

Crear a better life with smart drive

CUMARK

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**ETCZ series high-efficiency synchronous
reluctance motor**
**ES series variable frequency synchronous
reluctance AC Drive combination set**

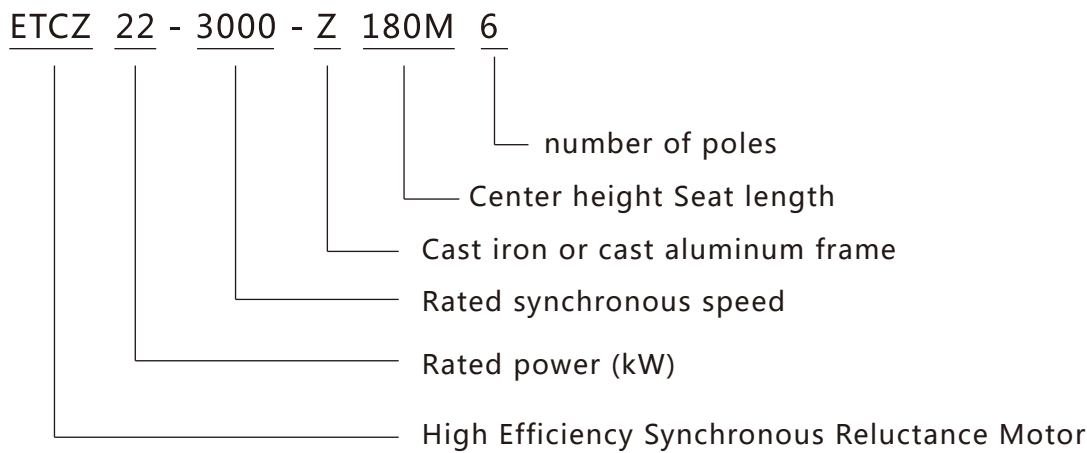
Summary

The ETCZ series three-phase synchronous reluctance motors that meet the IE4/IE5 efficiency standards of IEC TS 60034-30-2 are the latest green and energy-saving motors developed by our company. They adopt a new rare earth-free rotor topology and frequency conversion technology, and have no encoder vector Controlled operation has the advantages of high efficiency, reliable operation, and good installation interchangeability.

Main feature

- Simple and reliable structure: encoderless vector control, which can realize stable stepless speed regulation from 0 to 1.8 times the rated speed, and can realize unlimited starts and stops.
- Reliable operation: The new rotor topology without rare earths completely eliminates the risk of demagnetization of permanent magnet motors.
- High power density and small size: the motor rotor and the stator rotating magnetic field run synchronously without slip loss, and the stator winding does not need to absorb reactive current from the grid, thus greatly reducing the motor loss and temperature rise, and the quality of the motor under the same power and torque And the volume can be reduced by 20%, and the frame size or center height can be reduced by 1 grade.
- Ultra-high efficiency operation: truly ultra-high efficiency, IEC TS 60034-30-2 IE4/IE5 efficiency standard. At the same time the motor provides excellent efficiency over the entire speed or power range.

Motor Model Naming Rules description :



Architectural feature

Fram size			132	160	180	200	225	250	280	315	355	400
Mechanical Properties												
Frame/End shield /Terminal boxes		Material	aluminum alloy	Cast Iron								
Mounting			B3/B35/B5									
IP Grade			IP55									
Cooling Method			IC411（TEFC）									
Earth			Terminal box and housing					Terminal box, housing double earth				
Fan		Material	Engineering plastic									
Fan cover		Material	Steel									
Bearing	Dust cover/clearance		ZZ/C3	/C3								
	Bearing fix		DE fix, NDE with Wave spring washer									
	DE fix bearings	2P	6308	6309	6311	6312	6312	6313	6314	6317	6319	-----
		4-8P	6308	6309	6311	6312	6313	6314	6317	NU319	NU6322	NU6236
	NDE fix bearings	2P	6308	6309	6311	6312	6312	6313	6314	6317	6319	-----
		4-8P	6308	6309	6311	6312	6312	6313	6314	6319	6322	6326
Shaft seal method			Lip skeleton oil seal									
Seam sealed			Sealant									
Lubrication	Material		ESSO UNIREX N2									
	Oil pipe		/	End shield oiling device						Oiling pipe		
Terminal board		Material	BMC six terminals									
In-box hole	Screw thread		2×M25×	2×M40×1.5		2×M50×1.5		2×M63×1.5				
	plug		With rubber blind cover for transportation and storage									
Shaft	Material		45#Steel45#									
	Screw thread		M12	M16	M16	M20	M20	M20	M20	M20	M24	M24
Key			B type									
vibration limit（mm/s）			1.6	2.2						2.8		
Balance			1/2 key G2.5 grade									
Nameplate		Material	Stainless steel									
Electrical performance												
Voltage			380/400V(or440/460V)six terminals									
Frequency			50Hz（to 60Hz）									
Winding	Material		high purity copper									
	Dipping method		Dipping and drying									
	Insulation grade		155（F）									
Service Factor			1.0									

Main Specifications & Technical Data
IE5 rated speed 3000rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min	Efficiency (%)	Power Factor cos Φ	Rated Frequency (Hz)	service factor	Weight (kg)
ETCZ5.5-3000-Z132S6	5.5	400	12.8	3000	92.6	0.670	150	1.0	65
ETCZ7.5-3000-Z132S6	7.5		17		93.3	0.683			71
ETCZ11-3000-Z160M6	11		24.7		94.0	0.684			117
ETCZ15-3000-Z160M6	15		33.5		94.5	0.684			125
ETCZ18.5-3000-Z160L6	18.5		41.1		94.9	0.685			147
ETCZ22-3000-Z180M6	22		47.1		95.1	0.709			180
ETCZ30-3000-Z200L6	30		63.1		95.5	0.719			240
ETCZ37-3000-Z200L6	37		77.4		95.8	0.720			255
ETCZ45-3000-Z225M4	45		91.7		96.0	0.738	100		309
ETCZ55-3000-Z250M4	55		110		96.2	0.750			403
ETCZ75-3000-Z280S4	75		146		96.5	0.768			544
ETCZ90-3000-Z280M4	90		175		96.6	0.768			620
ETCZ110-3000-Z315S4	110		213		96.8	0.770			1000
ETCZ132-3000-Z315M4	132		253		96.9	0.777			1080
ETCZ160-3000-Z315L4	160		306		97.0	0.778			1160
ETCZ200-3000-Z315L4	200		382		97.2	0.777			1190
ETCZ250-3000-Z355M4	250		477		97.2	0.778			1760
ETCZ315-3000-Z355L4	315		600		97.2	0.780			1850
ETCZ355-3000-Z355L4	355		674		97.2	0.782			1920
ETCZ375-3000-Z355L4	375		710		97.2	0.784			1990

IE5 rated speed 3000rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (Hz)	Number of poles pairs	Variable frequency synchronous reluctance drive model	General Load Application		Heavy Load Application	
						ILd (A)	Pld (kW)	IHd (A)	PHd (kW)
ETCZ5.5-3000-Z132S6	5.5	12.8	150	3	ES580H-01-5K5G/7K5P-3B	17.5	7.5	14.5	5.5
ETCZ7.5-3000-Z132S6	7.5	17	150	3	ES580H-02-7K5G/011P-3B	25	11	17.6	7.5
ETCZ11-3000-Z160M6	11	24.7	150	3	ES580H-02-011G/015P-3B	26	15	25	11
ETCZ15-3000-Z160M6	15	33.5	150	3	ES580H-02A-015G/018P-3B	38.6	18.5	35	15
ETCZ18.5-3000-Z160L6	18.5	41.1	150	3	ES580H-03-018G/022P-3B	46	22	41	18.5
ETCZ22-3000-Z180M6	22	47.1	150	3	ES580H-03-022G/030P-3B	61	30	48	22
ETCZ30-3000-Z200L6	30	63.1	150	3	ES580H-04-030G/037P-3/B	75	37	66	30
ETCZ37-3000-Z200L6	37	77.4	150	3	ES580H-04-037G/045P-3/B	91	45	79	37
ETCZ45-3000-Z225M4	45	91.7	100	2	ES580H-04-045G/055P-3/B	115	55	94	45
ETCZ55-3000-Z250M4	55	110	100	2	ES580H-05-055G/075P-3/B	155	75	116	55
ETCZ75-3000-Z280S4	75	146	100	2	ES580H-05-075G/090P-3/B	178	90	160	75
ETCZ90-3000-Z280M4	90	175	100	2	ES580H-05-090G/110P-3/B	215	110	179	90

