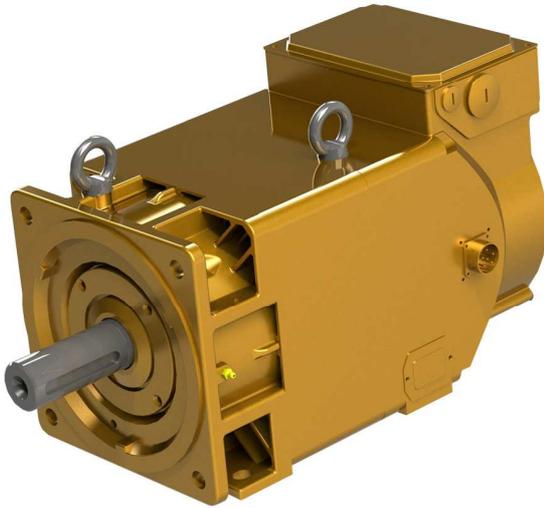


POWERTECH SY4 DRIVE 132K

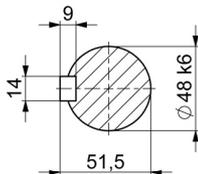
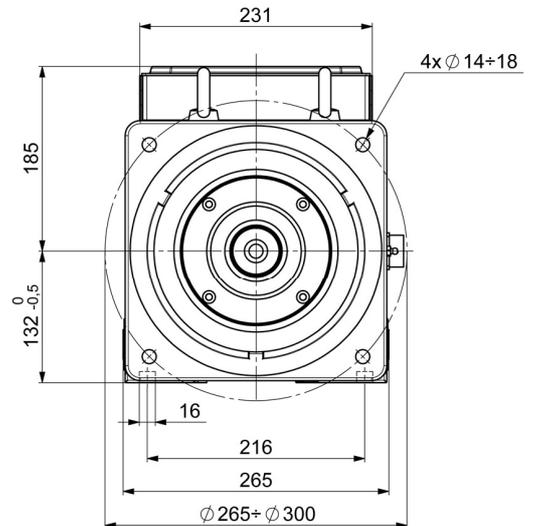
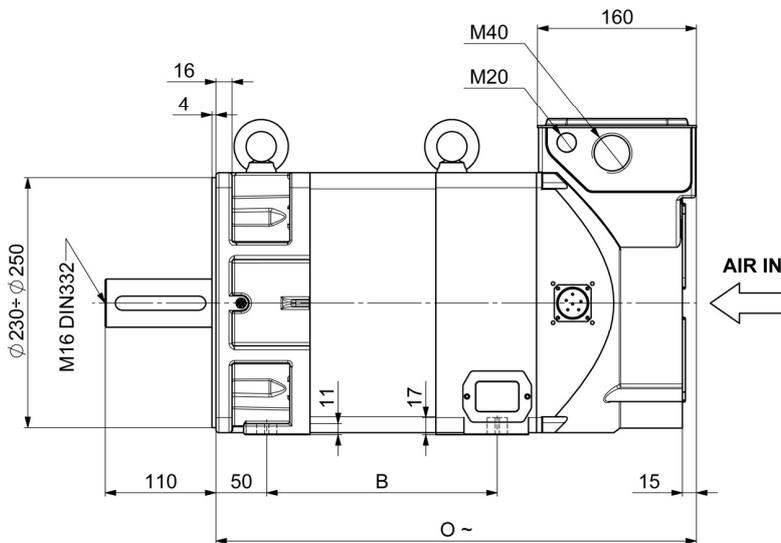
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP54
POLES	2p=4
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC416A
STANDARD FAN DETAILS	3x400Vac 50/60Hz 0,18/0,22A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 300 Nm (on request)
DE BEARING	BALL (ROLLER request)
NDE BEARING	BALL
MAX ABSOLUTE SPEED	2700 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE

SIZE	B	O
132K.17	272	525
132K.21	307	560
132K.28	377	630
132K.35	447	700

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos ϕ	η
800 26,7Hz	132K.17	0,07	450	123	10,3	340	19	0,99	0,91
	132K.21	0,08	530	145	12,2	350	22	0,99	0,91
	132K.28	0,11	700	190	16,0	335	30	0,99	0,92
	132K.35	0,14	900	240	20,0	350	37	0,97	0,92
1500 50Hz	132K.17	0,07	450	120	19,0	355	34	0,99	0,93
	132K.21	0,08	530	140	22,0	335	41	0,99	0,94
	132K.28	0,11	700	185	29,0	335	54	0,98	0,94
	132K.35	0,14	900	235	37,0	350	65	0,99	0,95
2250 75Hz	132K.17	0,07	450	110	26,0	340	48	0,99	0,94
	132K.21	0,08	530	130	30,7	340	56	0,99	0,95
	132K.28	0,11	700	170	40,0	330	75	0,98	0,95
	132K.35	0,14	900	210	49,5	360	84	0,99	0,95

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWERTECH SY4 DRIVE 160L

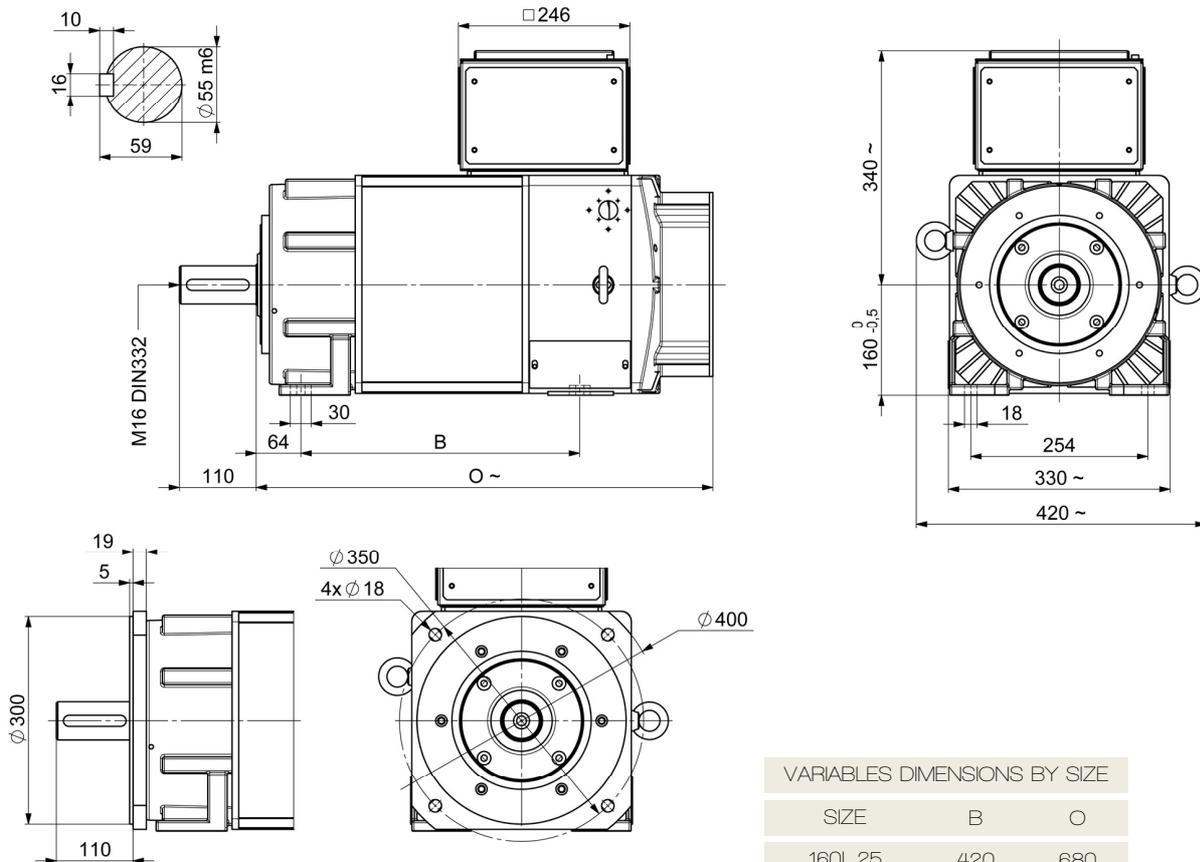
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP54
POLES	2p=4
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC416A
STANDARD FAN DETAILS	3x400Vac 50/60Hz 0,26/0,33A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 400 Nm (on request)
DE BEARING	BALL, ROLLER or INSULATED on request
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2700 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
160L.25	420	680
160L.30	470	730
160L.35	520	780
160L.40	570	830
160L.45	620	880

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos φ	η
800 26,7Hz	160L.25	0,20	550	290	24,3	370	44	0,93	0,93
	160L.30	0,24	700	350	29,3	360	55	0,93	0,93
	160L.35	0,28	830	400	33,6	350	65	0,91	0,93
	160L.40	0,32	950	460	38,5	335	76	0,93	0,94
	160L.45	0,35	1.100	525	44,0	350	83	0,93	0,94
1500 50Hz	160L.25	0,20	550	275	43,2	350	80	0,94	0,95
	160L.30	0,24	700	330	51,8	345	98	0,93	0,95
	160L.35	0,28	830	380	60,0	360	109	0,93	0,95
	160L.40	0,32	950	435	68,3	355	124	0,94	0,96
	160L.45	0,35	1.100	490	77,0	345	145	0,93	0,96
2250 75Hz	160L.25	0,20	550	230	54,2	330	106	0,94	0,95
	160L.30	0,24	700	270	64,0	340	123	0,93	0,96
	160L.35	0,28	830	315	74,2	325	146	0,94	0,96
	160L.40	0,32	950	355	83,6	370	143	0,95	0,96
	160L.45	0,35	1.100	400	94,0	335	178	0,95	0,96

