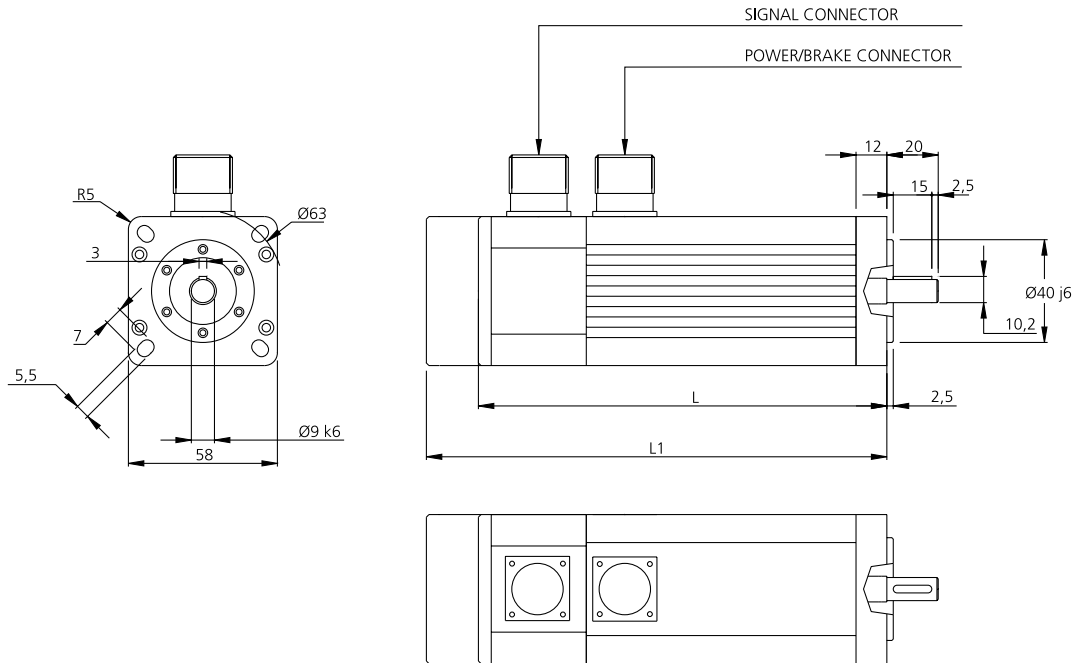


# Technical data and curves

servomotors

**SERIES 28**

B28 voltage H(400 Volt) and M(230 Volt)



Dwg. 13

L = Motor length with resolver as transducer (standard)

L1 = Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B28-D2	0.20	118	125	1.50	146	152	1.65
B28-D4	0.40	133	140	1.70	161	167	1.85
B28-D6	0.60	148	155	1.90	176	182	2.05
B28-D8	0.80	163	170	2.10	191	197	2.25
B28-01	1.00	178	185	2.30	206	212	2.45

Tab. 17

## B28 voltage M(230 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_N$ W	Rated torque $M_N$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed $n_{max}$ rpm	Moment of inertia $J$ $10^{-4}$ Kg $m^2$	Peak torque acceleration $a_{pk}$ rad/sec $^2$	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ $^{\circ}$ C	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_W$ $\Omega$	Winding line to line inductance $L_W$ mH	B.E.M.F. at rated speed $E_N$ Vrms	Stall current $I_0$ Arms	Rated current $I_N$ Arms	Peak current $I_{pk}$ Arms
<b>2000 min<math>^{-1}</math> (4 poles) - Connection Y</b>																		
S28 D2/2	0.20	2000	40	0.19	0.70	6000	0.07	94595	32	140	0.73	1.26	609	615	152	0.16	0.15	0.56
S28 D4/2	0.40	2000	80	0.38	1.40	6000	0.13	111111	35	140	0.73	1.26	204	282	152	0.32	0.30	1.11
S28 D6/2	0.60	2000	119	0.57	2.10	6000	0.18	118644	38	140	0.73	1.26	125	189	152	0.48	0.45	1.67
S28 D8/2	0.80	2000	159	0.76	2.80	6000	0.23	122271	40	140	0.73	1.26	78	126	152	0.64	0.61	2.23
S28 01/2	1.00	2000	199	0.95	3.50	6000	0.28	125000	43	140	0.73	1.26	50	83	152	0.80	0.76	2.79
<b>3000 min<math>^{-1}</math> (4 poles) - Connection Y</b>																		
S28 D2/3	0.20	3000	60	0.19	0.70	6000	0.07	94595	32	140	0.48	0.84	271	273	152	0.24	0.23	0.84
S28 D4/3	0.40	3000	119	0.38	1.40	6000	0.13	111111	35	140	0.48	0.84	91	125	152	0.48	0.45	1.67
S28 D6/3	0.60	3000	179	0.57	2.10	6000	0.18	118644	38	140	0.48	0.84	56	84	152	0.72	0.68	2.51
S28 D8/3	0.80	3000	239	0.76	2.80	6000	0.23	122271	40	140	0.48	0.84	35	56	152	0.96	0.91	3.34
S28 01/3	1.00	3000	298	0.95	3.50	6000	0.28	125000	43	140	0.48	0.84	22	37	152	1.19	1.13	4.18
<b>4000 min<math>^{-1}</math> (4 poles) - Connection Y</b>																		
S28 D2/4	0.20	4000	73	0.18	0.70	6000	0.07	94595	32	140	0.36	0.63	152	154	152	0.32	0.28	1.11
S28 D4/4	0.40	4000	147	0.35	1.40	6000	0.13	111111	35	140	0.36	0.63	51	71	152	0.64	0.56	2.23
S28 D6/4	0.60	4000	218	0.52	2.10	6000	0.18	118644	38	140	0.36	0.63	31	47	152	0.96	0.83	3.34
S28 D8/4	0.80	4000	293	0.70	2.80	6000	0.23	122271	40	140	0.36	0.63	20	32	152	1.27	1.11	4.46
S28 01/4	1.00	4000	364	0.87	3.50	6000	0.28	125000	43	140	0.36	0.63	12	21	152	1.59	1.39	5.57
<b>6000 min<math>^{-1}</math> (4 poles) - Connection Y</b>																		
S28 D2/6	0.20	6000	101	0.16	0.70	6000	0.07	94595	32	140	0.24	0.42	68	68	152	0.48	0.38	1.67
S28 D4/6	0.40	6000	201	0.32	1.40	6000	0.13	111111	35	140	0.24	0.42	23	31	152	0.96	0.76	3.34
S28 D6/6	0.60	6000	302	0.48	2.10	6000	0.18	118644	38	140	0.24	0.42	14	21	152	1.43	1.15	5.02
S28 D8/6	0.80	6000	402	0.64	2.80	6000	0.23	122271	40	140	0.24	0.42	9	14	152	1.91	1.53	6.69
S28 01/6	1.00	6000	503	0.80	3.50	6000	0.28	125000	43	140	0.24	0.42	6	9	152	2.39	1.91	8.36

Tab. 18

## B28 voltage H(400 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_n$ W	Rated torque $M_n$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed $n_{max}$ rpm	Moment of inertia $J$ $10^{-4}$ Kg $m^2$	Peak torque acceleration $a_{pk}$ rad/sec $^2$	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ $^{\circ}$ C	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_w$ $\Omega$	Winding line to line inductance $L_w$ mH	B.E.M.F. at rated speed $E_n$ Vrms	Stall current $I_0$ Arms	Rated current $I_n$ Arms	Peak current $I_{pk}$ Arms
<b>2000 min<math>^{-1}</math> (4 poles)</b>																		
S28 D2/2	0.20	2000	40	0.19	0.70	6000	0.07	94595	32	140	1.26	2.18	1827	1845	263	0.09	0.09	0.32
S28 D4/2	0.40	2000	80	0.38	1.40	6000	0.13	111111	35	140	1.26	2.18	612	846	263	0.18	0.17	0.64
S28 D6/2	0.60	2000	119	0.57	2.10	6000	0.18	118644	38	140	1.26	2.18	376	566	263	0.28	0.26	0.97
S28 D8/2	0.80	2000	159	0.76	2.80	6000	0.23	122271	40	140	1.26	2.18	234	378	263	0.37	0.35	1.29
S28 01/2	1.00	2000	199	0.95	3.50	6000	0.28	125000	43	140	1.26	2.18	149	248	263	0.46	0.44	1.61
<b>3000 min<math>^{-1}</math> (4 poles)</b>																		
S28 D2/3	0.20	3000	60	0.19	0.70	6000	0.07	94595	32	140	0.84	1.45	812	820	263	0.14	0.13	0.48
S28 D4/3	0.40	3000	119	0.38	1.40	6000	0.13	111111	35	140	0.84	1.45	272	376	263	0.28	0.26	0.97
S28 D6/3	0.60	3000	179	0.57	2.10	6000	0.18	118644	38	140	0.84	1.45	167	252	263	0.41	0.39	1.45
S28 D8/3	0.80	3000	239	0.76	2.80	6000	0.23	122271	40	140	0.84	1.45	104	168	263	0.55	0.52	1.93
S28 01/3	1.00	3000	298	0.95	3.50	6000	0.28	125000	43	140	0.84	1.45	66	110	263	0.69	0.66	2.41
<b>4000 min<math>^{-1}</math> (4 poles)</b>																		
S28 D2/4	0.20	4000	73	0.18	0.70	6000	0.07	94595	32	140	0.63	1.09	457	461	263	0.18	0.16	0.64
S28 D4/4	0.40	4000	147	0.35	1.40	6000	0.13	111111	35	140	0.63	1.09	153	212	263	0.37	0.32	1.29
S28 D6/4	0.60	4000	218	0.52	2.10	6000	0.18	118644	38	140	0.63	1.09	94	142	263	0.55	0.48	1.93
S28 D8/4	0.80	4000	293	0.70	2.80	6000	0.23	122271	40	140	0.63	1.09	59	95	263	0.74	0.64	2.57
S28 01/4	1.00	4000	364	0.87	3.50	6000	0.28	125000	43	140	0.63	1.09	37	62	263	0.92	0.80	3.22
<b>6000 min<math>^{-1}</math> (4 poles)</b>																		
S28 D2/6	0.20	6000	101	0.16	0.70	6000	0.07	94595	32	140	0.42	0.73	203	205	263	0.28	0.22	0.97
S28 D4/6	0.40	6000	201	0.32	1.40	6000	0.13	111111	35	140	0.42	0.73	68	94	263	0.55	0.44	1.93
S28 D6/6	0.60	6000	302	0.48	2.10	6000	0.18	118644	38	140	0.42	0.73	42	63	263	0.83	0.66	2.90
S28 D8/6	0.80	6000	402	0.64	2.80	6000	0.23	122271	40	140	0.42	0.73	26	42	263	1.10	0.88	3.86
S28 01/6	1.00	6000	503	0.80	3.50	6000	0.28	125000	43	140	0.42	0.73	17	28	263	1.38	1.10	4.83