ETCZ110-3000-Z315S4	110	213	100	2	ES580H-06-110G/132P-3	261	132	215	110
ETCZ132-3000-Z315M4	132	253	100	2	ES580H-06-132G/160P-3	310	160	259	132
ETCZ160-3000-Z315L4	160	306	100	2	ES580H-07-160G/200P-3	387	200	314	160
ETCZ200-3000-Z315L4	200	382	100	2	ES580H-07-200G/220P-3	450	250	387	200
ETCZ250-3000-Z355M4	250	477	100	2	ES580H-08-250G/280P-3	600	315	481	250
ETCZ315-3000-Z355L4	315	600	100	2	ES580H-08-315G/355P-3	660	355	616	315
ETCZ355-3000-Z355L4	355	674	100	2	ES580H-09-355G/400P-3	720	400	675	355
ETCZ375-3000-Z355L4	375	710	100	2	ES580H-09-400G/450P-3	810	450	720	400

IE5 rated speed 3000rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (Hz)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated Value		General Load Application	
						In (A)	I _{max} (A)	ILd (A)	Pld (kW)
ETCZ5.5-3000-Z132S6	5.5	12.8	150	3	ES580H-01-4K0G/5K5P-3B	18.2	25	13.5	5.5
ETCZ7.5-3000-Z132S6	7.5	17	150	3	ES580H-01-5K5G/7K5P-3B	26	36	17.5	7.5
ETCZ11-3000-Z160M6	11	24.7	150	3	ES580H-02-7K5G/011P-3B	37	50	25	11
ETCZ15-3000-Z160M6	15	33.5	150	3	ES580H-02A-011G/015P-3B	41	57	35	15
ETCZ18.5-3000-Z160L6	18.5	41.1	150	3	ES580H-03-018G/022P-3B	48	67	47.5	22
ETCZ22-3000-Z180M6	22	47.1	150	3	ES580H-03-018G/022P-3B	48	67	47.5	22
ETCZ30-3000-Z200L6	30	63.1	150	3	ES580H-03-022G/030P-3B*	63.5	89	61	30
ETCZ30-3000-Z200L6	30	63.1	150	3	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-3000-Z200L6	37	77.4	150	3	ES580H-04-030G/037P-3/B*	78	109	75	37
ETCZ37-3000-Z200L6	37	77.4	150	3	ES580H-04-037G/045P-3/B	95	133	91	45
ETCZ45-3000-Z225M4	45	91.7	100	2	ES580H-04-037G/045P-3/B*	95	133	91	45
ETCZ45-3000-Z225M4	45	91.7	100	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-3000-Z250M4	55	110	100	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ75-3000-Z280S4	75	146	100	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-3000-Z280M4	90	175	100	2	ES580H-05-075G/090P-3/B	185	222	178	90
ETCZ110-3000-Z315S4	110	213	100	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ132-3000-Z315M4	132	253	100	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ160-3000-Z315L4	160	306	100	2	ES580H-06-132G/160P-3	320	384	310	160
ETCZ200-3000-Z315L4	200	382	100	2	ES580H-07-160G/200P-3	395	450	387	200
ETCZ250-3000-Z355M4	250	477	100	2	ES580H-07-220G/250P-3*	487	584	450	250
ETCZ250-3000-Z355M4	250	477	100	2	ES580H-07-250G/280P-3	546	628	525	280
ETCZ315-3000-Z355L4	315	600	100	2	ES580H-08-280G/315P-3	624	718	600	315
ETCZ355-3000-Z355L4	355	674	100	2	ES580H-08-315G/355P-3*	686	789	660	355
ETCZ355-3000-Z355L4	355	674	100	2	ES580H-09-355G/400P-3	760	874	720	400
ETCZ375-3000-Z355L4	375	710	100	2	ES580H-09-355G/400P-3	760	874	720	400

*Description:
1) When the ES580H-03-022G/030P-3B synchronous reluctance driver drives the ETCZ30-3000-Z200L6 motor, the rated current overload is 116% every 10 minutes for one minute.
2) When the ES580H-04-030G/037P-3/B synchronous reluctance driver drives the ETCZ37-3000-Z200L6 motor, the rated current overload is 116% every 10 minutes for one minute.
3) When the ES580H-04-037G/045P-3/B synchronous reluctance driver drives the ETCZ45-3000-Z225M4 motor, the rated current overload is 119% every 10 minutes for one minute.
4) When the ES580H-07-220G/250P-3 synchronous reluctance driver drives the ETCZ250-3000-Z355M4 motor, the rated current overload is 113% every 10 minutes for one minute.
5) When the ES580H-08-315G/355P-3 synchronous reluctance driver drives the ETCZ355-3000-Z355L4 motor, the rated current overload is 117.5% every 10 minutes for one minute.

IE5 rated speed 1500rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor $\cos\Phi$	Rated Frequency (Hz)	service	Weight (kg)
ETCZ5.5-1500-Z132S6	5.5	400	12.7	1500	93.40	0.669	75	1.0	71
ETCZ7.5-1500-Z132M6	7.5		17.0		94.00	0.677			85
ETCZ11-1500-Z160M6	11		24.2		94.60	0.694			129
ETCZ15-1500-Z160L6	15		32.3		95.10	0.705			151
ETCZ18.5-1500-Z180M6	18.5		39.7		95.30	0.706			191
ETCZ22-1500-Z180L6	22		46.4		95.50	0.717			200
ETCZ30-1500-Z200L6	30		62.8		95.90	0.719			284
ETCZ37-1500-Z225S4	37		77.1		96.10	0.721	50		298
ETCZ45-1500-Z225M4	45		92.5		96.30	0.729			336
ETCZ55-1500-Z250M4	55		113		96.50	0.728			448
ETCZ75-1500-Z280S4	75		153		96.70	0.732			590
ETCZ90-1500-Z280M4	90		181		96.90	0.743			700
ETCZ110-1500-Z315S4	110		219		97.00	0.747			1050
ETCZ132-1500-Z315M4	132		262		97.10	0.749			1155
ETCZ160-1500-Z315L4	160		316		97.20	0.752			1218
ETCZ200-1500-Z315L4	200		394		97.20	0.754			1334
ETCZ250-1500-Z355M4	250		491		97.20	0.756			1785
ETCZ315-1500-Z355L4	315		619		97.20	0.756			1943
ETCZ355-1500-Z355L4	355		696		97.20	0.757			2016
ETCZ375-1500-Z355L4	375		735		97.20	0.758			2090