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWERTECH SY6 DRIVE 200L

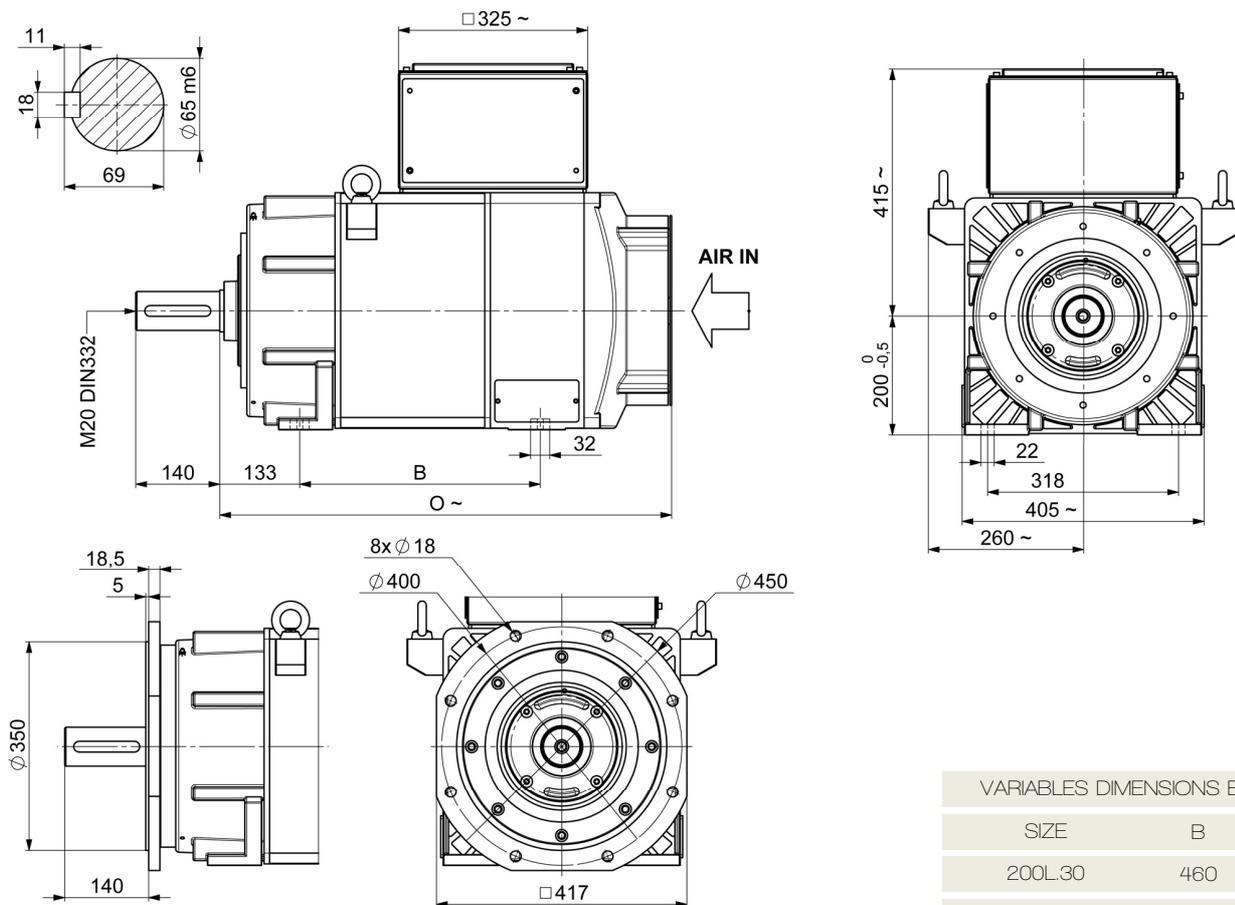
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP54
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC416A
STANDARD FAN DETAILS	3x400Vac 50/60Hz 0,43/0,58A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 600 Nm (on request)
DE BEARING	BALL, ROLLER or INSULATED on request
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2500 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
200L.30	460	820
200L.35	510	870
200L.40	560	920
200L.50	660	1020
200L.55	710	1070

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η
700 35Hz	200L.30	0,68	1.500	545	40	375	68	0,96	0,95
	200L.35	0,81	1.800	630	46	365	80	0,96	0,95
	200L.40	0,93	2.100	700	51	345	95	0,94	0,95
	200L.50	1,15	2.700	845	62	340	115	0,96	0,96
	200L.55	1,27	3.000	915	67	335	125	0,97	0,96
1400 70Hz	200L.30	0,68	1.500	530	78	365	133	0,96	0,96
	200L.35	0,81	1.800	575	84	380	138	0,96	0,96
	200L.40	0,93	2.100	680	100	340	185	0,95	0,96
	200L.50	1,15	2.700	805	118	360	202	0,97	0,97
	200L.55	1,58	3.000	850	125	330	235	0,96	0,97
2000 100Hz	200L.30	0,68	1.500	500	105	360	180	0,97	0,96
	200L.35	0,81	1.800	575	120	360	208	0,96	0,97
	200L.40	0,93	2.100	645	135	340	245	0,97	0,97
	200L.50	1,15	2.700	750	157	340	284	0,97	0,97
	200L.55	1,58	3.000	800	167	370	275	0,98	0,97

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

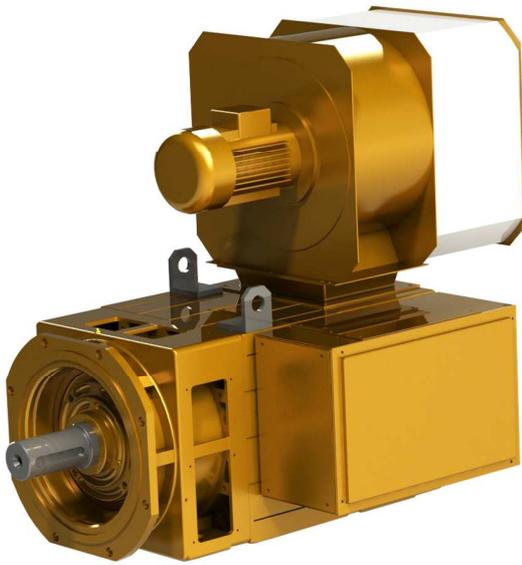
Other windings on request

POWERTECH SY6 DRIVE 250K

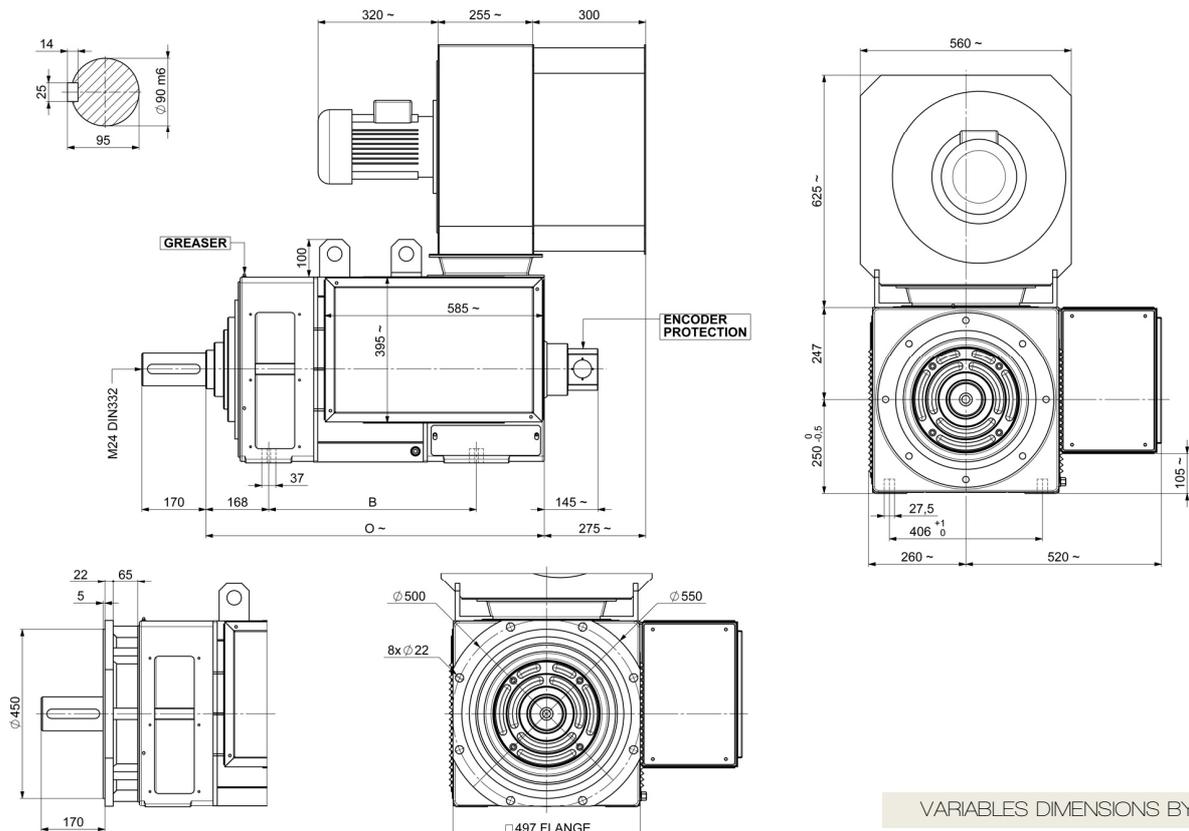
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP54
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC416R (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 11,5/6,6A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2400 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2300 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
250K.30	571	920
250K.40	671	1020
250K.50	771	1120
250K.60	871	1220
250K.70	971	1320

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos φ	η
700 35Hz	250K.30	1,9	2.900	1.150	84	375	145	0,93	0,96
	250K.40	2,5	3.800	1.500	110	360	195	0,94	0,96
	250K.50	3,1	4.800	1.800	132	335	245	0,96	0,96
	250K.60	3,8	5.700	2.130	156	365	265	0,96	0,97
	250K.70	4,4	6.700	2.460	180	355	320	0,95	0,97
1400 70Hz	250K.30	1,9	2.900	1.070	157	370	270	0,94	0,97
	250K.40	2,5	3.800	1.400	205	355	360	0,96	0,97
	250K.50	3,1	4.800	1.710	250	355	435	0,96	0,97
	250K.60	3,8	5.700	2.010	295	360	505	0,97	0,97
	250K.70	4,4	6.700	2.350	345	385	555	0,96	0,97
2000 100Hz	250K.30	1,9	2.900	1.000	210	375	350	0,96	0,96
	250K.40	2,5	3.800	1.300	272	380	450	0,95	0,97
	250K.50	3,1	4.800	1.620	340	350	600	0,97	0,97
	250K.60	3,8	5.700	1.920	402	375	665	0,96	0,97
	250K.70	4,4	6.700	2.200	460	385	745	0,96	0,97

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Also available in Axial Fan Version (IC416A)