Tab. 19

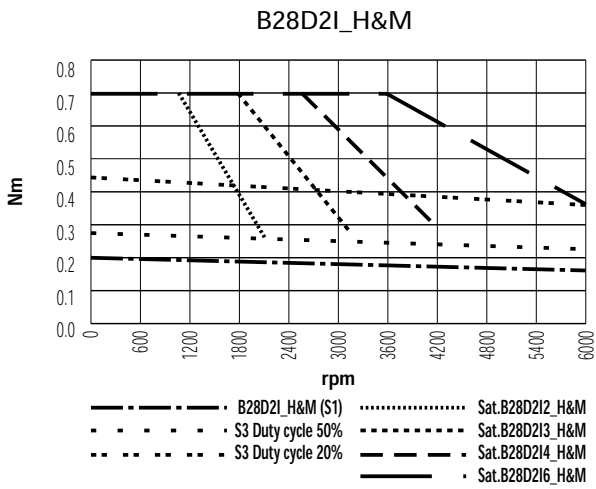


Fig. 7

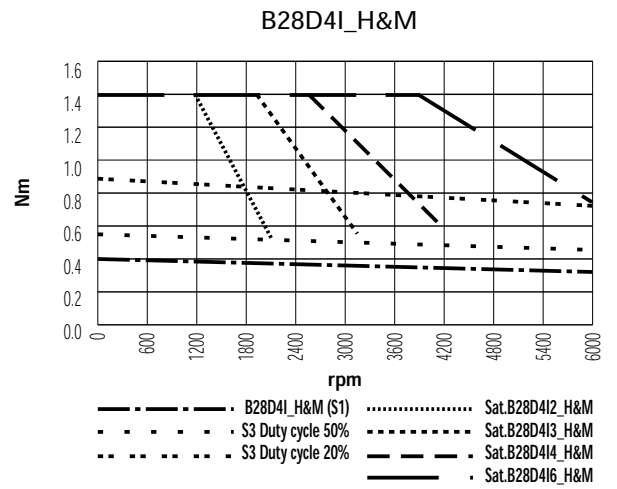


Fig. 8

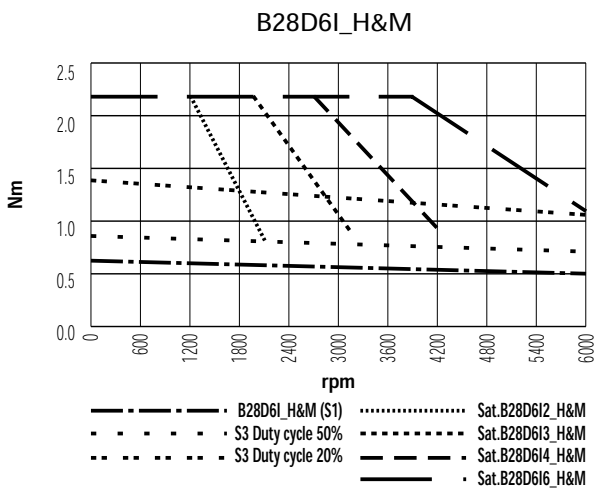


Fig. 9

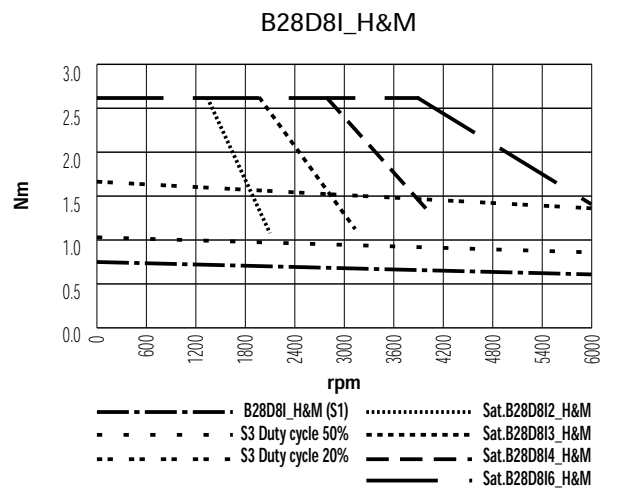


Fig. 10

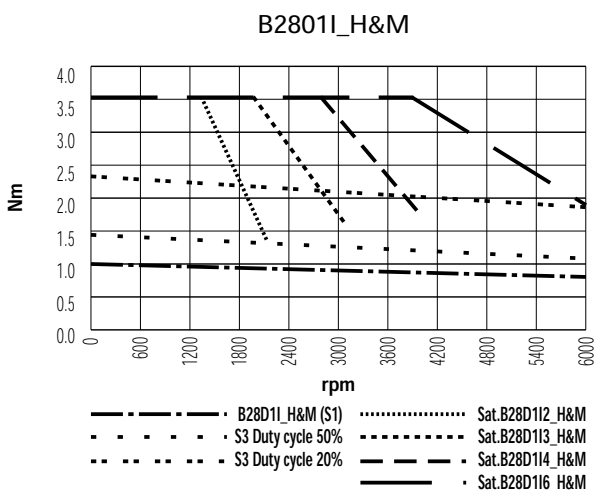
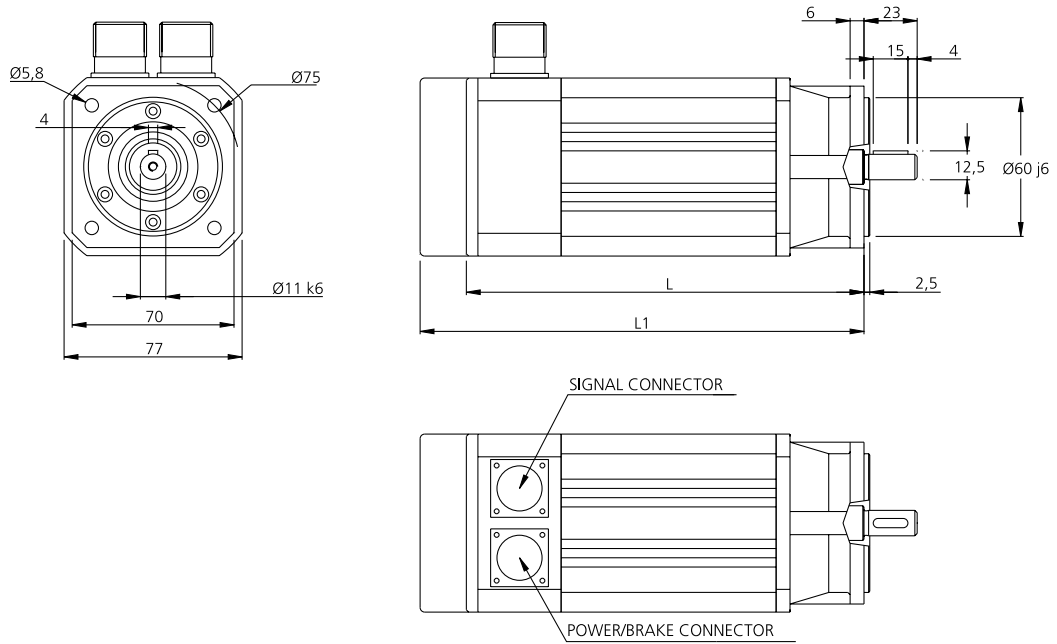


Fig. 11

# Servomotors

# SERIES 36

B36 voltage H(400 Volt) and M(230 Volt)



Dwg. 15

L = Motor length with resolver as transducer (standard)

L1 = Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B36-D6	0.60	126	152	1.4	173	199	2.0
B36-E2	1.20	151	177	2.2	198	224	2.8
B36-E8	1.80	176	202	3.1	223	249	3.7
B36-F5	2.50	201	227	4.0	248	274	4.6
B36-03	3.00	226	252	4.9	273	299	5.5

Tab. 25

## B36 voltage M(230 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_N$ W	Rated torque $M_N$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA					Stall current $I_0$ Arms	Rated current $I_N$ Arms	Peak current $I_{pk}$ Arms
						Maximum speed $n_{max}$ rpm	Moment of inertia $J$ $10^{-4}$ Kg $m^2$	Peak torque acceleration $a_{pk}$ rad/sec $^2$	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ $^{\circ}$ C	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_W$ $\Omega$	Winding line to line inductance $L_W$ mH	B.E.M.F. at rated speed $E_N$ Vrms			
<b>2000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/2	0.60	2000	115	0.55	2.10	6000	0.45	46667	32	140	0.73	1.26	80.5	159.3	152	0.48	0.44	1.67
S36 E2/2	1.20	2000	230	1.10	4.20	6000	0.60	70000	35	140	0.73	1.26	26.8	73.1	152	0.95	0.87	3.33
S36 E8/2	1.80	2000	346	1.65	6.30	6000	0.75	84000	38	140	0.73	1.26	16.5	48.7	152	1.43	1.31	5.00
S36 F5/2	2.50	2000	461	2.20	8.75	6000	0.90	97222	40	140	0.73	1.26	10.3	32.5	152	1.98	1.75	6.94
S36 03/2	3.00	2000	576	2.75	10.50	6000	1.10	95455	43	140	0.73	1.26	6.4	21.6	152	2.38	2.18	8.33
<b>3000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/3	0.60	3000	173	0.55	2.10	6000	0.45	46667	32	140	0.48	0.84	35.8	70.8	152	0.71	0.65	2.50
S36 E2/3	1.20	3000	346	1.10	4.20	6000	0.60	70000	35	140	0.48	0.84	11.9	32.5	152	1.43	1.31	5.00
S36 E8/3	1.80	3000	518	1.65	6.30	6000	0.75	84000	38	140	0.48	0.84	7.3	21.6	152	2.14	1.96	7.50
S36 F5/3	2.50	3000	691	2.20	8.75	6000	0.90	97222	40	140	0.48	0.84	4.6	14.4	152	2.98	2.62	10.42
S36 03/3	3.00	3000	864	2.75	10.50	6000	1.10	95455	43	140	0.48	0.84	2.9	9.6	152	3.57	3.27	12.50
<b>4000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/4	0.60	4000	218	0.52	2.10	6000	0.45	46667	32	140	0.36	0.63	20.1	39.8	152	0.95	0.83	3.33
S36 E2/4	1.20	4000	444	1.06	4.20	6000	0.60	70000	35	140	0.36	0.63	6.7	18.3	152	1.90	1.68	6.67
S36 E8/4	1.80	4000	670	1.60	6.30	6000	0.75	84000	38	140	0.36	0.63	4.1	12.2	152	2.86	2.54	10.00
S36 F5/4	2.50	4000	880	2.10	8.75	6000	0.90	97222	40	140	0.36	0.63	2.6	8.1	152	3.97	3.33	13.89
S36 03/4	3.00	4000	1089	2.60	10.50	6000	1.10	95455	43	140	0.36	0.63	1.6	5.4	152	4.76	4.13	16.67
<b>6000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/6	0.60	6000	314	0.50	2.10	6000	0.45	46667	32	140	0.24	0.42	8.9	17.7	152	1.43	1.19	5.0
S36 E2/6	1.20	6000	628	1.00	4.20	6000	0.60	70000	35	140	0.24	0.42	3.0	8.1	152	2.86	2.38	10.0
S36 E8/6	1.80	6000	942	1.50	6.30	6000	0.75	84000	38	140	0.24	0.42	1.8	5.4	152	4.29	3.57	15.0
S36 F5/6	2.50	6000	1257	2.00	8.75	6000	0.90	97222	40	140	0.24	0.42	1.1	3.6	152	5.95	4.76	20.8
S36 03/6	3.00	6000	1571	2.50	10.50	6000	1.10	95455	43	140	0.24	0.42	0.7	2.4	152	7.14	5.95	25.0