IE5 rated speed 1500rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		Load Application	
						In(A)	I _{max} (A)	I _{Hd} (A)	P _{Hd} (kW)
ETCZ5.5-1500-Z132S6	5.5	12.7	75	3	ES580H-01-5K5G/7K5P-3B	18.2	25	14.5	5.5
ETCZ7.5-1500-Z132M6	7.5	17	75	3	ES580H-02-7K5G/011P-3B	26	36	17.6	7.5
ETCZ11-1500-Z160M6	11	24.2	75	3	ES580H-02A-011G/015P-3B	37	50	25	11
ETCZ15-1500-Z160L6	15	32.3	75	3	ES580H-02A-015G/018P-3B	41	57	35	15
ETCZ18.5-1500-Z180M6	18.5	39.7	75	3	ES580H-03-018G/022P-3B	48	67	41	18.5
ETCZ22-1500-Z180L6	22	46.4	75	3	ES580H-03-022G/030P-3B	63.5	89	48	22
ETCZ30-1500-Z200L6	30	62.8	75	3	ES580H-04-030G/037P-3/B	78	109	66	30
ETCZ37-1500-Z225S4	37	77.1	50	2	ES580H-04-037G/045P-3/B	95	133	79	37
ETCZ45-1500-Z225M4	45	92.5	50	2	ES580H-04-045G/055P-3/B	120	168	94	45
ETCZ55-1500-Z250M4	55	113	50	2	ES580H-05-055G/075P-3/B	162	227	116	55
ETCZ75-1500-Z280S4	75	153	50	2	ES580H-05-075G/090P-3/B	185	222	160	75
ETCZ90-1500-Z280M4	90	181	50	2	ES580H-05-090G/110P-3/B*	225	270	179	90
ETCZ90-1500-Z280M4	90	181	50	2	ES580H-06-110G/132P-3	272	326	215	110
ETCZ110-1500-Z315S4	110	219	50	2	ES580H-06-110G/132P-3	272	326	215	110

- *Description:
- 1) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ90-1500-Z280M4 motor, the rated current overload is 148% every 10 minutes for one minute.
 - 2) When the ES580H-06-132G/160P-3 synchronous reluctance driver drives the ETCZ132-1500-Z315M4 motor, the rated current overload is 148% every 10 minutes for one minute.

ETCZ132-1500-Z315M4	132	262	50	2	ES580H-06-132G/160P-3*	320	384	259	132
ETCZ132-1500-Z315M4	132	262	50	2	ES580H-07-160G/200P-3	375	450	317	160
ETCZ160-1500-Z315L4	160	316	50	2	ES580H-07-160G/200P-3	375	450	317	160
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-200G/220P-3	450	540	395	200
ETCZ250-1500-Z355M4	250	491	50	2	ES580H-08-250G/280P-3	546	628	495	250
ETCZ315-1500-Z355L4	315	619	50	2	ES580H-08-315G/355P-3	686	789	620	315
ETCZ355-1500-Z355L4	355	696	50	2	ES580H-09-400G/450P-3	865	995	736	400
ETCZ375-1500-Z355L4	375	735	50	2	ES580H-09-400G/450P-3	865	995	736	400

IE5 rated speed 1500rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated Value		General Load Application	
						In(A)	I _{max} (A)	I _{Ld} (A)	P _{ld} (kW)
ETCZ5.5-1500-Z132S6	5.5	12.7	75	3	ES580H-01-4K0G/5K5P-3B	14	20	13.5	5.5
ETCZ7.5-1500-Z132M6	7.5	17	75	3	ES580H-01-5K5G/7K5P-3B	18.2	25	17.5	7.5
ETCZ11-1500-Z160M6	11	24.2	75	3	ES580H-02-7K5G/011P-3B	26	36	25	11
ETCZ15-1500-Z160L6	15	32.3	75	3	ES580H-02A-011G/015P-3B	37	50	35	15
ETCZ18.5-1500-Z180M6	18.5	39.7	75	3	ES580H-02A-015G/018P-3B	41	57	38.6	18.5
ETCZ22-1500-Z180L6	22	46.4	75	3	ES580H-03-018G/022P-3B	48	67	47.5	22
ETCZ30-1500-Z200L6	30	62.8	75	3	ES580H-03-022G/030P-3B*	63.5	89	61	30
ETCZ30-1500-Z200L6	30	62.8	75	3	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-1500-Z225S4	37	77.1	50	2	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ45-1500-Z225M4	45	92.5	50	2	ES580H-04-037G/045P-3/B*	95	133	91	45
ETCZ45-1500-Z225M4	45	92.5	50	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-1500-Z250M4	55	113	50	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ75-1500-Z280S4	75	153	50	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-1500-Z280M4	90	181	50	2	ES580H-05-075G/090P-3/B*	185	222	178	90
ETCZ90-1500-Z280M4	90	181	50	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ110-1500-Z315S4	110	219	50	2	ES580H-05-090G/110P-3/B*	225	270	215	110
ETCZ110-1500-Z315S4	110	219	50	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ132-1500-Z315M4	132	261	50	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ160-1500-Z315L4	160	316	50	2	ES580H-06-132G/160P-3*	320	384	310	160
ETCZ160-1500-Z315L4	160	316	50	2	ES580H-07-160G/200P-3	395	450	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-160G/200P-3*	395	450	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-200G/220P-3	450	540	427	220
ETCZ250-1500-Z355M4	250	491	50	2	ES580H-07-250G/280P-3	546	628	525	280
ETCZ315-1500-Z355L4	315	619	50	2	ES580H-08-315G/355P-3	686	789	660	355
ETCZ355-1500-Z355L4	355	696	50	2	ES580H-09-355G/400P-3	760	874	720	400
ETCZ375-1500-Z355L4	375	735	50	2	ES580H-09-400G/450P-3	865	995	810	450

- *Description:
- 1) When the ES580H-03-022G/030P-3B synchronous reluctance driver drives the ETCZ30-1500-Z200L6 motor, the rated current overload is 116.5% every 10 minutes for one minute.
 - 2) When the ES580H-04-037G/045P-3/B synchronous reluctance driver drives the ETCZ45-1500-Z225M4 motor, the rated current overload is 118% every 10 minutes for one minute.
 - 3) When the ES580H-05-075G/090P-3/B synchronous reluctance driver drives the ETCZ90-1500-Z280M4 motor, the rated current overload is 118% every 10 minutes for one minute.
 - 4) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ110-1500-Z315S4 motor, the rated current overload is 117.8% every 10 minutes for one minute.
 - 5) When the ES580H-06-132G/160P-3 synchronous reluctance driver drives the ETCZ160-1500-Z315L4 motor, the rated current overload is 117.7% every 10 minutes for one minute.
 - 6) When the ES580H-07-160G/200P-3 synchronous reluctance driver drives the ETCZ200-1500-Z315L4 motor, the rated current overload is 117.8% every 10 minutes for one minute.

IE5 Rated speed 1000rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor cosΦ	Rated Frequency	service	Weight (kg)
ETCZ3-1000- Z132S6	3. 0	400	7. 52	1000	90. 6	0. 636	50	1. 0	66
ETCZ4-1000-Z132M6	4. 0		9. 81		91. 4	0. 644			77
ETCZ5. 5-1000-Z132M6	5. 5		13. 1		92. 2	0. 657			88
ETCZ7. 5-1000-Z160M6	7. 5		17. 7		92. 9	0. 658			124
ETCZ11-1000-Z160L6	11		25. 5		93. 7	0. 665			153
ETCZ15-1000-Z180L6	15		34. 1		94. 3	0. 673			16
ETCZ18. 5-1000-Z200L6	18. 5		41. 5		94. 6	0. 680			230
ETCZ22-1000-Z200L6	22		48. 2		94. 9	0. 694			261
ETCZ30-1000-Z225M4	30		64. 1		95. 3	0. 709	33. 3		304
ETCZ37-1000-Z250M4	37		77. 9		95. 6	0. 717			426
ETCZ45-1000-Z280S4	45		93. 7		95. 8	0. 724			559
ETCZ55-1000-Z280M4	55		113		96	0. 732			621
ETCZ75-1000-Z315S4	75		152		96. 3	0. 740			1033
ETCZ90-1000-Z315M4	90		180		96. 5	0. 748			1127
ETCZ110-1000-Z315L4	110		219		96. 6	0. 751			1200
ETCZ132-1000-Z315L4	132		259		96. 8	0. 760			1263
ETCZ160-1000-Z355M4	160		311		96. 9	0. 766			1670
ETCZ200-1000-Z355L4	200		388		97	0. 767			1774
ETCZ250-1000-Z355L4	250		484		97	0. 769			1878