POWER DERATING -10%

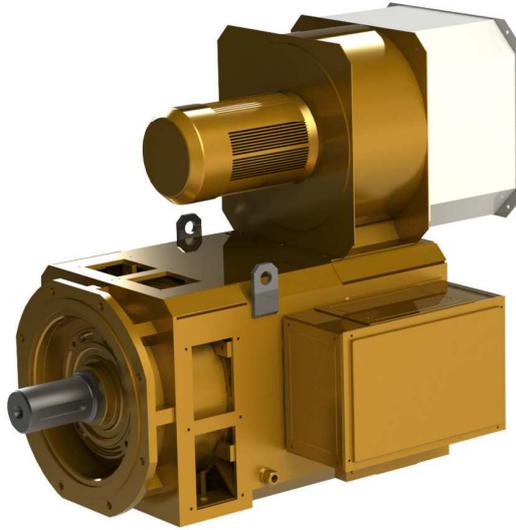
Other windings on request

POWERTECH SY6 DRIVE 315L

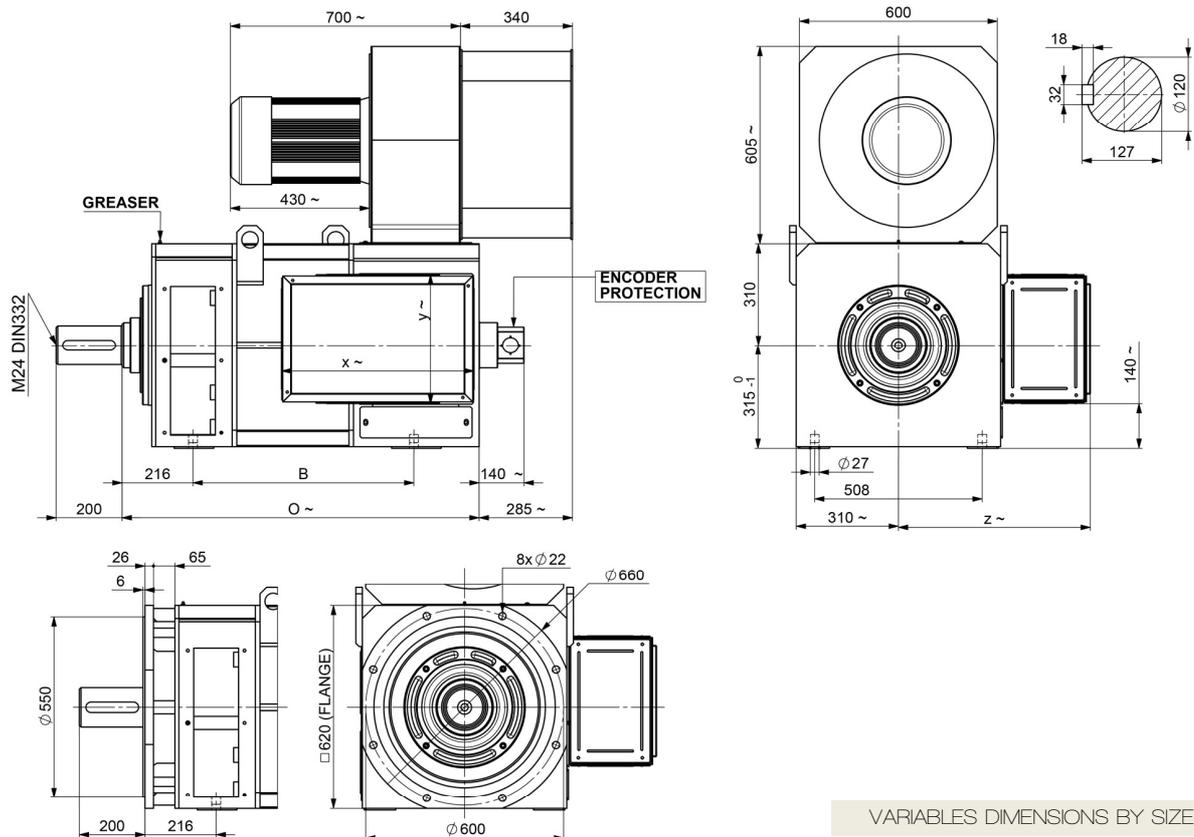
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP54
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC416R (with filter on request)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 19,6/11,3A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2500 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (INSULATED)
MAX ABSOLUTE SPEED	1800 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



TERMINAL BOX DIMENSIONS			
TYPE	x	x	z
STANDARD	585	400	585
INCREASED (on request)	645	534	585

VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
315L.40	730	1150
315L.50	830	1250
315L.60	930	1350
315L.70	1030	1450
315L.80	1130	1550

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos ϕ	η
500 25Hz	315L.40	6,6	6.200	2.680	140	370	250	0,91	0,96
	315L.50	8,2	7.600	3.300	173	360	315	0,92	0,96
	315L.60	9,9	9.500	3.960	207	365	365	0,93	0,96
	315L.70	11,5	11.000	4.620	242	360	435	0,92	0,97
	315L.80	13,2	12.500	5.250	275	365	480	0,94	0,97
1000 50Hz	315L.40	6,6	6.200	2.530	265	370	470	0,91	0,97
	315L.50	8,2	7.600	3.150	330	380	560	0,92	0,97
	315L.60	9,9	9.500	3.820	400	365	705	0,92	0,97
	315L.70	11,5	11.000	4.400	460	350	835	0,93	0,97
	315L.80	13,2	12.500	5.000	525	360	925	0,93	0,98
1500 75Hz	315L.40	6,6	6.200	2.450	385	365	680	0,92	0,97
	315L.50	8,2	7.600	3.050	480	370	815	0,94	0,97
	315L.60	9,9	9.500	3.600	565	360	1.000	0,93	0,97
	315L.70	11,5	11.000	4.200	660	360	1.140	0,95	0,97
	315L.80	13,2	12.500	4.800	750	350	1.330	0,96	0,97

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Also available in Axial Fan Version (IC416A)

POWER DERATING -10%

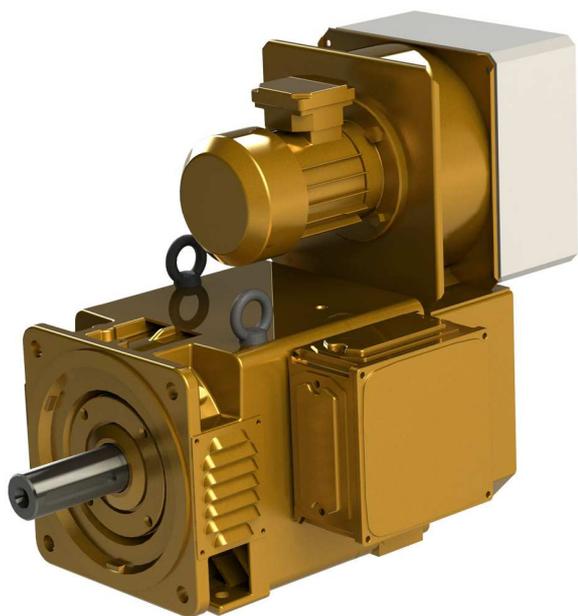
Other windings on request

POWERTECH SY4 TETRAVEC 132K

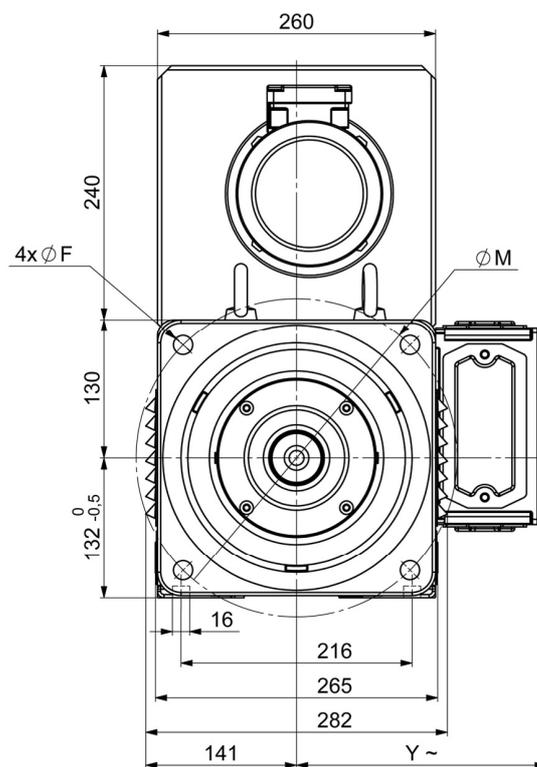
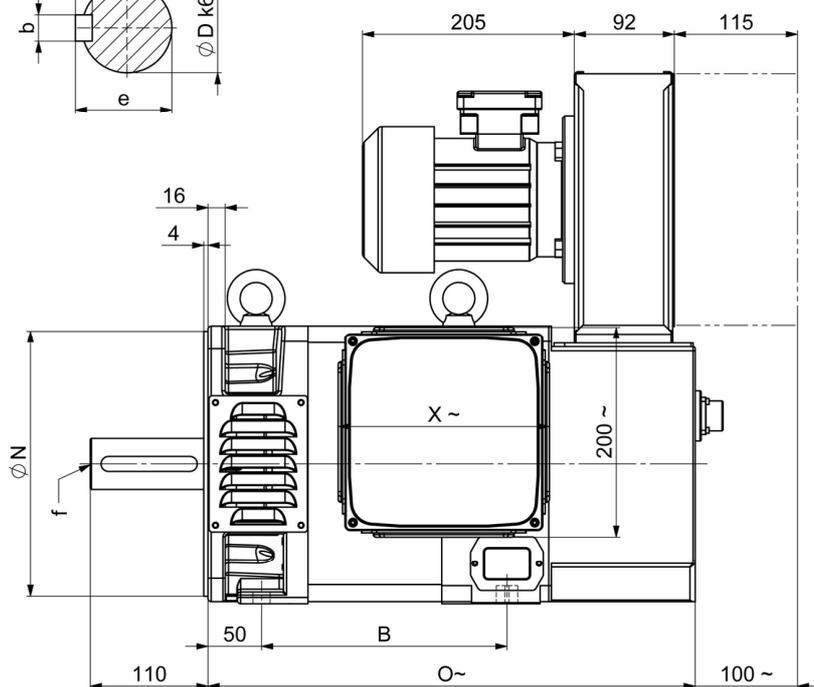
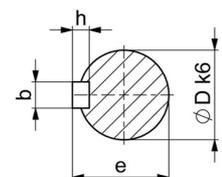
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP23
POLES	2p=4
THERMAL PROTECTION TYPE	PT100 (and other 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)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 1,9/1,1A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 300 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL
MAX ABSOLUTE SPEED	2700 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE

