	96,0	7500	725	470	336	7400	331		
250K.2	400	3380	56,6	815	480	288	96,0	7500	1060	615	375	6800	340	1,1	1250
	400	4650	77,8	675	525	328	96,0	7500	875	680	426	7500	426		
	460	3240	54,2	815	400	276	96,0	7500	1060	513	359	6500	311		
	460	4280	71,6	690	430	310	96,0	7500	900	558	402	7500	402		
250K.3	400	3400	56,9	1010	590	360	96,0	7500	1315	760	468	7500	468	1,4	1550
	375	4600	76,9	850	700	410	96,0	7500	1105	905	533	7500	533		
	460	3130	52,3	1010	472	331	96,0	7500	1315	605	430	6900	396		
	460	4230	70,7	870	536	385	96,0	7500	1130	693	501	7500	501		
250K.4	400	3550	59,4	1250	770	465	96,0	7500	1625	980	605	7500	605	1,7	2000
	310	4500	75,2	1080	1040	510	96,0	7500	1405	1350	663	7500	663		
	460	3060	51,2	1290	596	414	96,0	7500	1625	733	520	7350	510		
	460	4450	74,4	1085	694	505	96,0	7500	1410	900	657	7500	867		
250K.5	320	3400	56,9	1550	1130	552	96,0	7500	2015	1450	717	7500	717	2,2	2500
	385	4510	75,4	1345	1040	635	96,5	7500	1748	1345	826	7500	826		
	460	3260	54,5	1550	754	529	96,0	7500	2015	967	688	7500	688		
	410	4800	80,3	1310	1012	658	96,5	7500	1703	1310	856	7500	856		

# POWERTECH RS4 TETRAVEC 315LA

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 3200rpm$   $rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$   $K_i = 1$  if  $n_i \leq 3200rpm$   
 $K_i = 1.3$  if  $n_i > 3200rpm$

## RS4 TETRAVEC 315LA

Poles: 2p=4

MAX MECHANICAL SPEED: 6000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
315LA.1	400	2570	86,0	2080	930	560	95,5	5200	2705	1210	728	3900	473	4,3	3200
	400	3300	110,4	1810	1030	625	96,0	6000	2350	1350	812	4800	650		
	460	2560	85,5	2080	804	558	95,5	5200	2705	605	725	3900	471		
	460	3290	110,1	1810	893	624	96,0	6000	2350	2025	810	4800	648		
315LA.2	400	2270	85,5	2800	1100	665	96,0	4800	3635	1435	865	3650	526	5,6	4200
	360	3400	113,7	2400	1555	854	96,5	6000	3120	2040	1110	5100	944		
	460	2260	85,3	2800	954	662	96,0	4800	3635	1240	860	3650	523		
	460	2810	96,9	2550	1069	750	96,5	5450	3315	1402	975	4200	683		
315LA.3	370	2490	83,3	3450	1600	900	96,5	5500	4490	2080	1170	4250	829	7,1	5300
	400	3500	98,8	3000	1800	1100	96,0	6000	3900	2350	1430	5200	1239		
	460	2000	69,0	3630	1087	760	96,0	4400	4720	1413	988	3400	560		
	460	3480	98,3	3000	1556	1094	96,0	6000	3900	2032	1422	5150	1220		
315LA.4	400	2200	73,7	4255	1610	980	96,0	5000	5530	2090	1274	3800	807	8,6	6500
	400	2850	95,4	3785	1840	1130	96,0	5600	4925	2410	1469	4400	1077		
	460	2530	84,8	4190	1586	1110	96,0	5750	5450	2058	1443	4350	1046		
	460	3280	109,7	3580	1742	1230	96,0	6000	4660	2280	1600	5050	1347		



# POWERTECH HS2 TETRAVEC 225

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $\text{rpm}_m \leq 8000\text{rpm}$

$$\text{rpm}_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 8000\text{rpm}$   
 $K_i = 1.3$  if  $n_i > 8000\text{rpm}$

## HS2 TETRAVEC 225

Poles: 2p=2

MAX MECHANICAL SPEED: 10000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
225.1	400	4340	72,7	275	206	125	95,0	9500	358	269	163	7600	125	0,31	420
	400	5690	95,3	234	223	139	95,0	10000	304	294	181	9400	170		
	460	4280	71,7	275	177	123	95,0	9350	358	230	160	7500	120		
	460	5890	98,6	234	200	144	95,0	10000	304	264	187	9750	185		
225.2	400	4320	72,4	318	228	144	95,5	9600	414	305	187	7800	145	0,36	500
	400	5490	91,9	267	245	154	95,5	10000	347	321	200	9500	190		
	460	4470	74,9	318	205	149	95,5	9950	414	275	194	8050	155		
	460	5610	93,9	267	218	157	95,5	10000	347	285	204	9700	200		
225.3	400	4090	68,6	370	259	159	95,0	10000	481	336	206	8000	165	0,42	580
	400	5330	89,1	310	274	173	95,5	10000	403	359	225	9800	220		
	460	4180	70,1	370	230	162	95,0	10000	481	299	211	8200	175		
	460	5360	89,7	310	239	174	95,5	10000	403	314	226	9850	225		
225.4	400	3940	66,0	442	295	182	95,5	10000	575	369	237	8800	210	0,48	700
	400	5120	85,6	372	316	200	95,5	10000	484	418	260	9700	250		
	460	3960	66,4	442	258	183	95,5	10000	575	323	238	8850	210		
	460	5040	84,4	372	271	197	95,5	10000	484	358	256	9550	245		
225.5	400	3380	56,7	619	372	219	95,0	10000	804	451	285	8000	230	0,60	900
	400	4370	73,2	554	413	253	95,5	10000	720	528	329	9200	305		
	460	3330	55,8	619	319	216	95,0	10000	804	387	280	7900	220		
	460	4190	70,1	554	344	243	95,5	10000	720	440	316	8800	280		