IE5 rated speed 1000rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequenc (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		Heavy Load Application	
						In (A)	I _{max} (A)	I _{Hd} (A)	PH _d (kW)
ETCZ3-1000- Z132S6	3	7. 52	50	3	ES580H-01-4K0G/5K5P-3B	14	20	10. 5	4
ETCZ4-1000-Z132M6	4	9. 81	50	3	ES580H-01-4K0G/5K5P-3B	14	20	10. 5	4
ETCZ5. 5-1000-Z132M6	5. 5	13. 1	50	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	14. 5	5. 5
ETCZ7. 5-1000-Z160M6	7. 5	17. 6	50	3	ES580H-02-7K5G/011P-3B	26	36	17. 6	7. 5
ETCZ11-1000-Z160L6	11	25	50	3	ES580H-02A-011G/015P-3B	37	50	25	11
ETCZ15-1000-Z180L6	15	34. 1	50	3	ES580H-02A-015G/018P-3B	41	57	35	15
ETCZ18. 5-1000-Z200L6	18. 5	41	50	3	ES580H-03-018G/022P-3B	48	67	41	18. 5
ETCZ22-1000-Z200L6	22	48	50	3	ES580H-03-022G/030P-3B	63. 5	89	48	22
ETCZ30-1000-Z225M4	30	64. 1	33. 3	2	ES580H-04-030G/037P-3/B	78	109	66	30
ETCZ37-1000-Z250M4	37	77. 9	33. 3	2	ES580H-04-037G/045P-3/B	95	133	79	37
ETCZ45-1000-Z280S4	45	93. 7	33. 3	2	ES580H-04-045G/055P-3/B	120	168	94	45
ETCZ55-1000-Z280M4	55	113	33. 3	2	ES580H-05-055G/075P-3/B	162	227	116	55
ETCZ75-1000-Z315S4	75	152	33. 3	2	ES580H-05-075G/090P-3/B	185	222	160	75
ETCZ90-1000-Z315M4	90	179	33. 3	2	ES580H-05-090G/110P-3/B	225	270	179	90
ETCZ110-1000-Z315L4	110	219	33. 3	2	ES580H-06-132G/160P-3	320	384	259	132

ETCZ132-1000-Z315L4	132	259	33. 3	2	ES580H-06-132G/160P-3	320	384	259	132
ETCZ160-1000-Z355M4	160	311	33. 3	2	ES580H-07-160G/200P-3	375	450	314	160
ETCZ200-1000-Z355L4	200	387	33. 3	2	ES580H-07-200G/220P-3	450	540	387	200
ETCZ250-1000-Z355L4	250	481	33. 3	2	ES580H-08-250G/280P-3	546	628	481	250

IE5 rated speed 1000rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		General Load Application	
						In (A)	I _{max} (A)	I _{ld} (A)	P _{ld} (kW)
ETCZ3-1000- Z132S6	3	7. 52	50	3	ES580H-01-2K2G/4K0P-3B	10. 5	15	9. 8	4
ETCZ4-1000-Z132M6	4	9. 8	50	3	ES580H-01-2K2G/4K0P-3B	10. 5	15	9. 8	4
ETCZ5. 5-1000-Z132M6	5. 5	13. 1	50	3	ES580H-01-4K0G/5K5P-3B	14	20	13. 5	5. 5
ETCZ7. 5-1000-Z160M6	7. 5	17. 5	50	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	17. 5	7. 5
ETCZ11-1000-Z160L6	11	25	50	3	ES580H-02-7K5G/011P-3B	26	36	25	11
ETCZ15-1000-Z180L6	15	34. 1	50	3	ES580H-02A-011G/015P-3B	37	50	35	15
ETCZ18. 5-1000-Z200L6	18. 5	41. 5	50	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ22-1000-Z200L6	22	48. 2	50	3	ES580H-03-022G/030P-3B	63. 5	89	61	30
ETCZ30-1000-Z225M4	30	64. 1	33. 3	2	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-1000-Z250M4	37	77. 9	33. 3	2	ES580H-04-037G/045P-3/B	95	133	91	45
ETCZ45-1000-Z280S4	45	93. 7	33. 3	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-1000-Z280M4	55	113	33. 3	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ75-1000-Z315S4	75	152	33. 3	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-1000-Z315M4	90	180	33. 3	2	ES580H-05-075G/090P-3/B*	185	222	178	90
ETCZ90-1000-Z315M4	90	180	33. 3	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ110-1000-Z315L4	110	219	33. 3	2	ES580H-05-090G/110P-3/B*	225	270	215	110
ETCZ110-1000-Z315L4	110	219	33. 3	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ132-1000-Z315L4	132	259	33. 3	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ160-1000-Z355M4	160	310	33. 3	2	ES580H-06-132G/160P-3	320	384	310	160
ETCZ200-1000-Z355L4	200	387	33. 3	2	ES580H-07-160G/200P-3	375	450	387	200
ETCZ250-1000-Z355L4	250	484	33. 3	2	ES580H-08-250G/280P-3	546	628	525	280

*Description:

1) When the ES580H-05-075G/090P-3/B synchronous reluctance driver drives the ETCZ90-1000-Z315M4 motor, the rated current overload is 118.6% every 10 minutes for one minute.

2) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ110-1000-Z315L4 motor, the rated current overload is 117.8% every 10 minutes for one minute.

IE4 Rated speed 3000rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor cos Φ	Rated Frequency (Hz)	service factor	Weight (kg)
ETCZ5. 5-3000-Z132S6	5. 5	400	13	3000	90. 9	0. 672	150	1. 0	61
ETCZ7. 5-3000-Z132S6	7. 5		17. 2		91. 7	0. 686			67
ETCZ11-3000-Z160M6	11		24. 9		92. 6	0. 689			110
ETCZ15-3000-Z160M6	15		33. 7		93. 3	0. 689			118
ETCZ18. 5-3000-Z160L6	18. 5		41. 3		93. 7	0. 690			139
ETCZ22-3000-Z180M6	22		47. 7		94	0. 708			170
ETCZ30-3000-Z200L6	30		63. 6		94. 5	0. 720			226
ETCZ37-3000-Z200L6	37		77. 8		94. 8	0. 724			241
ETCZ45-3000-Z225M4	45		92. 5		95	0. 739	100		292
ETCZ55-3000-Z250M4	55		112		95. 3	0. 744			380
ETCZ75-3000-Z280S4	75		148		95. 6	0. 765			513
ETCZ90-3000-Z280M4	90		177		95. 8	0. 766			585
ETCZ110-3000-Z315S4	110		214		96	0. 773			943
ETCZ132-3000-Z315M4	132		255		96. 2	0. 777			1019
ETCZ160-3000-Z315L4	160		307		96. 3	0. 781			1094
ETCZ200-3000-Z315L4	200		383		96. 5	0. 781			1123
ETCZ250-3000-Z355M4	250		478		96. 5	0. 782			1660
ETCZ315-3000-Z355L4	315		601		96. 5	0. 784			1745
ETCZ355-3000-Z355L4	355		675		96. 5	0. 787			1811
ETCZ375-3000-Z355L4	375		711		96. 5	0. 789			1877

IE4 rated speed 3000rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		Heavy Load Application	
						In (A)	I _{max} (A)	I _{Hd} (A)	PHd (kW)
ETCZ5. 5-3000-Z132S6	5. 5	13	150	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	14. 5	5. 5
ETCZ7. 5-3000-Z132S6	7. 5	17. 2	150	3	ES580H-02-7K5G/011P-3B	26	36	17. 6	7. 5
ETCZ11-3000-Z160M6	11	24. 9	150	3	ES580H-02A-011G/015P-3B	37	50	25	11
ETCZ15-3000-Z160M6	15	33. 7	150	3	ES580H-02A-015G/018P-3B	41	57	35	15
ETCZ18. 5-3000-Z160L6	18. 5	41	150	3	ES580H-03-018G/022P-3B	48	67	41	18. 5
ETCZ22-3000-Z180M6	22	47. 7	150	3	ES580H-03-022G/030P-3B	63. 5	89	48	22
ETCZ30-3000-Z200L6	30	63. 6	150	3	ES580H-04-030G/037P-3/B	78	109	66	30
ETCZ37-3000-Z200L6	37	77. 8	150	3	ES580H-04-037G/045P-3/B	95	133	79	37
ETCZ45-3000-Z225M4	45	92. 5	100	2	ES580H-04-045G/055P-3/B	120	168	94	45
ETCZ55-3000-Z250M4	55	112	100	2	ES580H-05-055G/075P-3/B	162	227	116	55
ETCZ75-3000-Z280S4	75	148	100	2	ES580H-05-075G/090P-3/B	185	222	160	75
ETCZ90-3000-Z280M4	90	177	100	2	ES580H-05-090G/110P-3/B	225	270	179	90
ETCZ110-3000-Z315S4	110	214	100	2	ES580H-06-110G/132P-3	272	326	215	110
ETCZ132-3000-Z315M4	132	255	100	2	ES580H-06-132G/160P-3	320	384	259	132