Tab. 26

## B36 voltage H(400 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_n$ W	Rated torque $M_n$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed $n_{max}$ rpm	Moment of inertia $J$ $10^{-4}$ Kg $m^2$	Peak torque acceleration $a_{pk}$ rad/sec $^2$	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ $^{\circ}$ C	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_w$ $\Omega$	Winding line to line inductance $L_w$ mH	B.E.M.F. at rated speed $E_n$ Vrms	Stall current $I_0$ Arms	Rated current $I_n$ Arms	Peak current $I_{pk}$ Arms
<b>2000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/2	0.60	2000	115	0.55	2.10	6000	0.45	46667	32	140	1.26	2.18	240.6	476.2	264	0.27	0.25	0.96
S36 E2/2	1.20	2000	230	1.10	4.20	6000	0.60	70000	35	140	1.26	2.18	80.2	218.4	264	0.55	0.50	1.92
S36 E8/2	1.80	2000	346	1.65	6.30	6000	0.75	84000	38	140	1.26	2.18	49.4	145.6	264	0.82	0.76	2.89
S36 F5/2	2.50	2000	461	2.20	8.75	6000	0.90	97222	40	140	1.26	2.18	30.8	97.1	264	1.15	1.01	4.01
S36 03/2	3.00	2000	576	2.75	10.50	6000	1.10	95455	43	140	1.26	2.18	19.3	64.7	264	1.37	1.26	4.81
<b>3000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/3	0.60	3000	173	0.55	2.10	6000	0.45	46667	32	140	0.84	1.45	106.9	211.6	264	0.41	0.38	1.44
S36 E2/3	1.20	3000	346	1.10	4.20	6000	0.60	70000	35	140	0.84	1.45	35.6	97.1	264	0.82	0.76	2.89
S36 E8/3	1.80	3000	518	1.65	6.30	6000	0.75	84000	38	140	0.84	1.45	21.9	64.7	264	1.24	1.13	4.33
S36 F5/3	2.50	3000	691	2.20	8.75	6000	0.90	97222	40	140	0.84	1.45	13.7	43.1	264	1.72	1.51	6.01
S36 03/3	3.00	3000	864	2.75	10.50	6000	1.10	95455	43	140	0.84	1.45	8.6	28.8	264	2.06	1.89	7.22
<b>4000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/4	0.60	4000	218	0.52	2.10	6000	0.45	46667	32	140	0.63	1.09	60.2	119.0	264	0.55	0.48	1.92
S36 E2/4	1.20	4000	444	1.06	4.20	6000	0.60	70000	35	140	0.63	1.09	20.1	54.6	264	1.10	0.97	3.85
S36 E8/4	1.80	4000	670	1.60	6.30	6000	0.75	84000	38	140	0.63	1.09	12.3	36.4	264	1.65	1.47	5.77
S36 F5/4	2.50	4000	880	2.10	8.75	6000	0.90	97222	40	140	0.63	1.09	7.7	24.3	264	2.29	1.92	8.02
S36 03/4	3.00	4000	1089	2.60	10.50	6000	1.10	95455	43	140	0.63	1.09	4.8	16.2	264	2.75	2.38	9.62
<b>6000 min<math>^{-1}</math> (4 poles)</b>																		
S36 D6/6	0.60	6000	314	0.50	2.10	6000	0.45	46667	32	140	0.42	0.73	26.7	52.9	264	0.82	0.69	2.89
S36 E2/6	1.20	6000	628	1.00	4.20	6000	0.75	70000	35	140	0.42	0.73	8.9	24.3	264	1.65	1.37	5.77
S36 E8/6	1.80	6000	942	1.50	6.30	6000	1.10	84000	38	140	0.42	0.73	5.5	16.2	264	2.47	2.06	8.66
S36 F5/6	2.50	6000	1257	2.00	8.75	6000	0.90	97222	40	140	0.42	0.73	3.4	10.8	264	3.44	2.75	12.03
S36 03/6	3.00	6000	1571	2.50	10.50	6000	1.10	95455	43	140	0.42	0.73	2.1	7.2	264	4.12	3.44	14.43

Tab. 27

B36D6I\_H&M

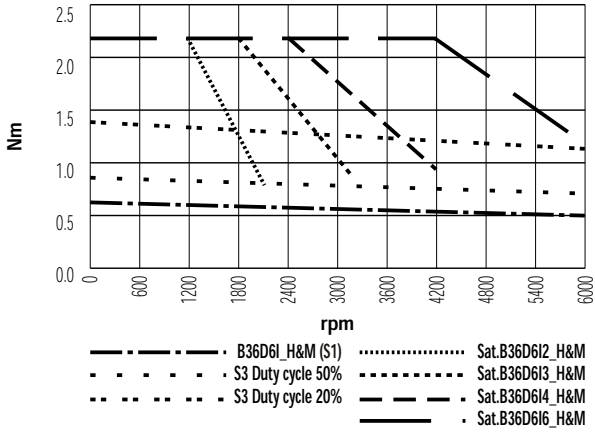


Fig. 22

B36E2I\_H&M

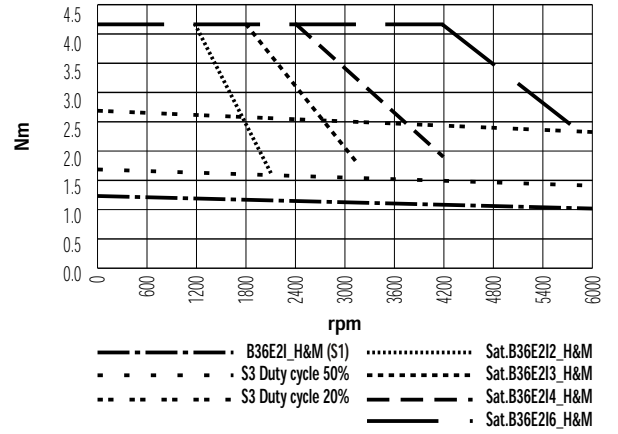


Fig. 23

B36E8I\_H&M

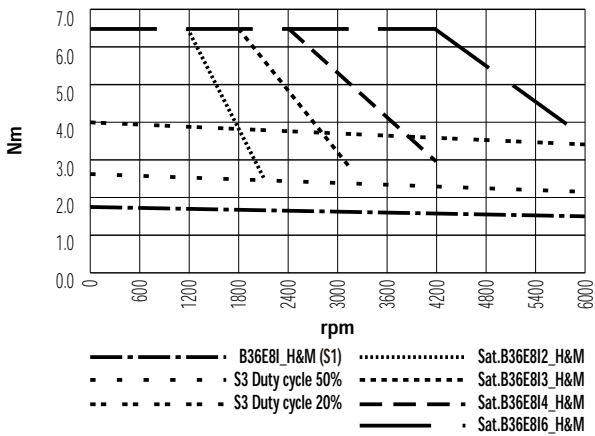


Fig. 24

B36F5I\_H&M

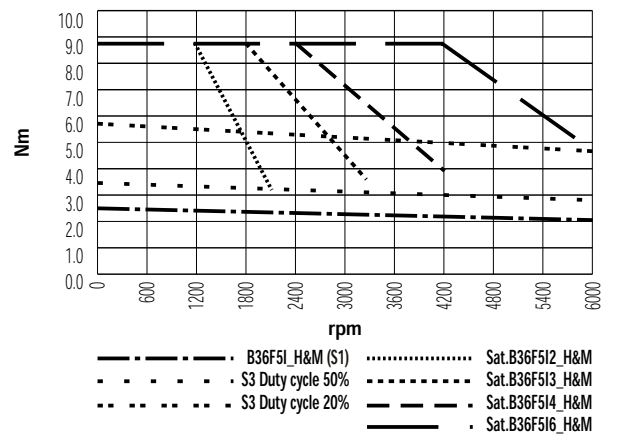


Fig. 25

B3603I\_H&M

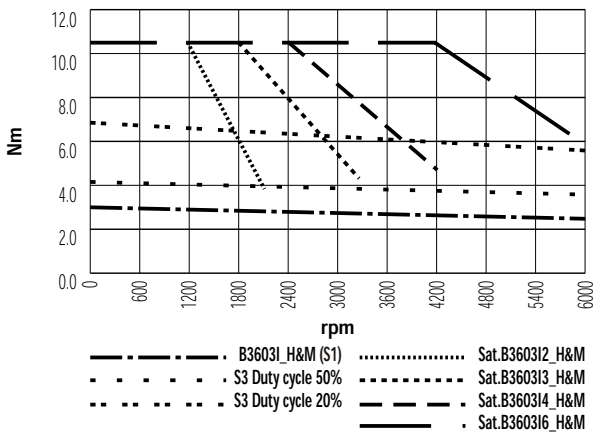


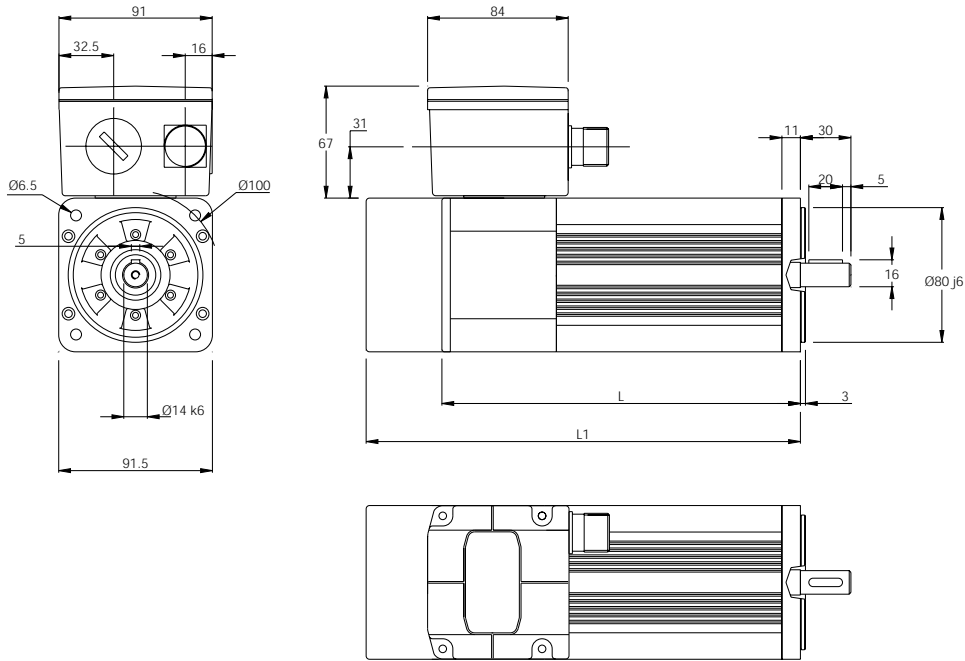
Fig. 26



# Servomotors

# SERIES 56

4 poles: B56 voltage H(400 Volt) and M(230 Volt)



Dwg. 17

L = Motor length with resolver as transducer (standard)

L1 = Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B56-D6	0.60	185	224	3.7	212.5	251	4.3
B56-01	1.30	210	249	4.6	237.5	276	5.2
B56-02	1.90	235	274	5.6	262.5	301	6.2
B56-03	2.80	265	299	6.5	287.5	326	7.1