SIZE	B	O
132K.17	272	505
132K.21	307	540
132K.28	377	610
132K.35	447	680

FLANGE

M	N	F
265	230	14
300	250	18

SHAFT AND KEYWAY

D	b x h	e	f
48	14x9	51,5	M16

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos ϕ	η
800 26,7Hz	132K.17	0,07	450	180	15,0	370	28	0,97	0,87
	132K.21	0,08	530	215	18,0	365	33	0,98	0,87
	132K.28	0,11	700	300	25,0	360	45	0,99	0,89
	132K.35	0,14	900	360	30,0	360	55	0,98	0,90
1500 50Hz	132K.17	0,07	450	180	28,3	370	50	0,97	0,92
	132K.21	0,08	530	215	33,8	350	62	0,97	0,92
	132K.28	0,11	700	285	44,8	345	82	0,98	0,93
	132K.35	0,14	900	350	55,0	360	97	0,98	0,94
2250 75Hz	132K.17	0,07	450	175	41,3	350	75	0,98	0,93
	132K.21	0,08	530	205	48,3	350	87	0,98	0,94
	132K.28	0,11	700	275	65,0	340	120	0,98	0,94
	132K.35	0,14	900	335	79,0	375	133	0,97	0,95

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

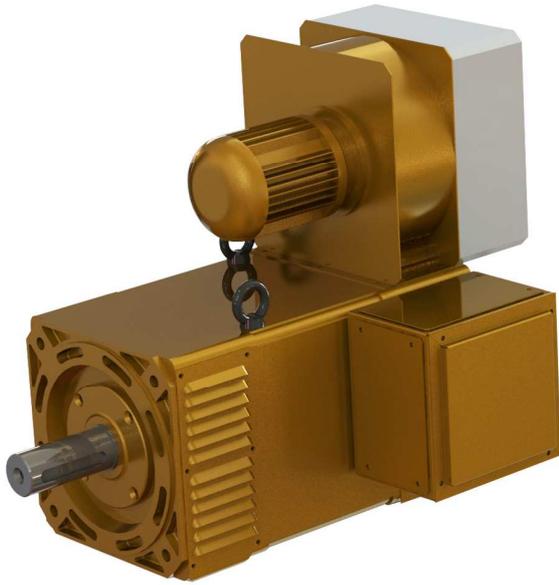
Other windings on request

POWERTECH SY4 TETRAVEC 160L

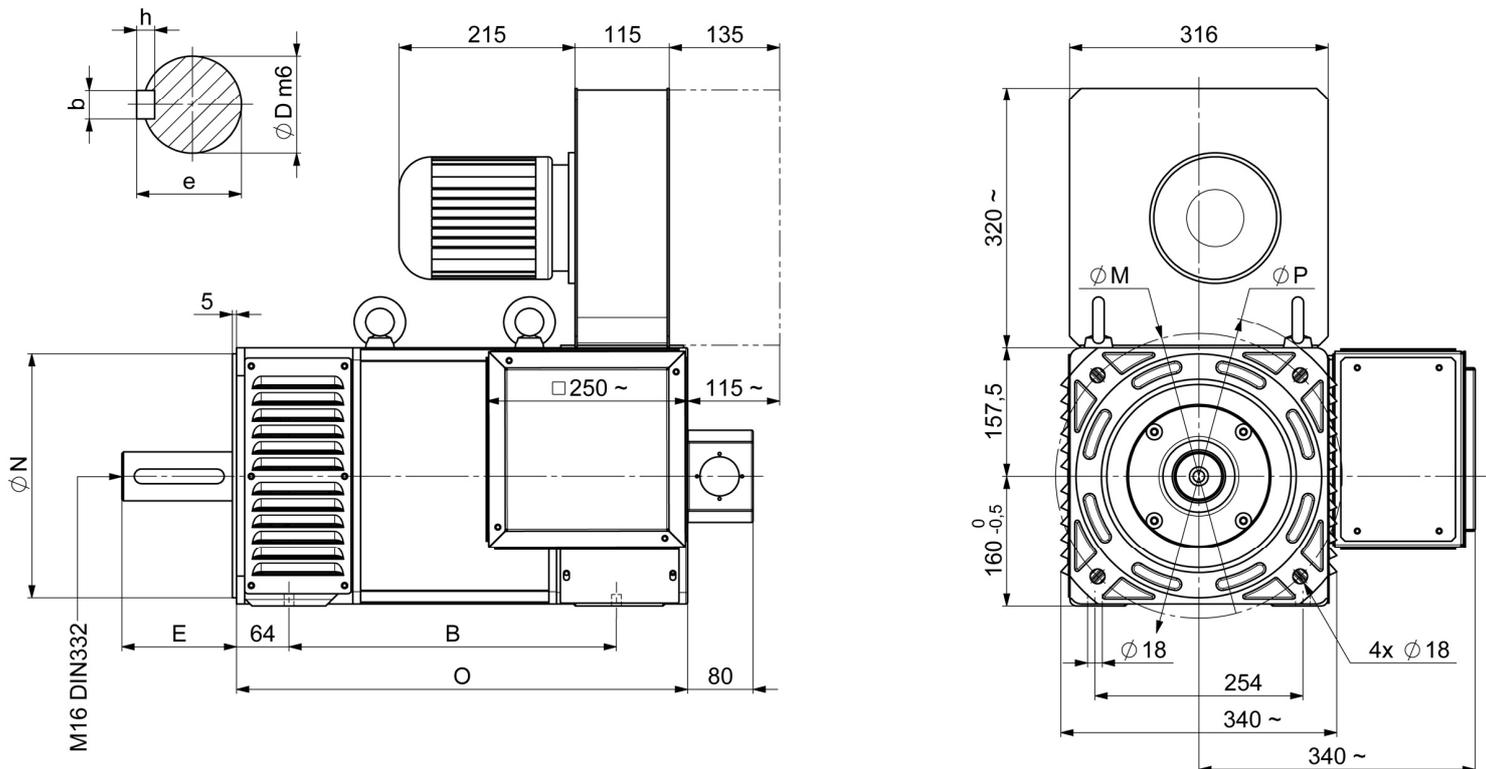
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP23
POLES	2p=4
THERMAL PROTECTION TYPE	PT100 (and other 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)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 4,5/2,6A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 400 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2700 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE

SIZE	B	O
160L.25	420	571
160L.30	470	621
160L.35	520	671
160L.40	570	721
160L.45	620	771

FLANGE

P	M	N
400	300	250
400	350	300

SHAFT AND KEYWAY

DxE	bxh	e
60x140	18x11	64

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η
800 26,7Hz	160L.25	0,20	550	425	35,6	385	68	0,87	0,90
	160L.30	0,24	700	500	42,0	385	78	0,89	0,91
	160L.35	0,28	830	560	46,0	365	90	0,88	0,92
	160L.40	0,32	950	625	52,4	355	104	0,89	0,92
	160L.45	0,35	1.100	680	57,0	370	109	0,88	0,93
1500 50Hz	160L.25	0,20	550	420	66,0	380	122	0,88	0,94
	160L.30	0,24	700	490	77,0	370	145	0,88	0,95
	160L.35	0,28	830	550	86,3	380	156	0,89	0,95
	160L.40	0,32	950	610	96,0	375	174	0,90	0,95
	160L.45	0,35	1.100	660	104	365	195	0,89	0,95
2250 75Hz	160L.25	0,20	550	400	94,2	350	184	0,89	0,95
	160L.30	0,24	700	460	108	360	205	0,89	0,95
	160L.35	0,28	830	515	121	350	235	0,89	0,96
	160L.40	0,32	950	570	135	390	229	0,91	0,96
	160L.45	0,35	1.100	625	147	355	276	0,91	0,96

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWERTECH SY6 TETRAVEC 200L

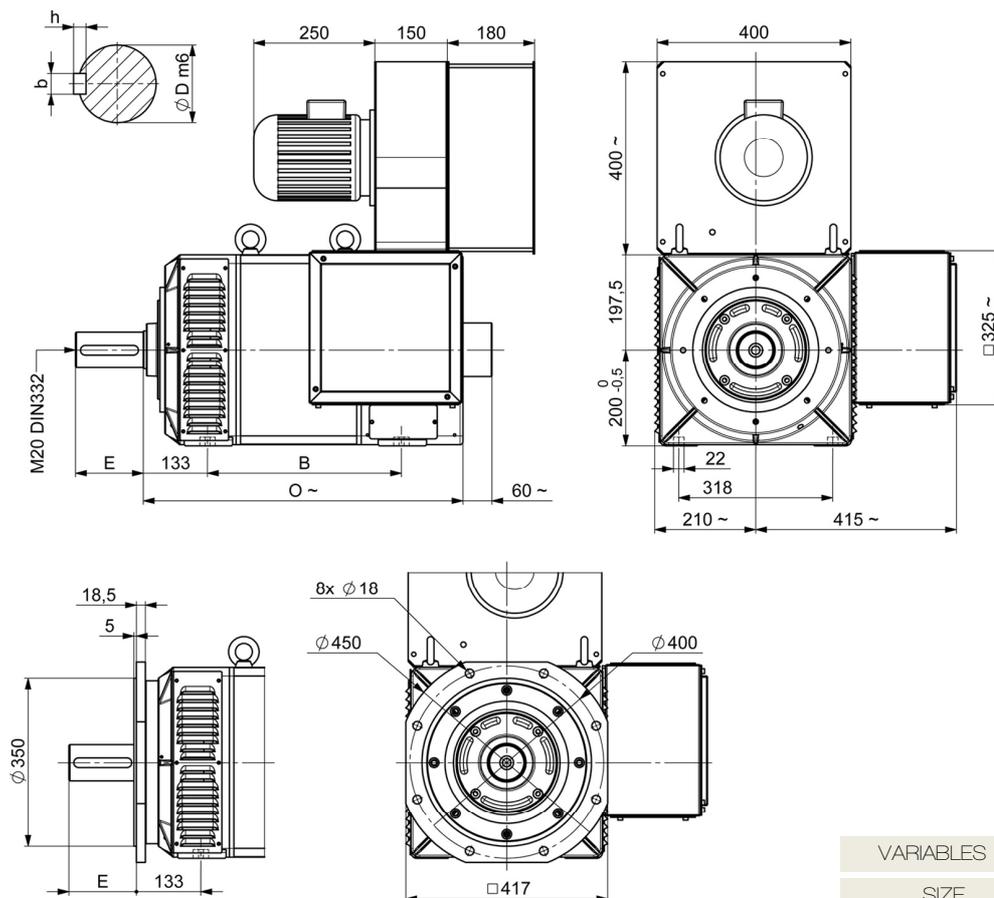
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP23
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other 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)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 5,7/3,3A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 600 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2500 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