ETCZ160-3000-Z315L4	160	307	100	2	ES580H-07-160G/200P-3	375	450	314	160
ETCZ200-3000-Z315L4	200	383	100	2	ES580H-07-200G/220P-3	450	540	387	200
ETCZ250-3000-Z355M4	250	478	100	2	ES580H-08-250G/280P-3	546	628	481	250
ETCZ315-3000-Z355L4	315	601	100	2	ES580H-08-315G/355P-3	686	789	616	315
ETCZ355-3000-Z355L4	355	675	100	2	ES580H-09-355G/400P-3*	760	874	650	355
ETCZ355-3000-Z355L4	355	675	100	2	ES580H-09-400G/450P-3	865	995	720	400
ETCZ375-3000-Z355L4	375	711	100	2	ES580H-09-400G/450P-3	865	995	720	400

*Description： 1) When the ES580H-09-355G/400P-3 synchronous reluctance driver drives the ETCZ355-3000-Z355L4 motor, the rated current overload is 144% every 10 minutes for one minute.

IE4 rated speed 3000rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		General Load Application	
						In (A)	I _{max} (A)	I _{Id} (A)	P _{Id} (kW)
ETCZ5. 5-3000-Z132S6	5. 5	13	150	3	ES580H-01-4K0G/5K5P-3B	14	20	13. 5	5. 5
ETCZ7. 5-3000-Z132S6	7. 5	17. 2	150	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	17. 5	7. 5
ETCZ11-3000-Z160M6	11	24. 9	150	3	ES580H-02-7K5G/011P-3B	26	36	25	11
ETCZ15-3000-Z160M6	15	33. 7	150	3	ES580H-02A-011G/015P-3B	37	50	35	15
ETCZ18. 5-3000-Z160L6	18. 5	41. 3	150	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ22-3000-Z180M6	22	47. 7	150	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ30-3000-Z200L6	30	63. 6	150	3	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-3000-Z200L6	37	77. 8	150	3	ES580H-04-037G/045P-3/B	95	133	91	45
ETCZ45-3000-Z225M4	45	92. 5	100	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-3000-Z250M4	55	112	100	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ75-3000-Z280S4	75	148	100	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-3000-Z280M4	90	177	100	2	ES580H-05-075G/090P-3/B	185	222	178	90
ETCZ110-3000-Z315S4	110	214	100	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ132-3000-Z315M4	132	255	100	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ160-3000-Z315L4	160	307	100	2	ES580H-06-132G/160P-3	320	384	310	160
ETCZ200-3000-Z315L4	200	383	100	2	ES580H-07-160G/200P-3	375	450	387	200
ETCZ250-3000-Z355M4	250	478	100	2	ES580H-07-250G/280P-3	546	628	525	280
ETCZ315-3000-Z355L4	315	600	100	2	ES580H-08-280G/315P-3	624	718	600	315
ETCZ355-3000-Z355L4	355	675	100	2	ES580H-08-315G/355P-3*	686	789	660	355
ETCZ355-3000-Z355L4	355	675	100	2	ES580H-09-355G/400P-3	760	874	720	400
ETCZ375-3000-Z355L4	375	711	100	2	ES580H-09-355G/400P-3	760	874	720	400

*Description： 1) When the ES580H-08-315G/355P-3 synchronous reluctance driver drives the ETCZ355-3000-Z355L4 motor, the rated current overload is 117% every 10 minutes for one minute.

IE4 Rated speed 1500rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor cos Φ	Rated Frequency (Hz)	service factor	Weight (kg)	
ETCZ5. 5-1500-Z132S6	5. 5	400	13. 0	1500	91. 9	0. 665	75	1. 0	66	
ETCZ7. 5-1500-Z132M6	7. 5		17. 3		92. 6	0. 676			79	
ETCZ11-1500-Z160M6	11		24. 5		93. 3	0. 695			119	
ETCZ15-1500-Z160L6	15		32. 7		93. 9	0. 705			140	
ETCZ18. 5-1500-Z180M6	18. 5		39. 9		94. 2	0. 710			177	
ETCZ22-1500-Z180L6	22		46. 8		94. 5	0. 718			185	
ETCZ30-1500-Z200L6	30		63. 4		94. 9	0. 720	50		263	
ETCZ37-1500-Z225S4	37		77. 7		95. 2	0. 722			276	
ETCZ45-1500-Z225M4	45		93. 5		95. 4	0. 728			311	
ETCZ55-1500-Z250M4	55		114		95. 7	0. 728			415	
ETCZ75-1500-Z280S4	75		154		96. 0	0. 732			546	
ETCZ90-1500-Z280M4	90		182		96. 1	0. 743			648	
ETCZ110-1500-Z315S4	110		220		96. 3	0. 749			972	
ETCZ132-1500-Z315M4	132		263		96. 4	0. 752			1069	
ETCZ160-1500-Z315L4	160		317		96. 6	0. 754			1128	
ETCZ200-1500-Z315L4	200		394		96. 7	0. 758			1235	
ETCZ250-1500-Z355M4	250		492		96. 7	0. 758			1653	
ETCZ315-1500-Z355L4	315		620		96. 7	0. 758			1799	
ETCZ355-1500-Z355L4	355		697		96. 7	0. 760			1867	
ETCZ375-1500-Z355L4	375		736		96. 7	0. 761			1935	

IE4 rated speed 1500rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		Heavy Load Application	
						In (A)	I _{max} (A)	I _{Hd} (A)	P _{Hd} (kW)
ETCZ5. 5-1500-Z132S6	5. 5	13	75	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	14. 5	5. 5
ETCZ7. 5-1500-Z132M6	7. 5	17. 3	75	3	ES580H-02-7K5G/011P-3B	26	36	17. 6	7. 5
ETCZ11-1500-Z160M6	11	24. 5	75	3	ES580H-02A-011G/015P-3B	37	50	25	11
ETCZ15-1500-Z160L6	15	32. 7	75	3	ES580H-02A-015G/018P-3B	41	57	35	15
ETCZ18. 5-1500-Z180M6	18. 5	39. 9	75	3	ES580H-03-018G/022P-3B	48	67	41	18. 5
ETCZ22-1500-Z180L6	22	46. 8	75	3	ES580H-03-022G/030P-3B	63. 5	89	48	22
ETCZ30-1500-Z200L6	30	63. 4	75	3	ES580H-04-030G/037P-3/B	78	109	66	30
ETCZ37-1500-Z225S4	37	77. 7	50	2	ES580H-04-037G/045P-3/B	95	133	79	37
ETCZ45-1500-Z225M4	45	93. 5	50	2	ES580H-04-045G/055P-3/B	120	168	94	45
ETCZ55-1500-Z250M4	55	114	50	2	ES580H-05-055G/075P-3/B	162	227	116	55
ETCZ75-1500-Z280S4	75	154	50	2	ES580H-05-075G/090P-3/B	185	222	160	75
ETCZ90-1500-Z280M4	90	182	50	2	ES580H-05-090G/110P-3/B*	225	270	179	90
ETCZ90-1500-Z280M4	90	182	50	2	ES580H-06-110G/132P-3	272	326	215	110
ETCZ110-1500-Z315S4	110	220	50	2	ES580H-06-110G/132P-3*	272	326	215	110