Tab. 33

## B56 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	$n$	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	$J$	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_W$	$L_W$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kg $m^2$	rad/sec $^2$	min	$^{\circ}$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/2	0.6	2000	0.13	0.6	1.7	6000	0.73	23288	50	140	0.73	1.26	104	290	152	0.5	0.5	1.3
S56 01/2	1.3	2000	0.23	1.1	3.3	6000	1.40	23571	45	140	0.73	1.26	40	143	152	1.0	0.9	2.6
S56 02/2	1.9	2000	0.36	1.7	4.8	6000	1.84	26087	76	140	0.73	1.26	21	91	152	1.5	1.3	3.8
S56 03/2	2.8	2000	0.50	2.4	6.6	6000	2.28	28947	95	140	0.73	1.26	14	66	152	2.2	1.9	5.2
<b>3000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/3	0.6	3000	0.16	0.5	1.7	6000	0.73	23288	50	140	0.48	0.84	52	142	152	0.7	0.6	2.0
S56 01/3	1.3	3000	0.31	1.0	3.3	6000	1.40	23571	45	140	0.48	0.84	18	64	152	1.5	1.2	3.9
S56 02/3	1.9	3000	0.50	1.6	4.8	6000	1.84	26087	76	140	0.48	0.84	9	41	152	2.3	1.9	5.7
S56 03/3	2.8	3000	0.69	2.2	6.6	6000	2.28	28947	95	140	0.48	0.84	6	30	152	3.3	2.6	7.9
<b>4000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/4	0.60	4000	0.21	0.50	1.7	6000	0.73	23288	50	140	0.36	0.63	29.7	79.3	152	1.0	0.8	2.7
S56 01/4	1.30	4000	0.42	1.00	3.3	6000	1.40	23571	45	140	0.36	0.63	10.1	35.8	152	2.1	1.6	5.2
S56 02/4	1.90	4000	0.63	1.50	4.8	6000	1.84	26087	76	140	0.36	0.63	5.4	23.3	152	3.0	2.4	7.6
S56 03/4	2.80	4000	0.88	2.10	6.6	6000	2.28	28947	95	140	0.36	0.63	3.5	16.5	152	4.4	3.3	10.5
<b>6000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/6	0.60	6000	0.25	0.40	1.7	6000	0.73	23288	50	140	0.24	0.42	13.1	35.5	152	1.4	1.0	4.0
S56 01/6	1.30	6000	0.57	0.90	3.3	6000	1.40	23571	45	140	0.24	0.42	4.6	16.4	152	3.1	2.1	7.9
S56 02/6	1.90	6000	0.82	1.30	4.8	6000	1.84	26087	76	140	0.24	0.42	2.4	10.6	152	4.5	3.1	11.4
S56 03/6	2.80	6000	1.19	1.90	6.6	6000	2.28	28947	95	140	0.24	0.42	1.6	7.6	152	6.7	4.5	15.7

Tab. 34

## B56 voltage H(400 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	n	$P_n$	$M_n$	$M_{pk}$	$n_{max}$	J	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_w$	$L_w$	$E_n$	$I_0$	$I_n$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kg $m^2$	rad/sec $^2$	min	$^{\circ}$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/2	0.6	2000	0.13	0.6	1.7	6000	0.73	23288	50	140	1.26	2.18	374.4	994.2	263	0.3	0.3	0.8
S56 01/2	1.3	2000	0.23	1.1	3.3	6000	1.40	23571	45	140	1.26	2.18	120.7	423.0	263	0.6	0.5	1.5
S56 02/2	1.9	2000	0.36	1.7	4.8	6000	1.84	26087	76	140	1.26	2.18	62.6	272.0	263	0.9	0.8	2.2
S56 03/2	2.8	2000	0.50	2.4	6.6	6000	2.28	28947	95	140	1.26	2.18	37.8	168.4	263	1.3	1.1	3.0
<b>3000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/3	0.6	3000	0.16	0.5	1.7	6000	0.73	23288	50	140	0.84	1.45	160.2	445.6	263	0.4	0.3	1.2
S56 01/3	1.3	3000	0.31	1.0	3.3	6000	1.40	23571	45	140	0.84	1.45	52.7	187.2	263	0.9	0.7	2.3
S56 02/3	1.9	3000	0.50	1.6	4.8	6000	1.84	26087	76	140	0.84	1.45	27.8	121.7	263	1.3	1.1	3.3
S56 03/3	2.8	3000	0.69	2.2	6.6	6000	2.28	28947	95	140	0.84	1.45	17.9	75.5	263	1.9	1.5	4.6
<b>4000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/4	0.6	4000	0.21	0.5	1.7	6000	0.73	23288	50	140	0.63	1.09	90.5	248.6	263	0.6	0.5	1.6
S56 01/4	1.3	4000	0.42	1.0	3.3	6000	1.40	23571	45	140	0.63	1.09	29.8	105.8	263	1.2	0.9	3.0
S56 02/4	1.9	4000	0.63	1.5	4.8	6000	1.84	26087	76	140	0.63	1.09	15.9	68.9	263	1.7	1.4	4.4
S56 03/4	2.8	4000	0.88	2.1	6.6	6000	2.28	28947	95	140	0.63	1.09	10.0	42.1	263	2.6	1.9	6.1
<b>6000 min<math>^{-1}</math> (4 poles)</b>																		
S56 D6/6	0.6	6000	0.25	0.4	1.7	6000	0.73	23288	50	140	0.42	0.73	39.6	110.0	263	0.8	0.6	2.3
S56 01/6	1.3	6000	0.57	0.9	3.3	6000	1.40	23571	45	140	0.42	0.73	13.3	47.4	263	1.8	1.2	4.6
S56 02/6	1.9	6000	0.82	1.3	4.8	6000	1.84	26087	76	140	0.42	0.73	7.4	31.0	263	2.6	1.8	6.6
S56 03/6	2.8	6000	1.19	1.9	6.6	6000	2.28	28947	95	140	0.42	0.73	4.4	18.4	263	3.9	2.6	9.1

Tab. 35

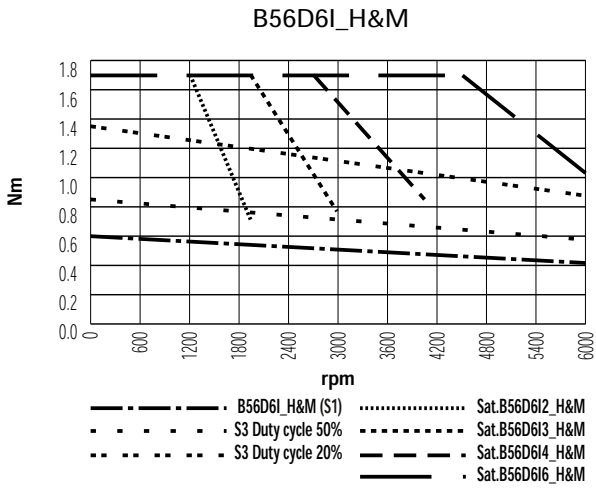


Fig. 33

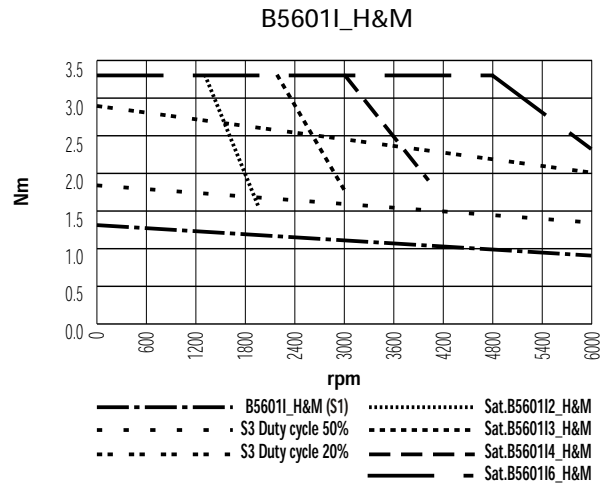


Fig. 34

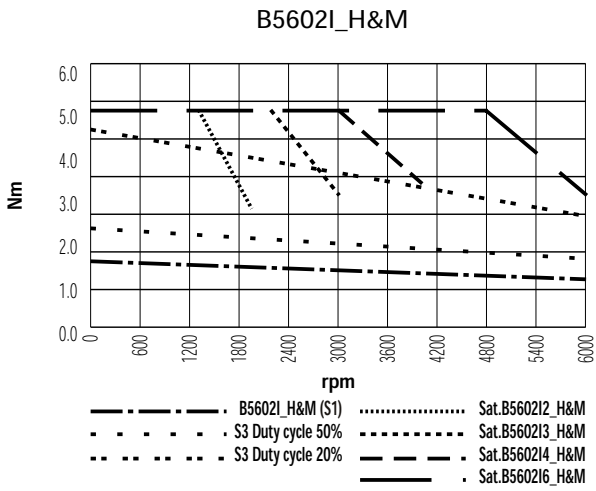


Fig. 35

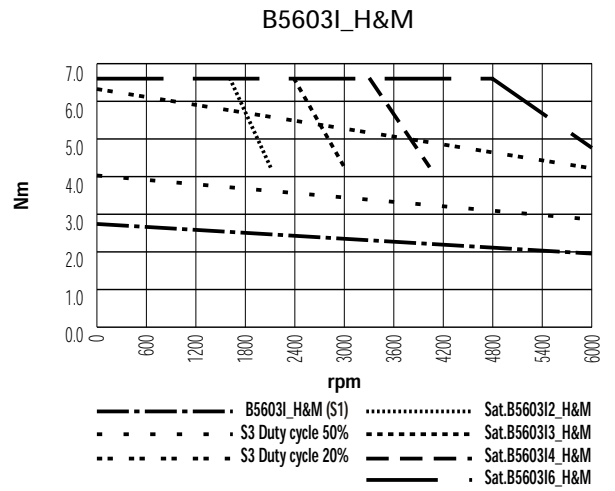


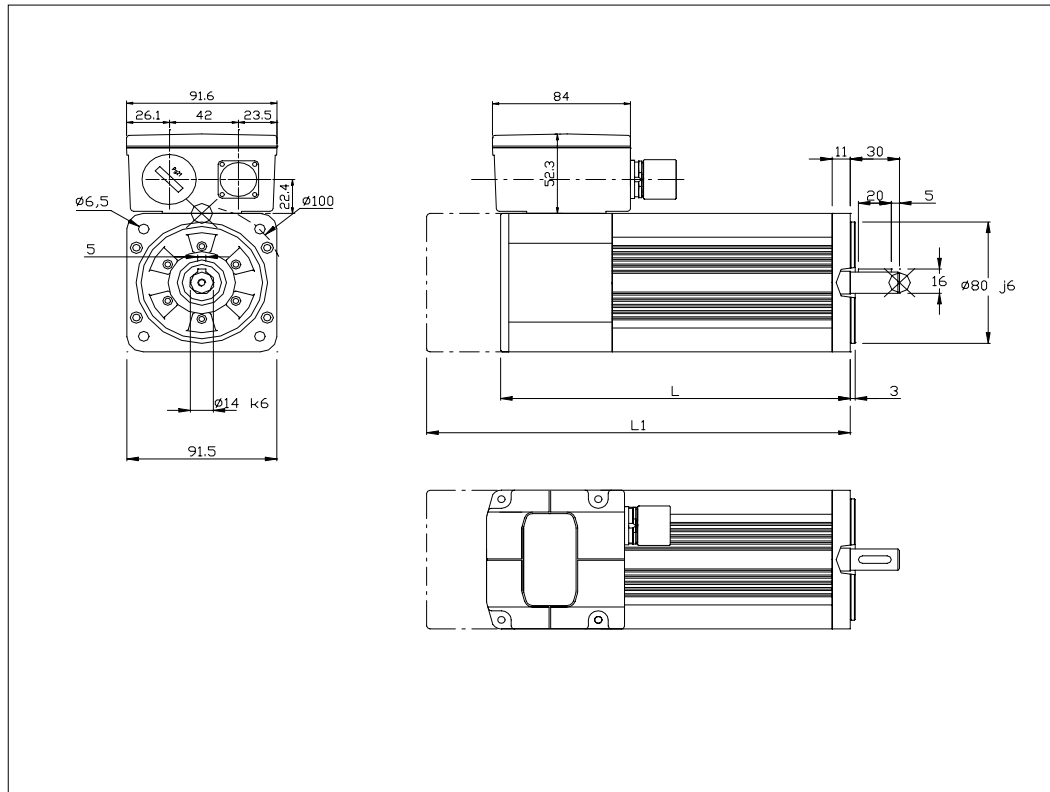
Fig. 36

## Servomotors

## SERIE 56

B56 8 Poles Voltage M (230 Volt)