# POWERTECH HS2 TETRAVEC 280

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 8000rpm$   $rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$   $K_i = 1$  if  $n_i \leq 8000rpm$   
 $K_i = 1.3$  if  $n_i > 8000rpm$

## HS2 TETRAVEC 280

Poles: 2p=2

MAX MECHANICAL SPEED: 10000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
280.1	400	3570	59,8	570	356	214	95,5	8500	745	503	278	6400	180	0,92	900
	400	4660	78,0	485	383	238	96,0	10000	635	546	309	7600	235		
	460	3520	58,9	570	305	211	95,5	8400	745	431	274	6300	170		
	460	4470	74,7	485	319	228	96,0	9600	635	455	296	7300	215		
280.2	400	3450	57,7	710	427	257	96,0	9000	925	547	334	6800	225	1,1	1100
	400	4700	78,6	585	462	289	96,0	10000	765	598	375	8800	330		
	460	3310	55,3	710	356	246	96,0	8650	925	456	320	6500	210		
	460	4320	72,3	585	370	265	96,0	10000	765	479	345	8100	280		
280.3	400	3470	58,0	880	525	320	96,0	9700	1145	676	417	7500	310	1,4	1400
	375	4650	77,7	740	616	361	96,0	10000	965	796	469	9800	460		
	460	3190	53,4	880	420	295	96,0	8900	1145	541	383	6900	265		
	460	4280	71,5	740	462	332	96,0	10000	965	597	432	9000	390		
280.4	400	3620	60,6	1090	685	414	96,0	10000	1420	872	538	8500	455	1,7	1800
	310	4550	76,0	940	915	449	96,0	10000	1225	1188	583	10000	583		
	460	3120	52,3	1090	514	357	96,0	9900	1420	654	464	7350	340		
	460	4500	75,1	940	610	444	96,0	10000	1225	792	577	10000	577		
280.5	320	3470	58,0	1352	1006	491	96,0	10000	1757	1291	638	8800	560	2,2	2000
	385	4560	76,2	1170	915	559	96,5	10000	1522	1184	726	10000	726		
	460	3320	55,6	1352	670	470	96,0	10000	1757	860	611	8400	515		
	410	4860	81,1	1170	915	596	96,5	10000	1522	1184	774	10000	774		

# POWERTECH HS2 TETRAVEC 355

## IP21 ASYNCHRONOUS MOTORS

# WINDINGS

High performance bearings, radial or axial loads are not allowed. The max. mechanical speed have to be defined after evaluation of customer's requirements, incl. the mechanical features of his plant and the applied accessories.

Average bearings life  $D_{10h}$ : 12000h at average operating speed  $rpm_m \leq 7000rpm$

$$rpm_m = \frac{(\sum_{i=0}^T K_i n_i t_i)}{(\sum_{i=0}^T t_i)}$$

$K_i = 1$  if  $n_i \leq 7000rpm$   
 $K_i = 1.3$  if  $n_i > 7000rpm$

## HS2 TETRAVEC 355

Poles: 2p=2

MAX MECHANICAL SPEED: 9000rpm

SIZE	Voltage V	Speed RPM	Freq. HZ	DUTY S1					DUTY S6/40%				Max Power at max speed kW	J Kgm <sup>2</sup>	Tmax Nm
				Tn Nm	In A	Pn kW	Eff. %	Constant power max speed RPM	Tol Nm	Iol A	Pol kW	Constant power max speed RPM			
355.1	400	2990	50,1	1150	590	360	96,0	7200	1500	770	470	5400	280	2,28	1800
	400	4010	67,1	1000	675	420	96,0	8700	1300	880	546	7000	425		
	460	2860	47,9	1150	495	345	96,0	6900	1500	640	450	5150	260		
	460	4720	78,9	950	655	470	96,0	9000	1235	860	610	8500	575		
355.2	400	2900	48,5	1500	735	455	96,0	7400	1950	955	592	5600	370	2,95	2300
	400	4040	67,5	1300	880	550	96,5	9000	1690	1135	715	7200	570		
	460	2640	44,2	1540	600	426	96,0	6750	2025	785	560	5100	315		
	460	4040	67,5	1300	763	550	96,5	9000	1690	1703	715	7200	570		
355.3	400	3020	50,5	1850	945	585	96,0	8500	2405	1220	761	6400	540	3,75	3000
	365	4460	74,5	1500	1220	700	96,5	9000	1950	1590	910	8200	830		
	460	3010	50,3	1850	819	583	96,0	8450	2405	1830	758	6400	540		
	460	3560	59,5	1650	860	615	96,5	9000	2145	1120	800	7100	630		
355.4	330	3040	50,9	2200	1360	700	96,5	8400	2860	1750	910	6400	645	4,52	3600
	400	4610	77,5	1760	1350	850	96,5	9000	2290	1740	1105	8800	1080		
	460	2820	47,2	2200	907	650	96,5	7800	2860	1167	844	5950	560		
	460	4610	77,5	1760	1174	850	96,5	9000	2290	1505	1105	8800	1080		

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