ETCZ110-1500-Z315S4	110	220	50	2	ES580H-06-132G/160P-3	320	384	259	132
ETCZ132-1500-Z315M4	132	263	50	2	ES580H-06-132G/160P-3*	320	384	259	132
ETCZ132-1500-Z315M4	132	263	50	2	ES580H-07-160G/200P-3	375	450	314	160
ETCZ160-1500-Z315L4	160	317	50	2	ES580H-07-160G/200P-3*	375	450	314	160
ETCZ160-1500-Z315L4	160	317	50	2	ES580H-07-200G/220P-3	450	540	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-200G/220P-3*	450	540	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-220G/250P-3	487	584	450	220
ETCZ250-1500-Z355M4	250	492	50	2	ES580H-08-250G/280P-3*	546	628	481	250
ETCZ250-1500-Z355M4	250	492	50	2	ES580H-08-280G/315P-3	624	718	550	280
ETCZ315-1500-Z355L4	315	620	50	2	ES580H-08-315G/355P-3*	686	789	616	315
ETCZ315-1500-Z355L4	315	620	50	2	ES580H-09-355G/400P-3	760	874	650	355
ETCZ355-1500-Z355L4	355	697	50	2	ES580H-09-400G/450P-3	865	995	720	400
ETCZ375-1500-Z355L4	375	736	50	2	ES580H-09-450G/500P-3	950	1093	810	450

- *Description:
- 1) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ90-1500-Z280M4 motor, the rated current overload is 147.5% every 10 minutes for one minute.
 - 2) When the ES580H-06-110G/132P-3 synchronous reluctance driver drives the ETCZ110-1500-Z315S4 motor, the rated current overload is 146% every 10 minutes for one minute.
 - 3) When the ES580H-06-132G/160P-3 synchronous reluctance driver drives the ETCZ132-1500-Z315M4 motor, the rated current overload is 147% every 10 minutes for one minute.
 - 4) When the ES580H-07-160G/200P-3 synchronous reluctance driver drives the ETCZ160-1500-Z315L4 motor, the rated current overload is 148% every 10 minutes for one minute.
 - 5) When the ES580H-07-200G/220P-3 synchronous reluctance driver drives the ETCZ200-1500-Z315L4 motor, the rated current overload is 147% every 10 minutes for one minute.
 - 6) When the ES580H-08-250G/280P-3 synchronous reluctance driver drives the ETCZ250-1500-Z355M4 motor, the rated current overload is 146% every 10 minutes for one minute.
 - 7) When the ES580H-08-315G/355P-3 synchronous reluctance driver drives the ETCZ315-1500-Z355L4 motor, the rated current overload is 149% every 10 minutes for one minute.

IE4 rated speed 1500rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated value		General Load Application	
						In (A)	I _{max} (A)	I _{ld} (A)	P _{ld} (kW)
ETCZ5. 5-1500-Z132S6	5. 5	13	75	3	ES580H-01-4K0G/5K5P-3B	14	20	13. 5	5. 5
ETCZ7. 5-1500-Z132M6	7. 5	17. 3	75	3	ES580H-01-5K5G/7K5P-3B	18. 2	25	17. 5	7. 5
ETCZ11-1500-Z160M6	11	24. 5	75	3	ES580H-02-7K5G/011P-3B	26	36	25	11
ETCZ15-1500-Z160L6	15	32. 7	75	3	ES580H-02A-011G/015P-3B	37	50	35	15
ETCZ18. 5-1500-Z180M6	18. 5	39. 9	75	3	ES580H-02A-015G/018P-3B*	41	57	38. 6	18. 5
ETCZ18. 5-1500-Z180M6	18. 5	39. 9	75	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ22-1500-Z180L6	22	46	75	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ30-1500-Z200L6	30	63. 4	75	3	ES580H-03-022G/030P-3B*	63. 5	89	61	30
ETCZ30-1500-Z200L6	30	63. 4	75	3	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-1500-Z225S4	37	77. 7	50	2	ES580H-04-030G/037P-3/B*	78	109	75	37
ETCZ37-1500-Z225S4	37	77. 7	50	2	ES580H-04-037G/045P-3/B	95	133	91	45
ETCZ45-1500-Z225M4	45	93. 5	50	2	ES580H-04-037G/045P-3/B*	95	133	91	45
ETCZ45-1500-Z225M4	45	93. 5	50	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-1500-Z250M4	55	114	50	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ75-1500-Z280S4	75	154	50	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-1500-Z280M4	90	182	50	2	ES580H-05-075G/090P-3/B*	185	222	178	90
ETCZ90-1500-Z280M4	90	182	50	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ110-1500-Z315S4	110	220	50	2	ES580H-05-090G/110P-3/B*	225	270	215	110
ETCZ110-1500-Z315S4	110	220	50	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ132-1500-Z315M4	132	263	50	2	ES580H-06-110G/132P-3*	272	326	261	132

ETCZ132-1500-Z315M4	132	263	50	2	ES580H-06-132G/160P-3	320	384	310	160
ETCZ160-1500-Z315L4	160	317	50	2	ES580H-06-132G/160P-3*	320	384	310	160
ETCZ160-1500-Z315L4	160	317	50	2	ES580H-07-160G/200P-3	375	450	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-160G/200P-3*	375	450	387	200
ETCZ200-1500-Z315L4	200	394	50	2	ES580H-07-2000G/220P-3	450	540	427	220
ETCZ250-1500-Z355M4	250	492	50	2	ES580H-07-250G/280P-3	546	628	525	280
ETCZ315-1500-Z355L4	315	620	50	2	ES580H-08-315G/355P-3	686	789	660	355
ETCZ355-1500-Z355L4	355	697	50	2	ES580H-09-355G/400P-3	760	874	720	400
ETCZ375-1500-Z355L4	375	736	50	2	ES580H-09-400G/450P-3	865	995	810	450

*Description :
1) When the ES580H-02A-015G/018P-3B synchronous reluctance driver drives the ETCZ18.5-1500-Z180M6 motor, the rated current overload is 116% every 10 minutes for one minute.
2) When the ES580H-03-022G/030P-3B synchronous reluctance driver drives the ETCZ30-1500-Z200L6 motor, the rated current overload is 115% every 10 minutes for one minute.
3) When the ES580H-04-030G/037P-3/B synchronous reluctance driver drives the ETCZ37-1500-Z225S4 motor, the rated current overload is 116% every 10 minutes for one minute.
4) When the ES580H-04-037G/045P-3/B synchronous reluctance driver drives the ETCZ45-1500-Z225M4 motor, the rated current overload is 117% every 10 minutes for one minute.
5) When the ES580H-05-075G/090P-3/B synchronous reluctance driver drives the ETCZ90-1500-Z280M4 motor, the rated current overload is 117% every 10 minutes for one minute.
6) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ110-1500-Z315S4 motor, the rated current overload is 117% every 10 minutes for one minute.
7) When the ES580H-06-110G/132P-3 synchronous reluctance driver drives the ETCZ132-1500-Z315M4 motor, the rated current overload is 119% every 10 minutes for one minute.
8) When the ES580H-06-132G/160P-3 synchronous reluctance driver drives the ETCZ160-1500-Z315L4 motor, the rated current overload is 117% every 10 minutes for one minute.
9) When the ES580H-07-160G/200P-3 synchronous reluctance driver drives the ETCZ200-1500-Z315L4 motor, the rated current overload is 118% every 10 minutes for one minute.