B56 8 Poles Voltage H (400 Volt)



L1 = Motor length with encoder as transducer (standard)

L = Motor length with resolver as transducer

Type	Nm	L no brake mm	L1 no brake mm	Weight no brake (KG)	L with brake mm	L1 with brake mm	Weight with brake (KG)
<b>B56-01</b>	1,00	185	224	3,7	212	251	4,3
<b>B56-02</b>	2,00	210	249	4,6	237	276	5,2
<b>B56-03</b>	3,20	235	274	5,6	262	301	6,2
<b>B56-04</b>	4,20	260	299	6,6	287	326	7,2
<b>B56-05*</b>	5,30	285	324	7,6	312	351	8,2

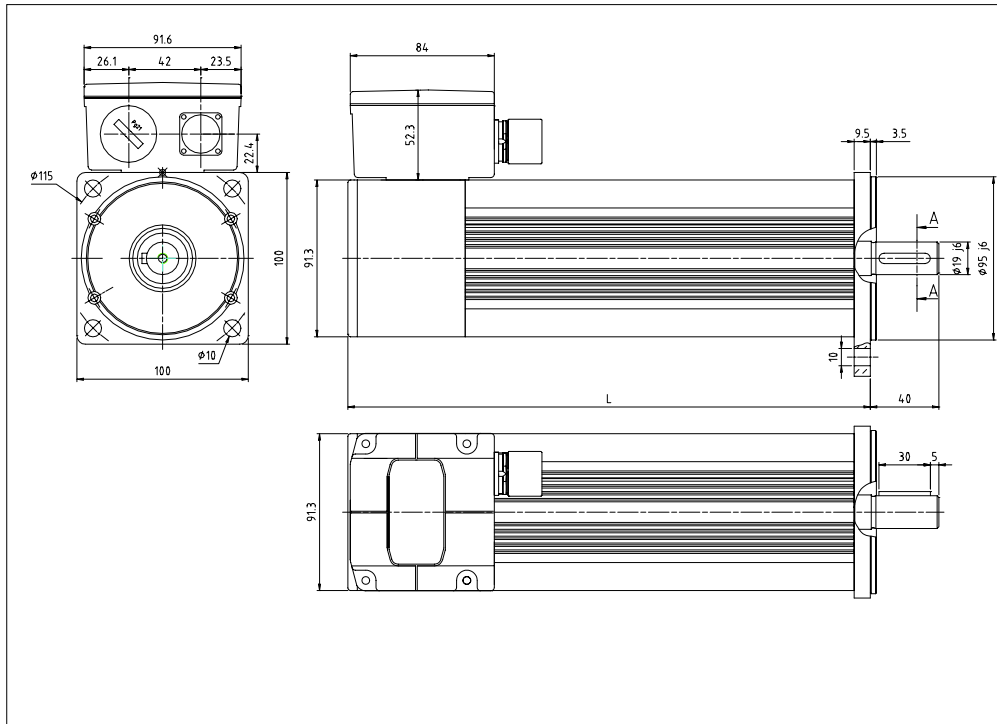
\*Available only for some applications

## Servomotors

## SERIE 56 (option flange 95 mm)

B56 8 Poles Voltage M (230 Volt)

B56 8 Poles Voltage H (400 Volt)



L1 = Motor length with encoder as transducer (standard)

L = Motor length with resolver as transducer

Type	Nm	L no brake mm	L1 no brake mm	Weight no brake (KG)	L with brake mm	L1 with brake mm	Weight with brake (KG)
<b>B56-01</b>	1,00	185	224	3,7	230	269	4,5
<b>B56-02</b>	2,00	210	249	4,6	255	294	5,4
<b>B56-03</b>	3,20	235	274	5,6	280	319	6,4
<b>B56-04</b>	4,20	260	299	6,6	305	344	7,4
<b>B56-05</b>	5,30	285	324	7,6	330	369	8,4

## B56 8 Poles Voltage M (230 Volt)

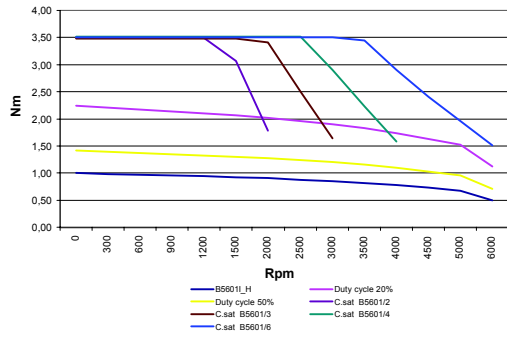
Motor type	Sattl torque (Dl=100°C) Ml0 Nm	Rated speed n 1/min	Output at rated speed Pn W	Rated torque Mn Nm	Peak torque Mpk Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA								
						Maximum speed nmax rpm	Moment of inertia J x10-4 Kg·m²	Peak torque acceleration apk rad/sec²	Thermal time constant Tth min	Thermal protection threshold Jmax °C	Voltage constant ke Vs	Torque constant kt Nm/A	Winding line to line resistance (20°C) Rw Ohm	Winding line to line inductance Lw mH	BEMF at rated speed En V	Stall current I0 A	Rated current In A	Peak current Ipk A	
<b>2000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/2	1,0	2000	188	0,90	3,5	6000	0,73	47945	32	140	0,74	1,28	28,7	48,7	155	0,78	0,70	2,74
S56	02/2	2,0	2000	356	1,70	7,1	6000	1,40	50714	35	140	0,74	1,28	10,2	17,2	155	1,56	1,33	5,55
S56	03/2	3,2	2000	586	2,80	10,0	6000	1,84	54348	38	140	0,74	1,28	7,2	13,6	155	2,50	2,19	7,81
S56	04/2	4,2	2000	754	3,60	14,0	6000	2,28	61404	40	140	0,74	1,28	4,9	9,7	155	3,28	2,81	10,94
S56	05/2	5,3	2000	951	4,54	18,0	6000	2,72	66176	40	140	0,74	1,28	3,5	6,9	155	4,14	3,55	14,07
<b>3000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/3	1,0	3000	251	0,80	3,5	6000	0,73	47945	32	140	0,49	0,85	12,6	21,4	155	1,17	0,94	4,10
S56	02/3	2,0	3000	503	1,60	7,1	6000	1,40	50714	35	140	0,49	0,85	4,5	7,6	155	2,34	1,88	8,32
S56	03/3	3,2	3000	817	2,60	10,0	6000	1,84	54348	38	140	0,49	0,85	3,2	6,1	155	3,75	3,05	11,72
S56	04/3	4,2	3000	1068	3,40	14,0	6000	2,28	61404	40	140	0,49	0,85	2,2	4,4	155	4,92	3,99	16,41
S56	05/3	5,3	3000	1351	4,30	18,0	6000	2,72	66176	40	140	0,49	0,85	1,6	3,2	155	6,21	5,04	21,10
<b>4000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/4	1,0	4000	293	0,70	3,5	6000	0,73	47945	32	140	0,37	0,64	7,3	12,3	155	1,56	1,09	5,47
S56	02/4	2,0	4000	586	1,40	7,1	6000	1,40	50714	35	140	0,37	0,64	2,5	4,3	155	3,13	2,19	11,10
S56	03/4	3,2	4000	963	2,30	10,0	6000	1,84	54348	38	140	0,37	0,64	1,9	3,5	155	5,00	3,59	15,63
S56	04/4	4,2	4000	1257	3,00	14,0	6000	2,28	61404	40	140	0,37	0,64	1,2	2,3	155	6,56	4,69	21,88
S56	05/4	5,3	4000	1592	3,80	18,0	6000	2,72	66176	40	140	0,37	0,64	0,8	1,7	155	8,28	5,94	28,13
<b>6000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/6	1,0	6000	314	0,50	3,5	6000	0,73	47945	32	140	0,25	0,43	3,3	5,5	155	2,34	1,17	8,21
S56	02/6	2,0	6000	691	1,10	7,1	6000	1,40	50714	35	140	0,25	0,43	1,2	2,0	155	4,69	2,58	16,65
S56	03/6	3,2	6000	1068	1,70	10,0	6000	1,84	54348	38	140	0,25	0,43	0,8	1,5	155	7,50	3,99	23,44
S56	04/6	4,2	6000	1445	2,30	14,0	6000	2,28	61404	40	140	0,25	0,43	0,5	1,0	155	9,85	5,39	32,82
S56	05/6	5,3	6000	1759	2,80	18,0	6000	2,72	66176	40	140	0,25	0,37	0,4	0,7	155	12,43	6,56	42,20

## B56 8 Poles Voltage H (400 Volt)

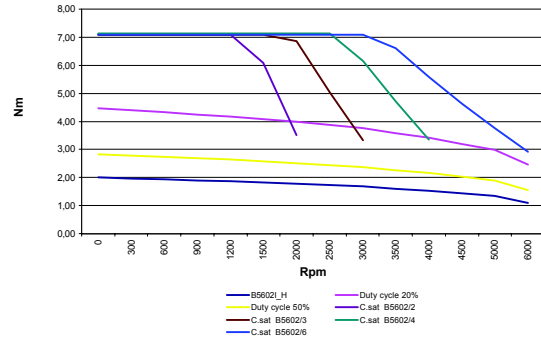
Motor type	Sattl torque (Dl=100°C) Ml0 Nm	Rated speed n 1/min	Output at rated speed Pn W	Rated torque Mn Nm	Peak torque Mpk Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA								
						Maximum speed nmax rpm	Moment of inertia J x10-4 Kg·m²	Peak torque acceleration apk rad/sec²	Thermal time constant Tth min	Thermal protection threshold Jmax °C	Voltage constant ke Vs	Torque constant kt Nm/A	Winding line to line resistance (20°C) Rw Ohm	Winding line to line inductance Lw mH	BEMF at rated speed En V	Stall current I0 A	Rated current In A	Peak current Ipk A	
<b>2000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/2	1,0	2000	188	0,90	3,5	6000	0,73	47945	32	140	1,28	2,22	86,2	146,1	268	0,45	0,41	1,58
S56	02/2	2,0	2000	356	1,70	7,1	6000	1,40	50714	35	140	1,28	2,22	30,5	51,7	268	0,90	0,77	3,20
S56	03/2	3,2	2000	586	2,80	10,0	6000	1,84	54348	38	140	1,28	2,22	21,8	41,2	268	1,44	1,26	4,51
S56	04/2	4,2	2000	754	3,60	14,0	6000	2,28	61404	40	140	1,28	2,22	14,6	28,7	268	1,90	1,62	6,32
S56	05/2	5,3	2000	951	4,54	18,0	6000	2,72	66176	40	140	1,28	2,22	10,4	20,6	268	2,39	2,05	8,12
<b>3000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/3	1,0	3000	251	0,80	3,5	6000	0,73	47945	32	140	0,85	1,48	38,1	64,5	268	0,68	0,54	2,37
S56	02/3	2,0	3000	503	1,60	7,1	6000	1,40	50714	35	140	0,85	1,48	13,5	22,8	268	1,35	1,08	4,81
S56	03/3	3,2	3000	817	2,60	10,0	6000	1,84	54348	38	140	0,85	1,48	9,7	18,3	268	2,17	1,76	6,77
S56	04/3	4,2	3000	1068	3,40	14,0	6000	2,28	61404	40	140	0,85	1,48	6,7	13,1	268	2,84	2,30	9,48
S56	05/3	5,3	3000	1351	4,30	18,0	6000	2,72	66176	40	140	0,85	1,48	4,8	9,4	268	3,59	2,91	12,18
<b>4000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/4	1,0	4000	293	0,70	3,5	6000	0,73	47945	32	140	0,64	1,11	21,4	36,3	268	0,90	0,63	3,16
S56	02/4	2,0	4000	586	1,40	7,1	6000	1,40	50714	35	140	0,64	1,11	7,5	12,7	268	1,80	1,26	6,41
S56	03/4	3,2	4000	963	2,30	10,0	6000	1,84	54348	38	140	0,64	1,11	5,5	10,5	268	2,89	2,08	9,02
S56	04/4	4,2	4000	1257	3,00	14,0	6000	2,28	61404	40	140	0,64	1,11	3,6	7,2	268	3,79	2,71	12,63
S56	05/4	5,3	4000	1592	3,80	18,0	6000	2,72	66176	40	140	0,64	1,11	2,6	5,1	268	4,78	3,43	16,24
<b>6000 Min<sup>-1</sup> (8 poles)</b>																			
S56	01/6	1,0	6000	314	0,50	3,5	6000	0,73	47945	32	140	0,43	0,74	9,7	16,5	268	1,35	0,68	4,74
S56	02/6	2,0	6000	691	1,10	7,1	6000	1,40	50714	35	140	0,43	0,74	3,4	5,8	268	2,71	1,49	9,61
S56	03/6	3,2	6000	1068	1,70	10,0	6000	1,84	54348	38	140	0,43	0,74	2,4	4,6	268	4,33	2,30	13,54
S56	04/6	4,2	6000	1445	2,30	14,0	6000	2,28	61404	40	140	0,43	0,74	1,6	3,3	268	5,69	3,11	18,95
S56	05/6	5,3	6000	1759	2,80	18,0	6000	2,72	66176	40	140	0,43	0,74	1,2	2,3	268	7,17	3,79	24,36