SHAFT AND KEYWAY

DxE	b x h
75x140	20x12

unit [mm]

VARIABLES DIMENSIONS BY SIZE

SIZE	B	O
200L.30	460	720
200L.35	510	770
200L.40	560	820
200L.50	660	920
200L.55	710	970

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos φ	η
700 35Hz	200L.30	0,68	1.500	930	68	360	130	0,91	0,92
	200L.35	0,81	1.800	1.080	79	375	145	0,91	0,93
	200L.40	0,93	2.100	1.200	88	375	161	0,91	0,93
	200L.50	1,15	2.700	1.470	108	360	200	0,93	0,94
	200L.55	1,27	3.000	1.580	116	360	215	0,92	0,94
1400 70Hz	200L.30	0,68	1.500	900	132	385	225	0,92	0,95
	200L.35	0,81	1.800	1.050	154	365	282	0,91	0,95
	200L.40	0,93	2.100	1.180	173	360	318	0,91	0,96
	200L.50	1,15	2.700	1.440	211	385	360	0,92	0,96
	200L.55	1,58	3.000	1.570	230	350	430	0,92	0,96
2000 100Hz	200L.30	0,68	1.500	860	180	380	308	0,92	0,96
	200L.35	0,81	1.800	1.000	210	385	357	0,92	0,96
	200L.40	0,93	2.100	1.140	238	365	427	0,91	0,96
	200L.50	1,15	2.700	1.390	291	360	522	0,93	0,97
	200L.55	1,58	3.000	1.500	315	390	515	0,94	0,97

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

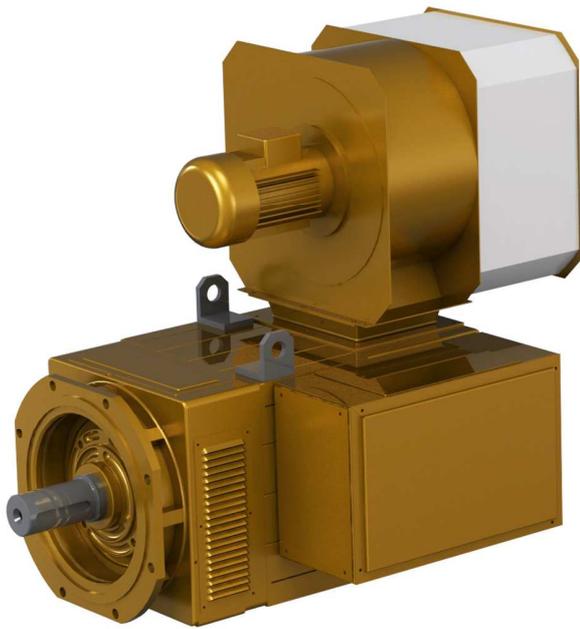
Other windings on request

POWERTECH SY6 TETRAVEC 250K

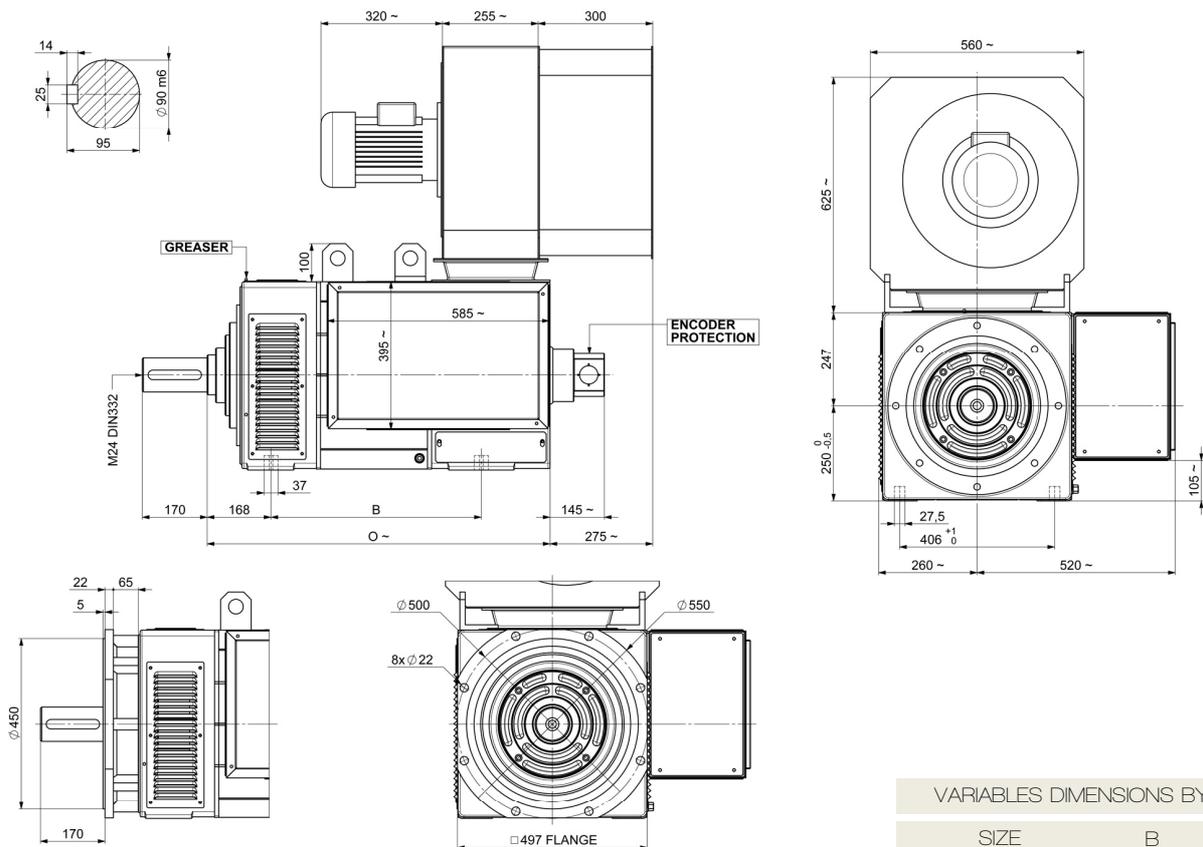
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.0



IP PROTECTION	IP23
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other 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)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 11,5/6,6A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2400 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2300 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
250K.30	571	920
250K.40	671	1020
250K.50	771	1120
250K.60	871	1220
250K.70	971	1320

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η
700 35Hz	250K.30	1,9	2.900	1.680	123	395	210	0,91	0,94
	250K.40	2,5	3.800	2.200	161	375	285	0,92	0,95
	250K.50	3,1	4.800	2.730	200	355	375	0,91	0,95
	250K.60	3,8	5.700	3.200	235	385	400	0,92	0,96
	250K.70	4,4	6.700	3.700	271	370	480	0,92	0,96
1400 70Hz	250K.30	1,9	2.900	1.670	245	385	420	0,91	0,96
	250K.40	2,5	3.800	2.180	320	370	565	0,92	0,97
	250K.50	3,1	4.800	2.660	390	375	675	0,92	0,97
	250K.60	3,8	5.700	3.100	455	380	775	0,92	0,97
	250K.70	4,4	6.700	3.550	520	395	840	0,93	0,97
2000 100Hz	250K.30	1,9	2.900	1.600	335	390	555	0,92	0,97
	250K.40	2,5	3.800	2.150	450	390	745	0,92	0,97
	250K.50	3,1	4.800	2.580	540	365	950	0,93	0,97
	250K.60	3,8	5.700	3.000	628	390	1.035	0,93	0,97
	250K.70	4,4	6.700	3.400	712	395	1.150	0,93	0,97