IE4 Rated speed 1000rpm

Model	Rated Power (KW)	Rated Voltage (V)	Rated Current (A)	Rated Speed (r/min)	Efficiency (%)	Power Factor cosΦ	Rated Frequency (Hz)	service factor	Weight (kg)
ETCZ3-1000- Z132S6	3.0	400	7.71	1000	88.6	0.634	50	1.0	61
ETCZ4-1000-Z132M6	4.0		9.99		89.5	0.646			71
ETCZ5.5-1000-Z132M6	5.5		13.4		90.5	0.655			81
ETCZ7.5-1000-Z160M6	7.5		18		91.3	0.659			115
ETCZ11-1000-Z160L6	11		25.9		92.3	0.664			142
ETCZ15-1000-Z180L6	15		34.5		92.9	0.676			15
ETCZ18.5-1000-Z200L6	18.5		41.9		93.4	0.682			213
ETCZ22-1000-Z200L6	22		48.7		93.7	0.696			242
ETCZ30-1000-Z225M4	30		64.8		94.2	0.709	33.3		281
ETCZ37-1000-Z250M4	37		78.5		94.5	0.720			394
ETCZ45-1000-Z280S4	45		94.1		94.8	0.728			518
ETCZ55-1000-Z280M4	55		114		95.1	0.732			575
ETCZ75-1000-Z315S4	75		153		95.4	0.742			956
ETCZ90-1000-Z315M4	90		181		95.6	0.751			1044
ETCZ110-1000-Z315L4	110		220		95.8	0.753			1111
ETCZ132-1000-Z315L4	132		260		96	0.763			1169
ETCZ160-1000-Z355M4	160		312		96.2	0.769			1546
ETCZ200-1000-Z355L4	200		389		96.3	0.771			1643
ETCZ250-1000-Z355L4	250		485		96.5	0.771			1739

IE4 rated speed 1000rpm reluctance motor + AC Drive combination set (Heavy load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated Value		Heavy Load Application	
						In (A)	I _{max} (A)	I _{Hd} (A)	PHd (kW)
ETCZ3-1000- Z132S6	3	7.71	50	3	ES580H-01-4K0G/5K5P-3B	14	20	10.5	4
ETCZ4-1000-Z132M6	4	9.99	50	3	ES580H-01-4K0G/5K5P-3B	14	20	10.5	4
ETCZ5.5-1000-Z132M6	5.5	13.4	50	3	ES580H-01-5K5G/7K5P-3B	18.2	25	14.5	5.5
ETCZ7.5-1000-Z160M6	7.5	18	50	3	ES580H-02-011G/015P-3B	28	35	25	11
ETCZ11-1000-Z160L6	11	25	50	3	ES580H-02A-011G/015P-3B	37	50	25	11
ETCZ15-1000-Z180L6	15	34.5	50	3	ES580H-02A-015G/018P-3B	41	57	35	15
ETCZ18.5-1000-Z200L6	18.5	41	50	3	ES580H-03-018G/022P-3B	48	67	41	18.5
ETCZ22-1000-Z200L6	22	48	50	3	ES580H-03-022G/030P-3B	63.5	89	48	22
ETCZ30-1000-Z225M4	30	64.8	33.3	2	ES580H-04-030G/037P-3/B	78	109	66	30
ETCZ37-1000-Z250M4	37	78.5	33.3	2	ES580H-04-037G/045P-3/B	95	133	79	37
ETCZ45-1000-Z280S4	45	94	33.3	2	ES580H-04-045G/055P-3/B	120	168	94	45
ETCZ55-1000-Z280M4	55	114	33.3	2	ES580H-05-055G/075P-3/B	162	227	116	55
ETCZ75-1000-Z315S4	75	153	33.3	2	ES580H-05-075G/090P-3/B	185	222	160	75
ETCZ90-1000-Z315M4	90	179	33.3	2	ES580H-05-090G/110P-3/B	225	270	179	90
ETCZ110-1000-Z315L4	110	220	33.3	2	ES580H-06-110G/132P-3*	272	326	215	110
ETCZ110-1000-Z315L4	110	220	33.3	2	ES580H-06-132G/160P-3	320	384	259	132
ETCZ132-1000-Z315L4	132	259	33.3	2	ES580H-06-132G/160P-3	320	384	259	132
ETCZ160-1000-Z355M4	160	312	33.3	2	ES580H-07-160G/200P-3	375	450	314	160
ETCZ200-1000-Z355L4	200	387	33.3	2	ES580H-07-200G/220P-3	450	540	387	200
ETCZ250-1000-Z355L4	250	481	33.3	2	ES580H-08-250G/280P-3	546	628	481	250

*Description : 1) When the ES580H-06-110G/132P-3 synchronous reluctance driver drives the ETCZ110-1000-Z315L4 motor, the rated current overload is 146.5% every 10 minutes for one minute.

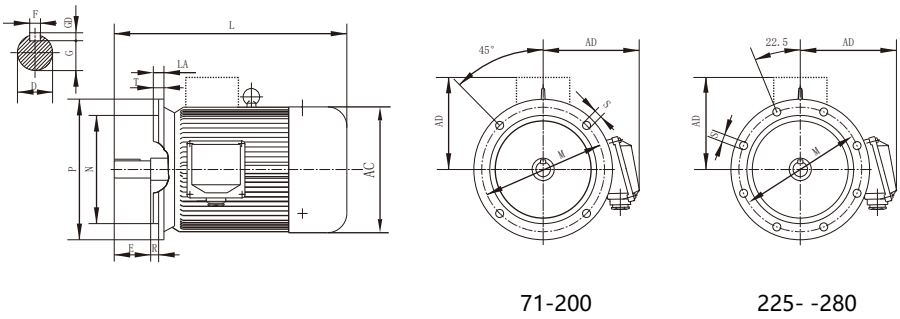
IE4 rated speed 1000rpm reluctance motor + AC Drive combination set (General load application)

Pure reluctance motor model	Rated Power (KW)	Rated Current (A)	Rated Frequency (HZ)	Number of poles pairs	Variable frequency synchronous reluctance drive model	Rated Value		General Load Application	
						In (A)	I _{max} (A)	I _{ld} (A)	P _{ld} (kW)
ETCZ3-1000- Z132S6	3	7.71	50	3	ES580H-01-2K2G/4K0P-3B	10.5	15	9.8	4
ETCZ4-1000-Z132M6	4	9.99	50	3	ES580H-01-4K0G/5K5P-3B	14	20	13.5	5.5
ETCZ5.5-1000-Z132M6	5.5	13.4	50	3	ES580H-01-4K0G/5K5P-3B	14	20	13.5	5.5
ETCZ7.5-1000-Z160M6	7.5	17.5	50	3	ES580H-01-5K5G/7K5P-3B	18.2	25	17.5	7.5
ETCZ11-1000-Z160L6	11	25	50	3	ES580H-02-011G/015P-3B	28	35	25	11
ETCZ15-1000-Z180L6	15	34.5	50	3	ES580H-02A-011G/015P-3B	37	50	35	15
ETCZ18.5-1000-Z200L6	18.5	41.9	50	3	ES580H-03-018G/022P-3B	48	67	46	22
ETCZ22-1000-Z200L6	22	48.7	50	3	ES580H-03-022G/030P-3B	63.5	89	61	30
ETCZ30-1000-Z225M4	30	64.8	33.3	2	ES580H-04-030G/037P-3/B	78	109	75	37
ETCZ37-1000-Z250M4	37	78.5	33.3	2	ES580H-04-037G/045P-3/B	95	133	91	45
ETCZ45-1000-Z280S4	45	94.1	33.3	2	ES580H-04-045G/055P-3/B	120	168	115	55
ETCZ55-1000-Z280M4	55	114	33.3	2	ES580H-04-045G/055P-3/B	120	168	115	55

ETCZ75-1000-Z315S4	75	153	33.3	2	ES580H-05-055G/075P-3/B	162	227	155	75
ETCZ90-1000-Z315M4	90	181	33.3	2	ES580H-05-075G/090P-3/B*	185	222	178	90
ETCZ90-1000-Z315M4	90	181	33.3	2	ES580H-05-090G/110P-3/B	225	270	215	110
ETCZ110-1000-Z315L4	110	220	33.3	2	ES580H-05-090G/110P-3/B*	225	270	215	110
ETCZ110-1000-Z315L4	110	220	33.3	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ132-1000-Z315L4	132	260	33.3	2	ES580H-06-110G/132P-3	272	326	261	132
ETCZ160-1000-Z355M4	160	310	33.3	2	ES580H-06-132G/160P-3	320	384	310	160
ETCZ200-1000-Z355L4	200	387	33.3	2	ES580H-07-160G/200P-3	375	450	387	200
ETCZ250-1000-Z355L4	250	485	33.3	2	ES580H-07-250G/280P-3	546	628	525	280