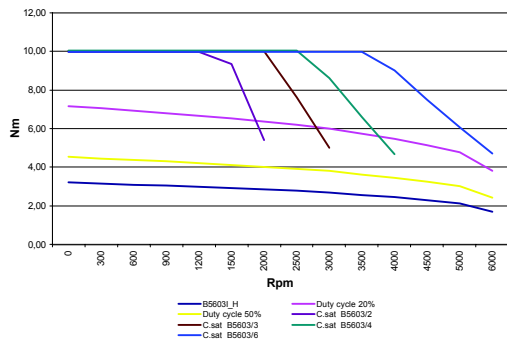
**B5601P\_M&H**



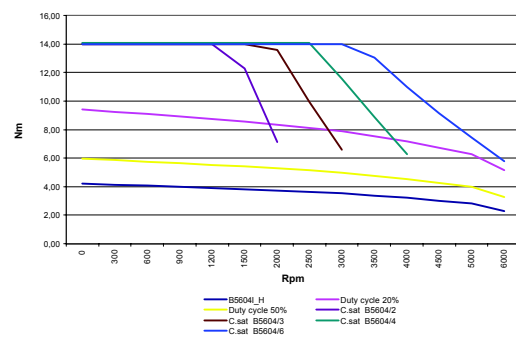
**B5602P\_M&H**



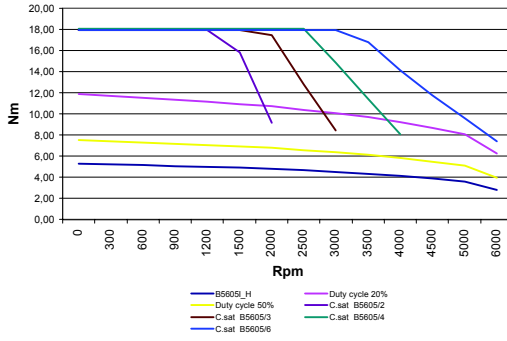
**B5603P\_M&H**



**B5604P\_M&H**



**B5605P\_M&H**

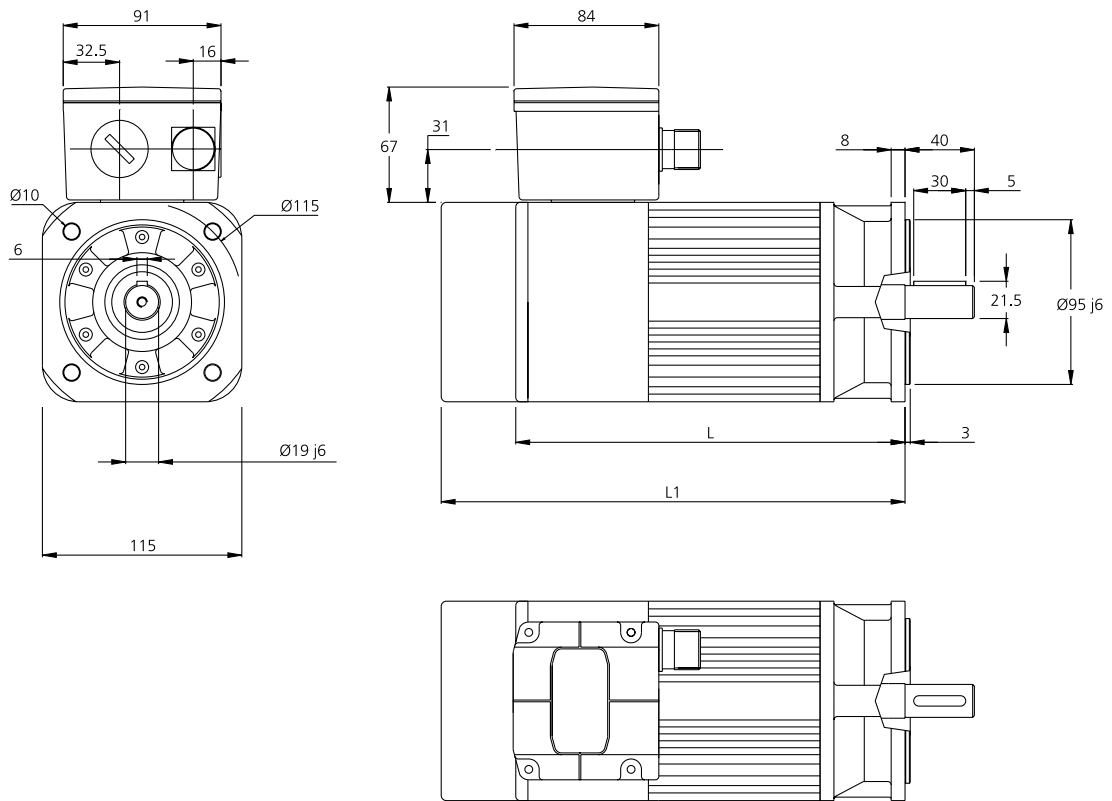


# Servomotors

# SERIES 63

6 poles: B63 voltage H(400 Volt) and M(230 Volt)

8 poles: B63 voltage H(400 Volt) and M(230 Volt)



Dwg. 18

L = Motor length with resolver as transducer (standard)

L1= Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B63-04	4.0	224	256	7.1	254.5	286.5	8.0
B63-06	6.0	249	281	9.0	279.5	311.5	10.1
B63-08	8.0	274	306	10.1	304.5	336.5	12.0
B63-10	10.0	299	331	12.0	329.5	361.5	13.9

Tab. 38

## B63 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	n	$P_n$	$M_n$	$M_{pk}$	$n_{max}$	J - *J $10^{-4}$ Kg $m^2$	$a_{pk}$ - * $a_{pk}$	$T_{th}$	$\dot{\theta}_{max}$	$k_e$	$k_t$	$R_w$	$L_w$	$E_n$	$I_0$	$I_n$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm		rad/sec $^2$	min	$^\circ$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (6 poles)</b>																		
<b>S63 04/2</b>	4.0	2000	0.75	3.6	17.1	4000	5.81 - 8.64	29432 - 19792	25	140	0.82	1.41	7.85	37.78	171	2.8	2.5	12.1
<b>S63 06/2</b>	6.0	2000	1.13	5.4	24.4	4000	8.55 - 13.32	28538 - 18318	30	140	0.82	1.41	4.87	25.67	171	4.2	3.8	17.3
<b>S63 08/2</b>	8.0	2000	1.53	7.3	33.1	4000	11.20 - 17.99	29554 - 18399	30	140	0.82	1.41	2.86	16.66	171	5.7	5.2	23.4
<b>S63 10/2</b>	10.0	2000	1.91	9.1	40.5	4000	13.65 - 22.67	29670 - 17865	35	140	0.82	1.41	2.18	12.86	171	7.1	6.4	28.6
<b>3000 min<math>^{-1}</math> (6 poles)</b>																		
<b>S63 04/3</b>	4.0	3000	1.10	3.5	17.1	4000	5.81 - 8.64	29432 - 19792	25	140	0.54	0.94	3.60	17.08	171	4.2	3.7	18.1
<b>S63 06/3</b>	6.0	3000	1.67	5.3	24.4	4000	8.55 - 13.32	28538 - 18318	30	140	0.54	0.94	2.20	11.41	171	6.4	5.6	25.9
<b>S63 08/3</b>	8.0	3000	2.23	7.1	33.1	4000	11.20 - 17.99	29554 - 18399	30	140	0.54	0.94	1.30	7.67	171	8.5	7.5	35.1
<b>S63 10/3</b>	10.0	3000	2.76	8.8	40.5	4000	13.65 - 22.67	29670 - 17865	35	140	0.54	0.94	0.93	5.47	171	10.6	9.3	43.0
<b>4000 min<math>^{-1}</math> (6 poles)</b>																		
<b>S63 04/4</b>	4.0	4000	1.38	3.3	17.1	6000	5.81 - 8.64	29432 - 19792	25	140	0.41	0.71	2.00	9.45	171	5.7	4.7	24.2
<b>S63 06/4</b>	6.0	4000	2.09	5.0	24.4	6000	8.55 - 13.32	28538 - 18318	30	140	0.41	0.71	1.14	6.09	171	8.5	7.1	34.5
<b>S63 08/4</b>	8.0	4000	2.76	6.6	33.1	6000	11.20 - 17.99	29554 - 18399	30	140	0.41	0.71	0.71	4.16	171	11.3	9.3	46.8
<b>S63 10/4</b>	10.0	4000	3.43	8.2	40.5	6000	13.65 - 22.67	29670 - 17865	35	140	0.41	0.71	0.55	3.31	171	14.1	11.6	57.3
<b>6000 min<math>^{-1}</math> (6 poles)</b>																		
<b>S63 04/6</b>	4.0	6000	1.88	3.0	17.1	6000	5.81 - 8.64	29432 - 19792	25	140	0.27	0.47	0.85	4.05	171	8.5	6.4	36.3
<b>S63 06/6</b>	6.0	6000	2.89	4.6	24.4	6000	8.55 - 13.32	28538 - 18318	30	140	0.27	0.47	0.54	2.85	171	12.7	9.8	51.8
<b>S63 08/6</b>	8.0	6000	3.90	6.2	33.1	6000	11.20 - 17.99	29554 - 18399	30	140	0.27	0.47	0.35	1.99	171	17.0	13.2	70.2
<b>S63 10/6</b>	10.0	6000	4.84	7.7	40.5	6000	13.65 - 22.67	29670 - 17865	35	140	0.27	0.47	0.24	1.43	171	21.2	16.3	85.9