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

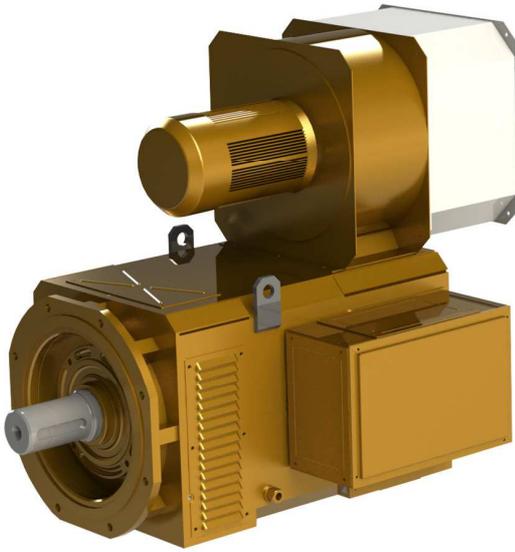
Other windings on request

POWERTECH SY6 TETRAVEC 315L

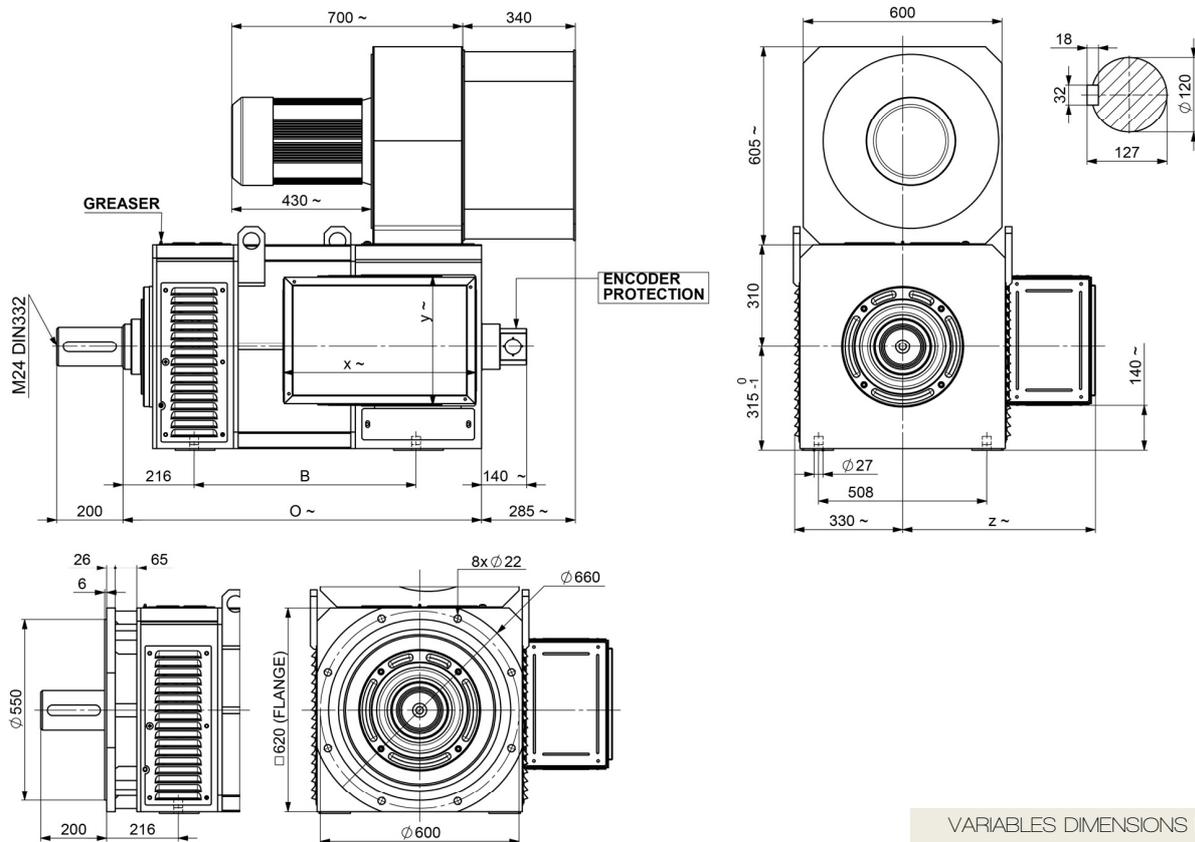
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP23
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other 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)
STANDARD FAN DETAILS	3x230/400Vac 50Hz 19,6/11,3A
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2500 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (INSULATED)
MAX ABSOLUTE SPEED	1800 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



TERMINAL BOX DIMENSIONS			
MOTOR CURRENT	x	x	z
TILL 1500 A	585	400	585
OVER 1500 A	645	534	585

VARIABLES DIMENSIONS BY SIZE		
SIZE	B	O
315L.40	730	1150
315L.50	830	1250
315L.60	930	1350
315L.70	1030	1450
315L.80	1130	1550

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η
500 25Hz	315L.40	6,6	6.200	4.050	212	380	385	0,89	0,95
	315L.50	8,2	7.600	5.060	265	370	495	0,88	0,95
	315L.60	9,9	9.500	6.000	315	375	570	0,89	0,95
	315L.70	11,5	11.000	6.880	360	365	665	0,90	0,96
	315L.80	13,2	12.500	7.830	410	380	730	0,89	0,96
1000 50Hz	315L.40	6,6	6.200	3.920	410	375	740	0,88	0,97
	315L.50	8,2	7.600	4.840	507	385	880	0,89	0,97
	315L.60	9,9	9.500	5.780	605	370	1.090	0,89	0,97
	315L.70	11,5	11.000	6.700	702	365	1.285	0,89	0,97
	315L.80	13,2	12.500	7.650	800	370	1.435	0,90	0,97
1500 75Hz	315L.40	6,6	6.200	3.820	600	370	1.085	0,89	0,97
	315L.50	8,2	7.600	4.840	760	380	1.330	0,89	0,97
	315L.60	9,9	9.500	5.730	900	365	1.630	0,90	0,97
	315L.70	11,5	11.000	6.580	1.030	365	1.850	0,90	0,97
	315L.80	13,2	12.500	7.500	1.180	365	2.125	0,90	0,98

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency	Liquid flow rate
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cos φ	η	L/1'
800 26,7Hz	132.17	0,07	450	175	14,6	335	30	0,96	0,87	9,5
	132.21	0,08	530	205	17,2	365	32	0,97	0,88	10
	132.28	0,11	700	280	23,5	360	42	0,99	0,90	11
	132.35	0,14	900	340	28,5	360	52	0,98	0,90	12
1500 50Hz	132.17	0,07	450	165	26,0	365	46	0,98	0,92	9,5
	132.21	0,08	530	195	30,7	345	57	0,97	0,93	10
	132.28	0,11	700	265	41,7	345	77	0,98	0,93	11
	132.35	0,14	900	330	52,0	360	91	0,98	0,94	12
2250 75Hz	132.17	0,07	450	160	37,8	350	68	0,98	0,94	9,5
	132.21	0,08	530	190	45,0	345	81	0,99	0,94	10
	132.28	0,11	700	260	61,1	340	113	0,98	0,95	11
	132.35	0,14	900	325	76,5	370	128	0,98	0,95	12

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWER DERATING BY INLET LIQUID TEMPERATURE

30°C (86°F) -3,5%

35°C (95°F) -6%

40°C (104°F) -10%

45°C (113°F) -12%

POWERTECH SY4 FLUID 160

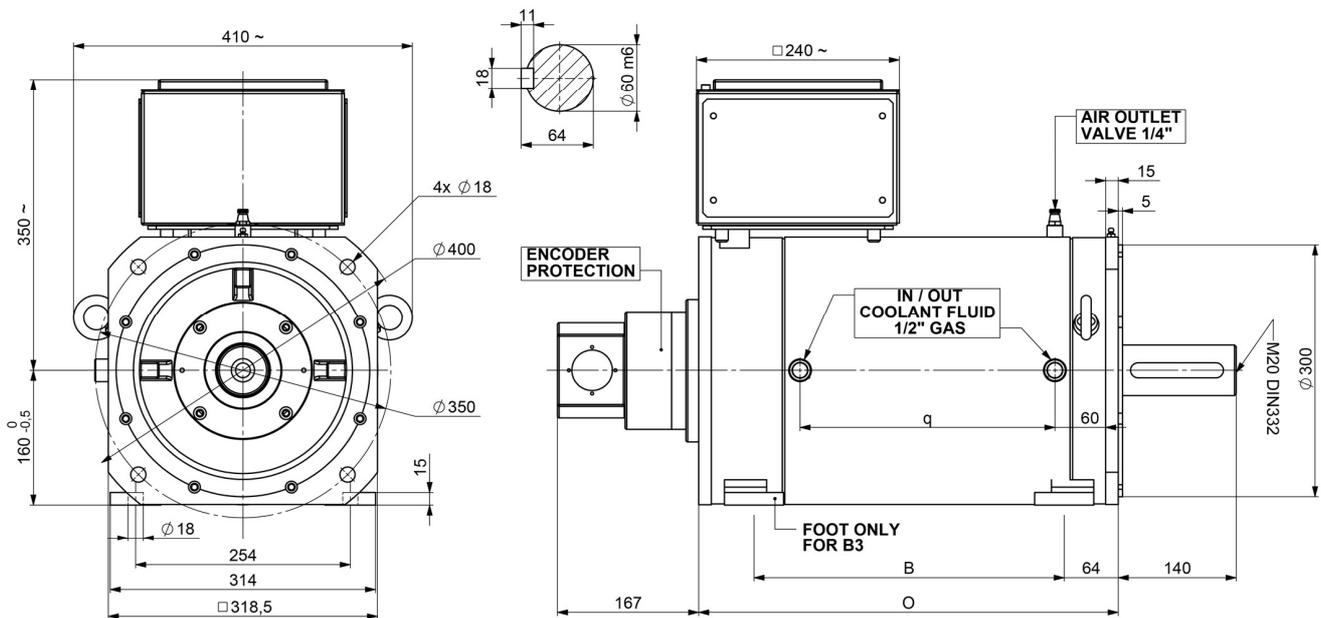
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP54 (IP55 on request)
POLES	2p=4
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	LIQUID (flow rate by size) 10 + 25°C (50 + 77 °F) + GLYCOL 20%
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 400 Nm (on request)
DE BEARING	BALL (ROLLER request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2700 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE

SIZE	B	O	q
160.25	387	520	321,5
160.30	437	570	371,5
160.35	487	620	421,5
160.40	537	670	471,5
160.45	587	720	521,5

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency	Liquid flow rate
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η	L/1'
800 26,7Hz	160.25	0,20	550	360	30,1	370	57	0,90	0,91	15
	160.30	0,24	700	430	36,0	370	68	0,91	0,92	16
	160.35	0,28	830	475	40,0	350	77	0,92	0,93	17
	160.40	0,32	950	530	44,4	345	88	0,91	0,93	18
	160.45	0,35	1.100	580	48,6	355	94	0,90	0,93	19
1500 50Hz	160.25	0,20	550	340	53,2	365	100	0,89	0,94	16
	160.30	0,24	700	395	62,0	355	117	0,91	0,95	17
	160.35	0,28	830	460	72,3	365	131	0,92	0,95	18
	160.40	0,32	950	510	80,1	370	145	0,90	0,95	19
	160.45	0,35	1.100	565	89,0	355	167	0,91	0,96	19
2250 75Hz	160.25	0,20	550	330	78,0	340	152	0,91	0,95	15
	160.30	0,24	700	390	92,0	350	174	0,91	0,96	16
	160.35	0,28	830	450	106	340	208	0,90	0,96	17
	160.40	0,32	950	400	118	385	200	0,91	0,96	18
	160.45	0,35	1.100	550	130	355	243	0,91	0,96	19

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWER DERATING BY INLET LIQUID TEMPERATURE