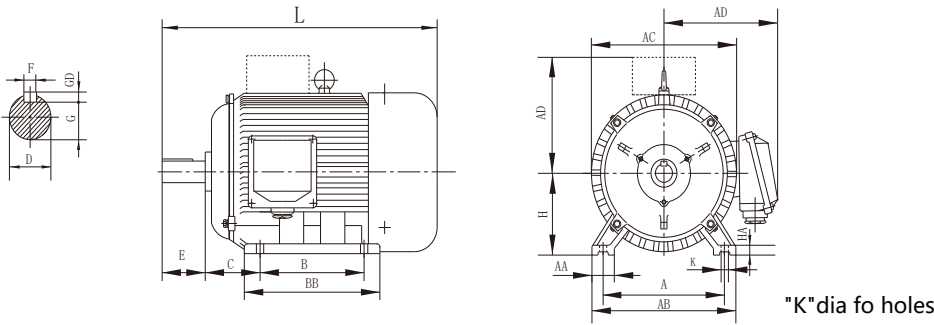
*Description:
1) When the ES580H-05-075G/090P-3/B synchronous reluctance driver drives the ETCZ90-1000-Z315M4 motor, the rated current overload is 118% every 10 minutes for one minute.
2) When the ES580H-05-090G/110P-3/B synchronous reluctance driver drives the ETCZ110-1000-Z315L4 motor, the rated current overload is 117% every 10 minutes for one minute.

DIMENSIONS FOR MOUNTING ARRANGEMENTS B5

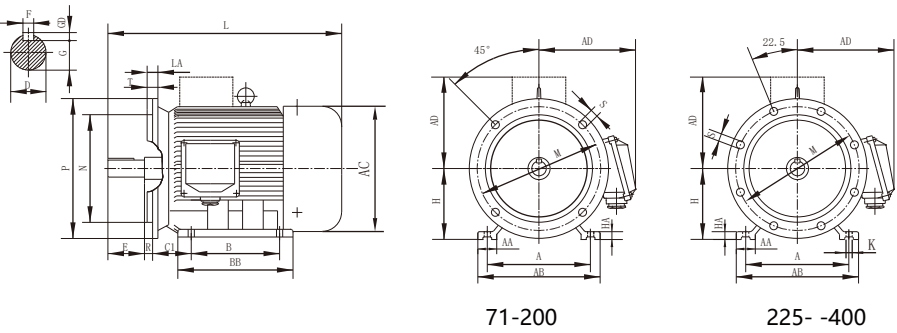


Installation outline drawing

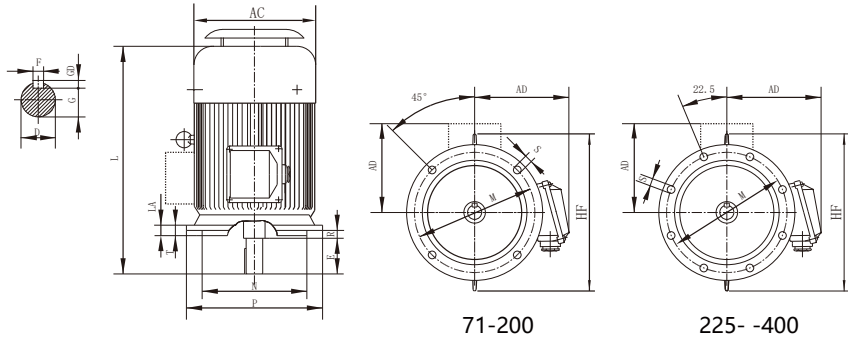
DIMENSIONS FOR MOUNTING ARRANGEMENTS B3



DIMENSIONS FOR MONTING ARRANENTS B35



DIMENS FOR MOUNTING ARRANGEMENTS V1



Mechanical Data

	Universal Dimensions(shaft extension)										B35/B5/V1		B35/B5/V1 Dimensions						
e size	D		E		F		G		GD		N	M	P	S	T	R	LA	HF	
	2P	4.6.8P	2P	4.6.8P	2P	4.6.8P	2P	4.6.8P	2P	4.6.8P									
132S	38k6		80		10		33		8		230j6	265	300	15	4	0	14	----	
132M											250j6	300	350	19	5		15		500
160M	42k6		110		12		37												
160L																			
180M	48k6				14		42.5		9										
180L																			
200L	55m6				16		49		10		300j6	350	400	17	550				
225S	----	60m6	--	140	--	18	--	53	--	11	350j6	400	450	20	610				
225M	55m6		110		16	49	53	10	11	450j6	500	550	22	720					
250M	60m6	65m6	140		18		53	58	11										
280S	65m6	75m6			18	20	58	67.5	11						12				
280M						14													
315S			80m6	140				170		22	71								
315M	24	6			25		860												
315L																			
355M			75m6	95m6		20		25	67.5	86	12	680j6	740	800	30	980			
355L																			
400M	--	110m6	--	210	--	28	--	100	--	16	880j6	940	1000	28	1200				
400L																			

Mechanical Data

	B3/B35					B3/B35 Dimensions					Universal Dimensions							
Frame size	A	AA	AB	B	BB	HA	HD	H	K	C	AC	AD	L (IE2)		L(IE3)			
													2P	4.6.8P	2P	4.6.8P		
132S	216	63	270	140	228	20	345	132	12	89	275	213	508		546			
132M				178	266								546		600			
160M	254	73	320	210	318	20	420	160	15	108	330	260	659		714			
160L				254	362								714		775			
180M	279	73	355	241	349	22	455	180		121	380	280	738		778			
180L				279	387								778		840			
200L	318		395	305	375	25	505	200	19	133	400	305	770		840			
225S	356			83	435	286	375	28		560	225	149	470	335	--	820	--	845
225M						311	400								815	845	880	910
250M	406	88	490	349	450	30	615	250	24	168	510	370	910		1030			
280S	457	93	550	368	490	35	680	280		190	547	400	985		1035			
280M				419	540								1035		1100			
315S	508	120	635	406	575	45	845	315	28	216	645	530	1185	1215	1295	1325		
315M				457	685								1295	1325	1435	1465		
315L				508														
355M	610	120	730	560	750	52	1010	355		254	710	655	1500	1530	1500	1530		
355L				630					1640						1670			
400M	686		806	630	1090	45	1010	400	35	280	856	690	----	1920	----	1920		
400L				710														

	B3/B35					B3/B35 Dimensions					Universal Dimensions							
Frame size	A	AA	AB	B	BB	HA	HD	H	K	C	AC	AD	L (IE2)		L(IE3)			
													2P	4.6.8P	2P	4.6.8P		
132S	216	63	270	140	228	20	345	132	12	89	275	213	508		546			
132M				178	266								546		600			
160M	254	73	320	210	318	20	420	160	15	108	330	260	659		714			
160L				254	362								714		775			
180M	279	73	355	241	349	22	455	180		121	380	280	738		778			
180L				279	387								778		840			
200L	318		395	305	375	25	505	200	19	133	400	305	770		840			
225S	356			83	435	286	375	28		560	225	149	470	335	--	820	--	845
225M						311	400								815	845	880	910
250M	406	88	490	349	450	30	615	250	24	168	510	370	910		1030			
280S	457	93	550	368	490	35	680	280		190	547	400	985		1035			
280M				419	540								1035		1100			
315S	508	120	635	406	575	45	845	315	28	216	645	530	1185	1215	1295	1325		
315M				457	685								1295	1325	1435	1465		
315L				508														
355M	610	120	730	560	750	52	1010	355		254	710	655	1500	1530	1500	1530		
355L				630					1640						1670			
400M	686		806	630	1090	45	1010	400	35	280	856	690	----	1920	----	1920		
400L				710														