Note: J standard inertia, \*J higher inertia

Tab. 39

## B63 voltage H(400 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	n	$P_n$	$M_n$	$M_{pk}$	$n_{max}$	J - *J $10^{-4}$ Kg $m^2$	$a_{pk}$ - * $a_{pk}$ rad/sec $^2$	$T_{th}$ min	$\vartheta_{max}$ $^{\circ}C$	$k_e$ Vs	$k_t$ Nm/A	$R_w$ $\Omega$	$L_w$ mH	$E_n$ Vrms	$I_0$ Arms	$I_n$ Arms	$I_{pk}$ Arms
<b>2000 min<sup>-1</sup> (6 poles)</b>																		
S63 04/2	4.0	2000	0.75	3.6	17.1	4000	5.81 - 8.64	29432 - 19792	25	140	1.41	2.45	26.05	110.59	296	1.6	1.5	7.0
S63 06/2	6.0	2000	1.13	5.4	24.4	4000	8.55 - 13.32	28538 - 18318	30	140	1.41	2.45	13.59	69.23	296	2.5	2.2	10.0
S63 08/2	8.0	2000	1.53	7.3	33.1	4000	11.20 - 17.99	29554 - 18399	30	140	1.41	2.45	9.06	51.75	296	3.3	3.0	13.5
S63 10/2	10.0	2000	1.91	9.1	40.5	4000	13.65 - 22.67	29670 - 17865	35	140	1.41	2.45	6.44	40.08	296	4.1	3.7	16.6
<b>3000 min<sup>-1</sup> (6 poles)</b>																		
S63 04/3	4.0	3000	1.10	3.5	17.1	4000	5.81 - 8.64	29432 - 19792	25	140	0.94	1.63	11.52	48.67	296	2.5	2.1	10.5
S63 06/3	6.0	3000	1.67	5.3	24.4	4000	8.55 - 13.32	28538 - 18318	30	140	0.94	1.63	6.19	31.23	296	3.7	3.3	15.0
S63 08/3	8.0	3000	2.23	7.1	33.1	4000	11.20 - 17.99	29554 - 18399	30	140	0.94	1.63	4.15	23.93	296	4.9	4.4	20.3
S63 10/3	10.0	3000	2.76	8.8	40.5	4000	13.65 - 22.67	29670 - 17865	35	140	0.94	1.63	2.93	18.26	296	6.1	5.4	24.8
<b>4000 min<sup>-1</sup> (6 poles)</b>																		
S63 04/4	4.0	4000	1.38	3.3	17.1	6000	5.81 - 8.64	29432 - 19792	25	140	0.71	1.22	6.45	27.10	296	3.3	2.7	14.0
S63 06/4	6.0	4000	2.09	5.0	24.4	6000	8.55 - 13.32	28538 - 18318	30	140	0.71	1.22	3.53	17.83	296	4.9	4.1	20.0
S63 08/4	8.0	4000	2.76	6.6	33.1	6000	11.20 - 17.99	29554 - 18399	30	140	0.71	1.22	2.22	12.94	296	6.5	5.4	27.1
S63 10/4	10.0	4000	3.43	8.2	40.5	6000	13.65 - 22.67	29670 - 17865	35	140	0.71	1.22	1.61	10.02	296	8.2	6.7	33.1
<b>6000 min<sup>-1</sup> (6 poles)</b>																		
S63 04/6	4.0	6000	1.88	3.0	17.1	6000	5.81 - 8.64	29432 - 19792	25	140	0.47	0.82	2.95	12.53	296	4.9	3.7	21.0
S63 06/6	6.0	6000	2.89	4.6	24.4	6000	8.55 - 13.32	28538 - 18318	30	140	0.47	0.82	1.59	8.16	296	7.4	5.6	29.9
S63 08/6	8.0	6000	3.90	6.2	33.1	6000	11.20 - 17.99	29554 - 18399	30	140	0.47	0.82	1.02	5.98	296	9.8	7.6	40.6
S63 10/6	10.0	6000	4.84	7.7	40.5	6000	13.65 - 22.67	29670 - 17865	35	140	0.47	0.82	0.80	4.91	296	12.3	9.4	49.7

Note: J standard inertia, \*J higher inertia

Tab. 40

B6304I\_H&M

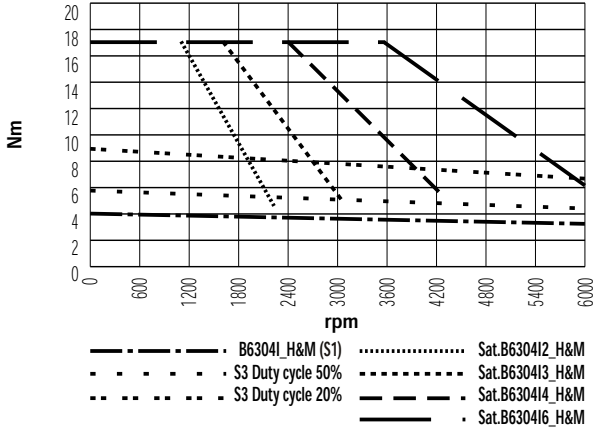


Fig. 41

B6306I\_H&M

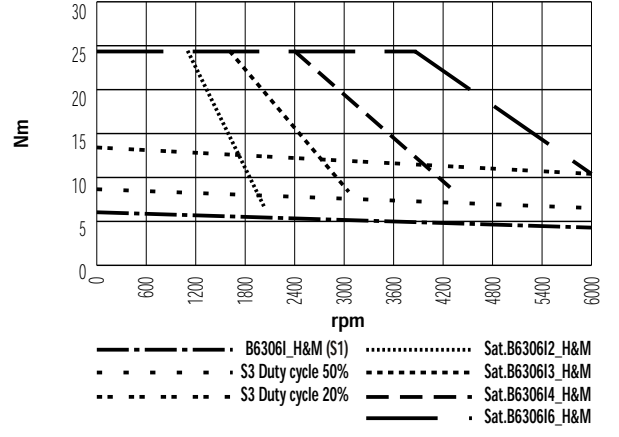


Fig. 42

B6308I\_H&M

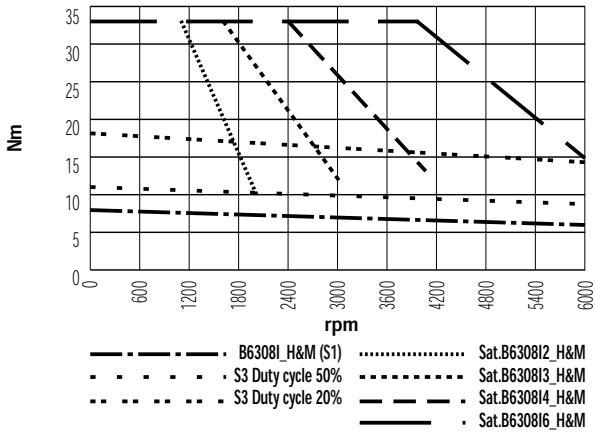


Fig. 43

B6310I\_H&M

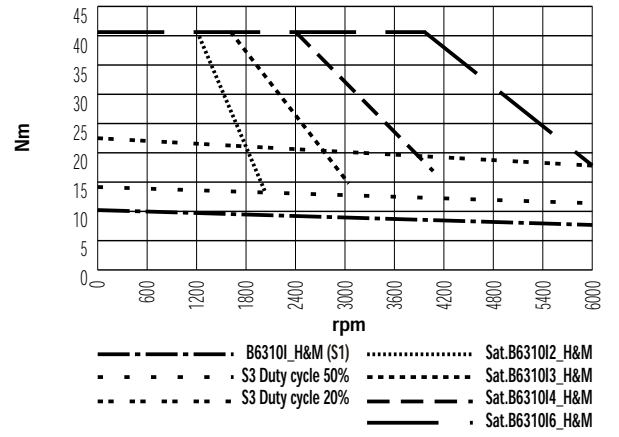


Fig. 44

## 8 poles: B63 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	$n$	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	$J$	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_W$	$L_W$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kg $m^2$	rad/sec $^2$	min	$^{\circ}$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/2</b>	4.0	2000	0.8	3.6	20	4000	6.20	32258	25	140	0.81	1.41	5.25	16.50	170	2.8	2.6	14.2
<b>S63 06/2</b>	6.0	2000	1.1	5.4	30	4000	8.01	37453	30	140	0.81	1.41	2.93	11.25	170	4.3	3.8	21.3
<b>S63 08/2</b>	8.0	2000	1.5	7.2	40	4000	10.00	40000	30	140	0.81	1.41	1.88	7.50	170	5.7	5.1	28.4
<b>S63 10/2</b>	10.0	2000	1.9	9.0	50	4000	11.90	42017	30	140	0.81	1.41	1.38	6.49	170	7.1	6.4	35.5
<b>3000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/3</b>	4.0	3000	1.1	3.6	20	4000	6.20	32258	25	140	0.54	0.94	2.33	7.33	170	4.3	3.8	21.3
<b>S63 06/3</b>	6.0	3000	1.7	5.4	30	4000	8.01	37453	30	140	0.54	0.94	1.30	5.00	170	6.4	5.7	31.9
<b>S63 08/3</b>	8.0	3000	2.3	7.2	40	4000	10.00	40000	30	140	0.54	0.94	0.84	3.33	170	8.5	7.7	42.6
<b>S63 10/3</b>	10.0	3000	2.8	9.0	50	4000	11.90	42017	30	140	0.54	0.94	0.61	2.88	170	10.6	9.6	53.2
<b>4000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/4</b>	4.0	4000	1.3	3.2	20	6000	6.20	32258	25	140	0.41	0.71	1.31	4.13	170	5.7	4.5	28.4
<b>S63 06/4</b>	6.0	4000	2.0	4.8	30	6000	8.01	37453	30	140	0.41	0.71	0.73	2.81	170	8.5	6.8	42.6
<b>S63 08/4</b>	8.0	4000	2.7	6.4	40	6000	10.00	40000	30	140	0.41	0.71	0.47	1.88	170	11.3	9.1	56.7
<b>S63 10/4</b>	10.0	4000	3.4	8.0	50	6000	11.90	42017	30	140	0.41	0.71	0.35	1.62	170	14.2	11.3	70.9

Tab. 43

## 8 poles: B63 voltage H(400 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA					Stall current	Rated current	Peak current
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed			
	$M_0$	$n$	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	$J$	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_W$	$L_W$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kg $m^2$	rad/sec $^2$	min	$^{\circ}$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/2</b>	4.0	2000	0.75	3.6	20	4000	6.20	32258	25	140	1.41	2.45	15.75	49.50	296	1.6	1.5	8.2
<b>S63 06/2</b>	6.0	2000	1.13	5.4	30	4000	8.01	37453	30	140	1.41	2.45	8.78	33.75	296	2.5	2.2	12.3
<b>S63 08/2</b>	8.0	2000	1.51	7.2	40	4000	10.00	40000	30	140	1.41	2.45	5.65	22.50	296	3.3	2.9	16.4
<b>S63 10/2</b>	10.0	2000	1.88	9.0	50	4000	11.90	42017	30	140	1.41	2.45	4.14	19.46	296	4.1	3.7	20.4
<b>3000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/3</b>	4.0	3000	1.13	3.6	20	4000	6.20	32258	25	140	0.94	1.63	7.00	22.00	296	2.5	2.2	12.3
<b>S63 06/3</b>	6.0	3000	1.70	5.4	30	4000	8.01	37453	30	140	0.94	1.63	3.90	15.00	296	3.7	3.3	18.4
<b>S63 08/3</b>	8.0	3000	2.26	7.2	40	4000	10.00	40000	30	140	0.94	1.63	2.51	10.00	296	4.9	4.4	24.5
<b>S63 10/3</b>	10.0	3000	2.83	9.0	50	4000	11.90	42017	30	140	0.94	1.63	1.84	8.65	296	6.1	5.5	30.7
<b>4000 min<math>^{-1}</math> (8 poles)</b>																		
<b>S63 04/4</b>	4.0	4000	1.34	3.2	20	6000	6.20	32258	25	140	0.71	1.22	3.94	12.38	296	3.3	2.6	16.4
<b>S63 06/4</b>	6.0	4000	2.01	4.8	30	6000	8.01	37453	30	140	0.71	1.22	2.19	8.40	296	4.9	3.9	24.5
<b>S63 08/4</b>	8.0	4000	2.68	6.4	40	6000	10.00	40000	30	140	0.71	1.22	1.41	5.63	296	6.5	5.2	32.7
<b>S63 10/4</b>	10.0	4000	3.35	8.0	50	6000	11.90	42017	30	140	0.71	1.22	1.04	4.87	296	8.2	6.5	40.9