30°C (86°F) -3,5%

35°C (95°F) -6%

40°C (104°F) -10%

45°C (113°F) -12%

POWERTECH SY6 FLUID 200

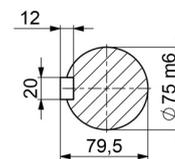
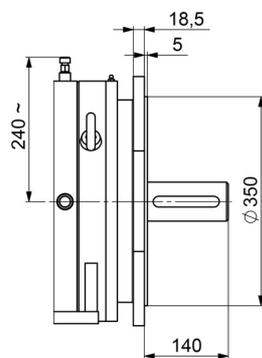
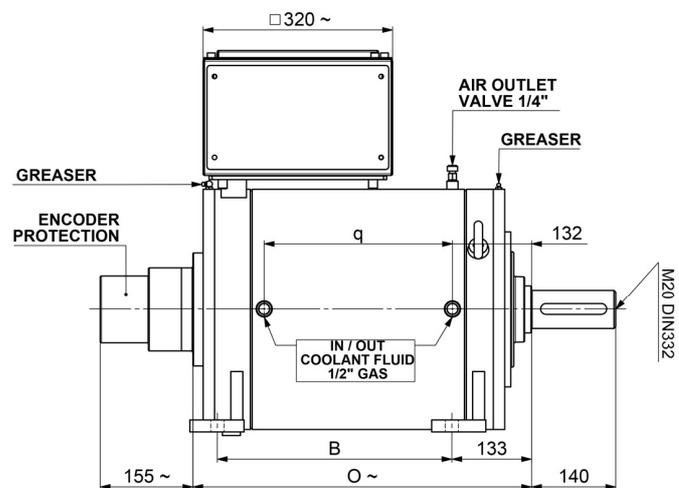
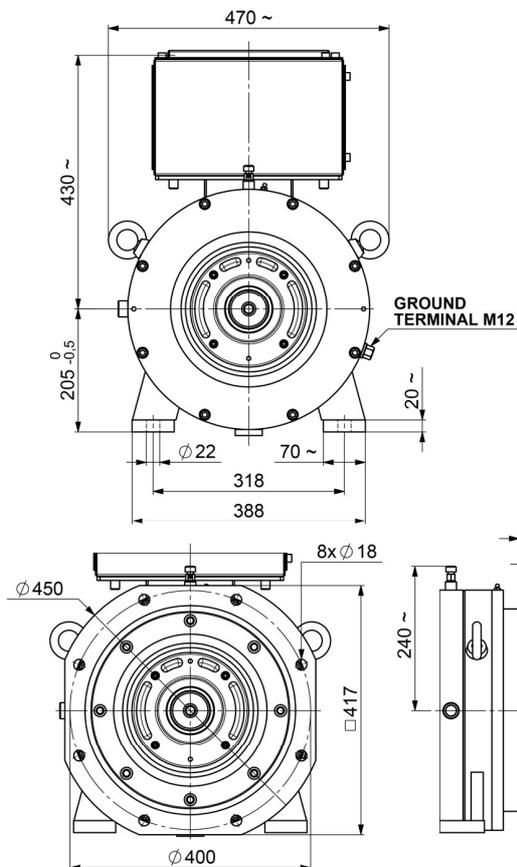
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP54 (IP55 on request)
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	LIQUID (flow rate by size) 10 + 25°C (50 + 77 °F) + GLYCOL 20%
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 600 Nm (on request)
DE BEARING	BALL (ROLLER on request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2500 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE

SIZE	B	O	q
200.30	450	625	373
200.35	500	675	423
200.40	550	725	473
200.50	650	825	573
200.55	700	875	623

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency	Liquid flow rate
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η	L/1'
700 35Hz	200.30	0,68	1.500	750	55	390	93	0,94	0,93	18
	200.35	0,81	1.800	875	64	385	112	0,92	0,94	19
	200.40	0,93	2.100	990	72	360	133	0,92	0,94	20
	200.50	1,15	2.700	1.200	88	350	164	0,94	0,94	22
	200.55	1,27	3.000	1.310	96	345	178	0,95	0,95	22
1400 70Hz	200.30	0,68	1.500	700	103	375	176	0,94	0,96	18
	200.35	0,81	1.800	810	118	350	218	0,93	0,96	19
	200.40	0,93	2.100	920	135	350	248	0,93	0,96	20
	200.50	1,15	2.700	1.160	170	375	290	0,94	0,96	22
	200.55	1,58	3.000	1.270	186	345	345	0,94	0,96	23
2000 100Hz	200.30	0,68	1.500	650	136	370	234	0,94	0,96	18
	200.35	0,81	1.800	755	158	370	272	0,94	0,97	19
	200.40	0,93	2.100	860	180	350	325	0,95	0,97	20
	200.50	1,15	2.700	1.080	226	350	406	0,95	0,97	22
	200.55	1,58	3.000	1.190	250	385	405	0,96	0,97	23

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWER DERATING BY INLET LIQUID TEMPERATURE

30°C (86°F) -3,5%

35°C (95°F) -6%

40°C (104°F) -10%

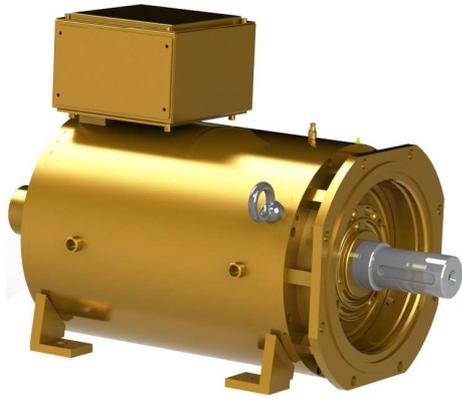
45°C (113°F) -12%

POWERTECH SY6 FLUID 250

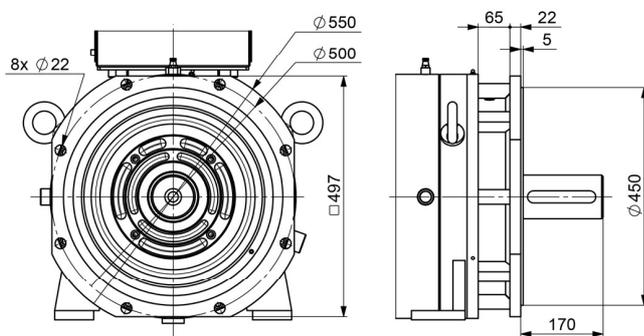
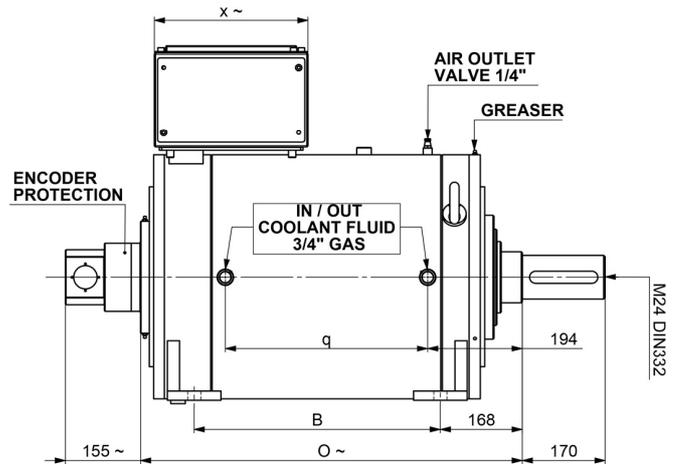
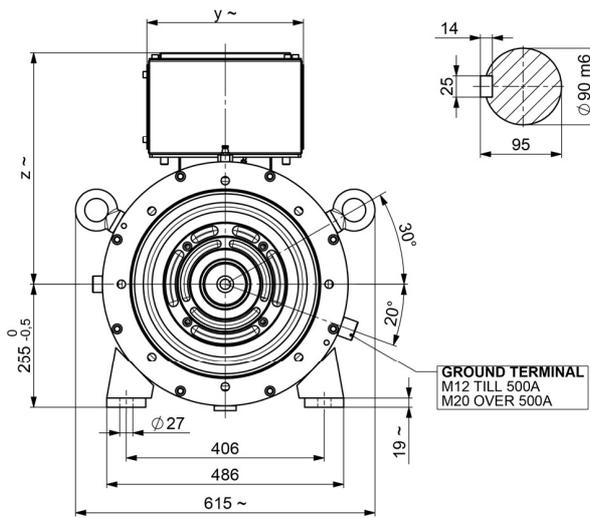
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP54 (IP55 on request)
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	LIQUID (flow rate by size) 10 + 25°C (50 + 77 °F) + GLYCOL 20%
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2400 Nm (on request)
DE BEARING	BALL (ROLLER request)
NDE BEARING	BALL (insulated on request)
MAX ABSOLUTE SPEED	2300 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



TERMINAL BOX DIMENSIONS			
MOTOR CURRENT	x	x	z
TILL 500 A	315	320	480
OVER 500 A	585	395	535

unit [mm]

VARIABLES DIMENSIONS BY SIZE			
SIZE	B	O	q
250.30	525	805	435
250.40	625	905	535
250.50	725	1005	635
250.60	825	1105	735
250.70	925	1205	835

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency	Liquid flow rate
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η	L/1'
700 35Hz	250.30	1,9	2.900	1.500	110	385	190	0,91	0,95	26
	250.40	2,5	3.800	2.000	147	370	260	0,93	0,95	28
	250.50	3,1	4.800	2.480	182	345	340	0,94	0,96	30
	250.60	3,8	5.700	2.950	216	380	370	0,92	0,96	32
	250.70	4,4	6.700	3.410	250	360	445	0,94	0,96	34
1400 70Hz	250.30	1,9	2.900	1.450	212	380	365	0,92	0,96	26
	250.40	2,5	3.800	1.910	280	365	495	0,93	0,97	28
	250.50	3,1	4.800	2.390	350	370	610	0,92	0,97	30
	250.60	3,8	5.700	2.850	418	375	715	0,93	0,97	32
	250.70	4,4	6.700	3.300	484	395	780	0,94	0,97	34
2000 100Hz	250.30	1,9	2.900	1.350	282	380	470	0,94	0,97	26
	250.40	2,5	3.800	1.800	377	385	625	0,93	0,97	28
	250.50	3,1	4.800	2.240	470	360	830	0,94	0,97	30
	250.60	3,8	5.700	2.650	555	385	915	0,94	0,97	32
	250.70	4,4	6.700	3.100	650	385	1.050	0,96	0,97	34

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWER DERATING BY INLET LIQUID TEMPERATURE

30°C (86°F) -3,5%

35°C (95°F) -6%

40°C (104°F) -10%

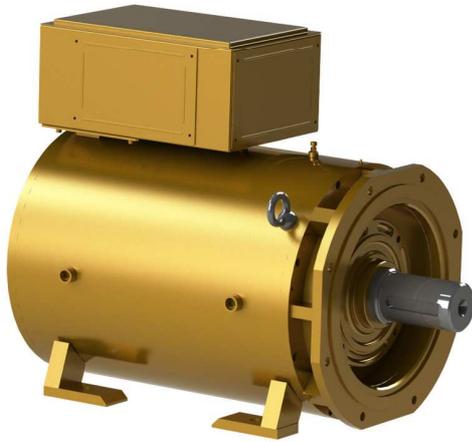
45°C (113°F) -12%

POWERTECH SY6 FLUID 315

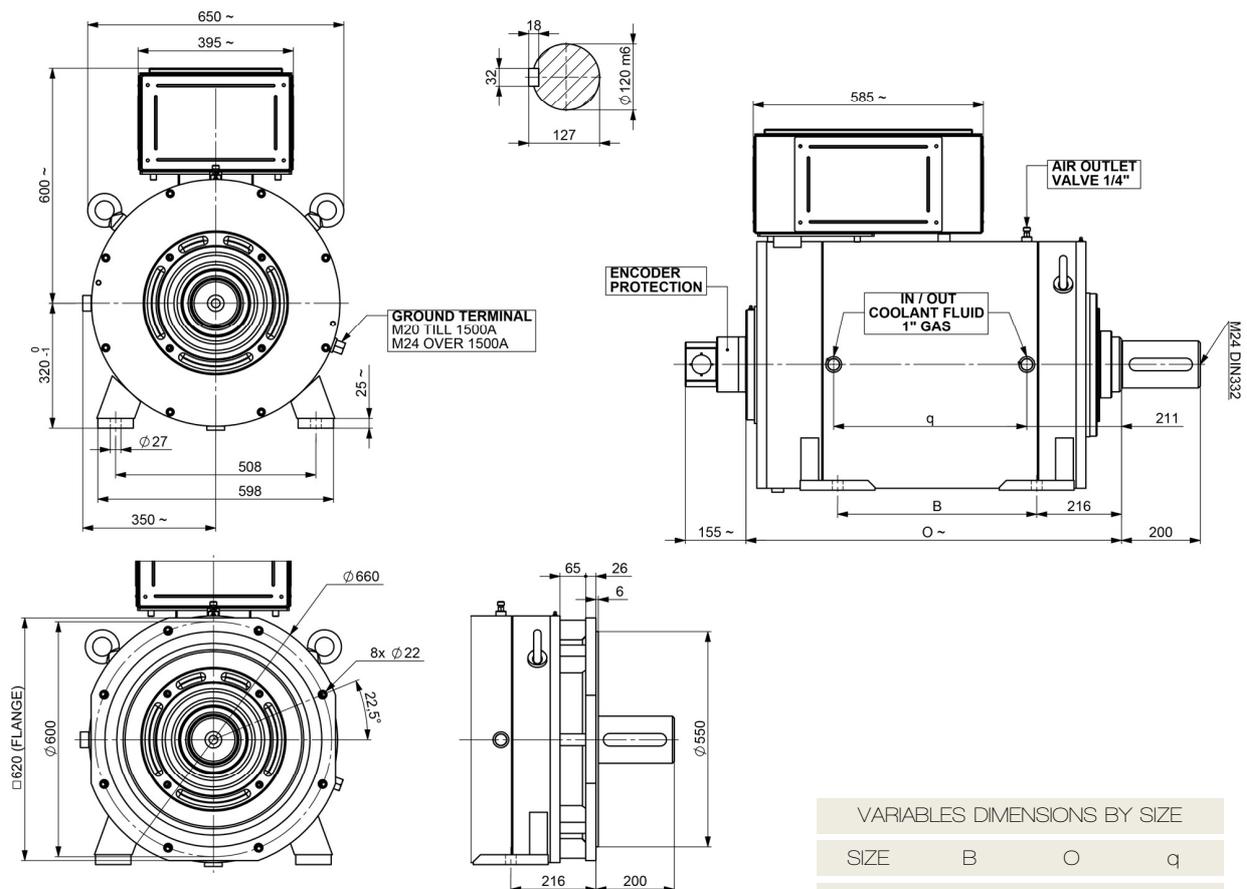
GENERAL SPEED IE4 SYNCHRONOUS MOTORS

OVERVIEW

Rev. 1.1



IP PROTECTION	IP54 (IP55 on request)
POLES	2p=6
THERMAL PROTECTION TYPE	PT100 (and other on request)
BALANCING, VIBRATION GRADE (EN 60034-14 / VDE 0530 part 14)	A (B on request)
INSULATION CLASS	F
COOLING METHOD	LIQUID (flow rate by size) 10 + 25°C (50 + 77 °F) + GLYCOL 20%
Amb. Cond.	0 + 40°C (32 + 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B35, or other on request
BRAKE	up to 2500 Nm (on request)
DE BEARING	BALL (ROLLER request)
NDE BEARING	BALL (INSULATED)
MAX ABSOLUTE SPEED	1800 r.p.m.
PAINTING SYSTEM	NITRO, POLYURETHANIC, C5M, on request



VARIABLES DIMENSIONS BY SIZE			
SIZE	B	O	q
315.40	565	1015	550
315.50	665	1115	650
315.60	765	1215	750
315.70	865	1315	850
315.80	965	1415	950

unit [mm]

400V SUPPLY STANDARD WINDING CODES

Speed Frequency	Type	Rotor Inertia	Max. absolute torque at 400V	Rated torque	Rated power	Rated voltage	Rated current	power factor	Efficiency	Liquid flow rate
rpm Hz		Kgm ²	Nm	Nm	kW	V	A	cosφ	η	L/1'
500 25Hz	315.40	6,6	6.200	3.120	163	375	290	0,91	0,95	38
	315.50	8,2	7.600	3.880	203	365	370	0,91	0,96	40
	315.60	9,9	9.500	4.650	243	370	430	0,92	0,96	42
	315.70	11,5	11.000	5.450	285	360	518	0,92	0,96	44
	315.80	13,2	12.500	6.200	325	365	575	0,93	0,96	46
1000 50Hz	315.40	6,6	6.200	2.910	305	370	540	0,91	0,97	38
	315.50	8,2	7.600	3.630	380	380	645	0,92	0,97	40
	315.60	9,9	9.500	4.400	460	370	815	0,91	0,97	42
	315.70	11,5	11.000	5.140	538	360	975	0,91	0,97	44
	315.80	13,2	12.500	5.780	605	365	1.070	0,92	0,97	46
1500 75Hz	315.40	6,6	6.200	2.870	450	365	800	0,92	0,97	38
	315.50	8,2	7.600	3.560	560	375	955	0,93	0,97	40
	315.60	9,9	9.500	4.250	667	360	1.185	0,92	0,97	42
	315.70	11,5	11.000	4.900	770	370	1.335	0,92	0,97	44
	315.80	13,2	12.500	5.600	880	355	1.565	0,94	0,98	46

All data outputs are referred to power converter clocking frequency (PWM) >4kHz

Other windings on request

POWER DERATING BY INLET LIQUID TEMPERATURE

30°C (86°F) -3,5%

35°C (95°F) -6%

40°C (104°F) -10%

45°C (113°F) -12%

TECHNICAL SPECIFICATIONS

IP PROTECTION	IP23 and IP54 (IP55 on request)
THERMAL PROTECTION	PT100 (and other on request)
SHAFT EXTENSION	FITTED KEY (PLAIN SHAFT on request)
BALANCING	FULL KEY (HALF KEY on request)
VIBRATION GRADE	A (B on request)
INSULATION CLASS	F
COOLING METHOD	IC06, IC416 and Liquid 20°C (68°F) + GLYCOL 20%
AMBIENT CONDITIONS	0 ÷ 40°C (32 ÷ 104°F) 1000m ASL
TRANSDUCER	ENCODER OR RESOLVER (on request)
MOUNTING FORM	B3, B5, B35 by request
PAINTING	NITRO, POLYURETHANIC, C5M, on request

STANDARD WINDINGS DATA

TYPE	Poles 2p=	Max. absolute torque at 400V Nm	RATED POWER RANGE kW	RATED TORQUE RANGE Nm	RATED SPEED RANGE rpm	COOLING METHOD
SY4 DRIVE 132K	4	up to 900	10,3 - 49,5	110 - 240	800 - 2250	IC416
SY4 TETRAVEC 132K	4	up to 900	15 - 79	175 - 360	800 - 2250	IC06
SY4 FLUID 132	4	up to 900	14,6 - 76,5	160 - 340	800 - 2250	LIQUID
SY4 DRIVE 160L	4	up to 1100	24,3 - 94	230 - 525	800 - 2250	IC416
SY4 TETRAVEC 160L	4	up to 1100	35,6 - 147	400 - 680	800 - 2250	IC06
SY4 FLUID 160	4	up to 1100	30,1 - 130	330 - 580	800 - 2250	LIQUID
SY6 DRIVE 200L	6	up to 3000	40 - 167	500 - 915	700 - 2000	IC416
SY6 TETRAVEC 200L	6	up to 3000	68 - 315	860 - 1580	700 - 2000	IC06
SY6 FLUID 200	6	up to 3000	55 - 250	650 - 1310	700 - 2000	LIQUID
SY6 DRIVE 250K	6	up to 6700	84 - 460	1000 - 2460	700 - 2000	IC416
SY6 TETRAVEC 250K	6	up to 6700	123 - 712	1600 - 3700	700 - 2000	IC06
SY6 FLUID 250	6	up to 6700	110 - 650	1350 - 3410	700 - 2000	LIQUID
SY6 DRIVE 315L	6	up to 12500	140 - 750	2450 - 5250	500 - 1500	IC416
SY6 TETRAVEC 315L	6	up to 12500	212 - 1180	3820 - 7830	500 - 1500	IC06
SY6 FLUID 315	6	up to 12500	163 - 880	2870 - 6200	500 - 1500	LIQUID
BRUSHLESS SERVOMOTOR AVAILABLE IN 8 POLES VERSION, IP64						
SY8 SYNCROTECH 11	8	up to 30	0,2 - 2,6	2 - 8	1000 - 5500	IC410
SY8 SYNCROTECH 15	8	up to 100	0,9 - 7,5	9 - 30	1000 - 4000	IC410

All data outputs are referred to power converter clocking frequency (PWM) >4kHz