Tab. 44

B6304P\_H&M

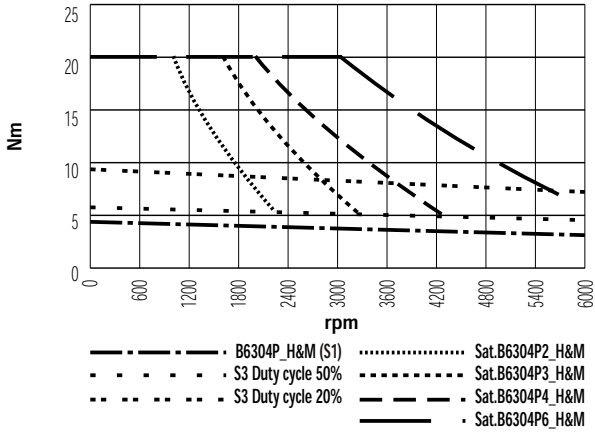


Fig. 49

B6306P\_H&M

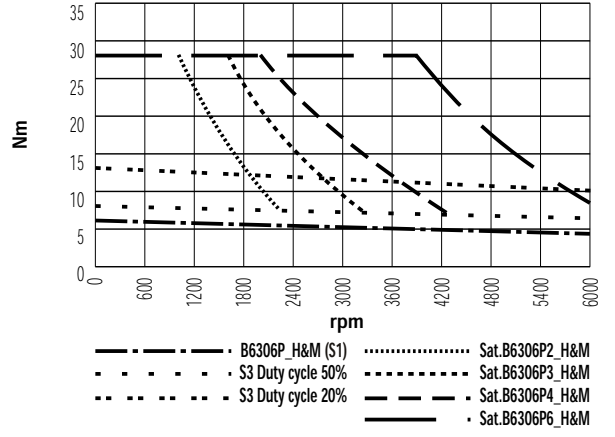


Fig. 50

B6308P\_H&M

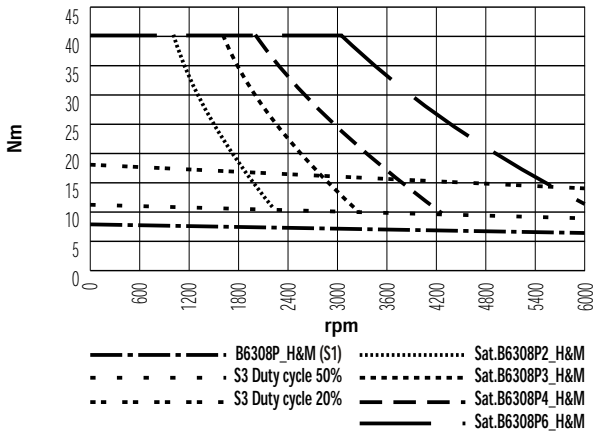


Fig. 51

B6310P\_H&M

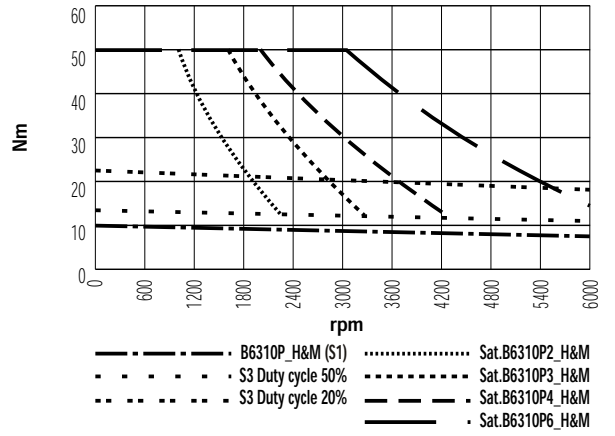


Fig. 52

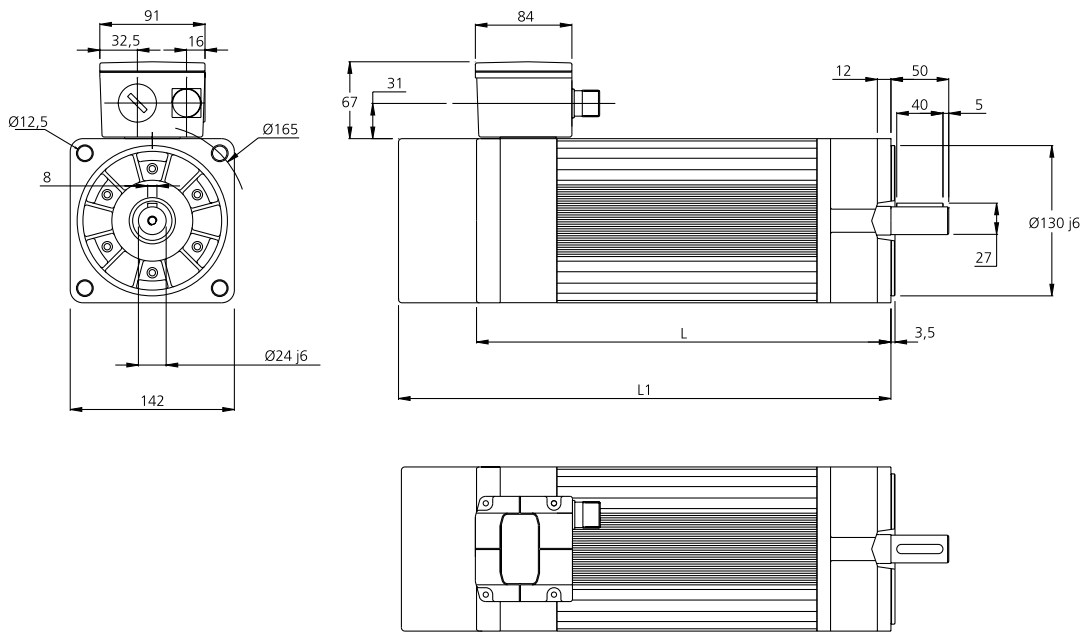


## Servomotors

## SERIES 71

6 poles: B71 voltage H(400 Volt) and M(230 Volt)

8 poles: B71 voltage H(400 Volt) and M(230 Volt)



Dwg. 19

L = Motor length with resolver as transducer (standard)

L1 = Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B71-08	7.8 / 8*	234	256	12.0	264	286	13.9
B71-12	11.7 / 12*	259	281	14.1	288	311	16.0
B71-16	15.6 / 16*	284	306	16.4	314	336	18.3
B71-20	19.5 / 20*	309	331	18.6	339	361	20.5
B71-24	23.4 / 26*	334	356	20.8	364	386	22.7
B71-28	27.3 / 28*	369	380	23.0	389	411	24.9

\* Torque regarding trapezoidal and sinusoidal motors 8 poles

Tab. 45

## B71 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
						$n_{max}$ rpm	J - *J $10^{-4}$ Kg $m^2$	$a_{pk}$ - * $a_{pk}$ rad/sec $^2$	$T_{th}$ min	$\vartheta_{max}$ $^{\circ}$ C	$k_e$ Vs	$k_t$ Nm/A	$R_w$ $\Omega$	$L_w$ mH	$E_n$ Vrms	$I_0$ Arms	$I_n$ Arms	$I_{pk}$ Arms
<b>2000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/2	7.8	2000	1.5	7.4	30	4000	15.75 - 32.26	19048 - 9299	40	140	0.82	1.41	3.45	19.77	171	5.5	5.2	21.2
S71 12/2	11.7	2000	2.3	11.0	48	4000	23.60 - 39.91	20339 - 12027	45	140	0.82	1.41	1.91	13.21	171	8.3	7.8	34.0
S71 16/2	15.6	2000	3.1	14.7	60	4000	31.53 - 47.55	19029 - 12618	45	140	0.82	1.41	0.96	8.08	171	11.0	10.4	42.5
S71 20/2	19.5	2000	3.9	18.4	80	4000	38.44 - 55.20	20812 - 14493	50	140	0.82	1.41	0.79	6.84	171	13.8	13.0	56.6
S71 24/2	23.4	2000	4.6	22.0	92	4000	45.35 - 62.84	20287 - 14640	55	140	0.82	1.41	0.61	5.25	171	16.6	15.6	65.1
S71 28/2	27.3	2000	5.3	25.5	108	4000	52.26 - 70.48	20666 - 15323	60	140	0.82	1.41	0.41	3.55	171	19.3	18.0	76.4
<b>3000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/3	7.8	3000	2.2	7.0	30	4000	15.75 - 32.26	19048 - 9299	40	140	0.54	0.94	1.55	8.56	171	8.3	7.4	31.8
S71 12/3	11.7	3000	3.3	10.5	48	4000	23.60 - 39.91	20339 - 12027	45	140	0.54	0.94	0.87	6.11	171	12.4	11.1	50.9
S71 16/3	15.6	3000	4.4	14.1	60	4000	31.53 - 47.55	19029 - 12618	45	140	0.54	0.94	0.43	3.59	171	16.6	15.0	63.7
S71 20/3	19.5	3000	5.5	17.6	80	4000	38.44 - 55.20	20812 - 14493	50	140	0.54	0.94	0.35	3.04	171	20.7	18.7	84.9
S71 24/3	23.4	3000	6.6	21.1	92	4000	45.35 - 62.84	20287 - 14640	55	140	0.54	0.94	0.27	2.33	171	24.8	22.4	97.6
S71 28/3	27.3	3000	7.728.3	24.6	108	4000	52.26 - 70.48	20666 - 15323	60	140	0.54	0.94	0.20	1.74	171	29.0	26.1	114.6
<b>4000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/4	7.8	4000	2.8	6.8	30	4000	15.75 - 32.26	19048 - 9299	40	140	0.41	0.71	0.92	4.94	171	11.0	9.6	42.5
S71 12/4	11.7	4000	4.2	10.1	48	4000	23.60 - 39.91	20339 - 12027	45	140	0.41	0.71	0.53	3.57	171	16.6	14.3	67.9
S71 16/4	15.6	4000	5.7	13.5	60	4000	31.53 - 47.55	19029 - 12618	45	140	0.41	0.71	0.30	2.49	171	22.1	19.1	84.9
S71 20/4	19.5	4000	7.0	16.8	80	4000	38.44 - 55.20	20812 - 14493	50	140	0.41	0.71	0.19	1.63	171	27.6	23.8	113.2
S71 24/4	23.4	4000	8.4	20.1	92	4000	45.35 - 62.84	20287 - 14640	55	140	0.41	0.71	0.17	1.46	171	33.1	28.4	130.2
S71 28/4	27.3	4000	9.8	23.5	108	4000	52.26 - 70.48	20666 - 15323	60	140	0.41	0.71	0.12	1.01	171	38.6	33.3	152.8

Note: J standard inertia, \*J higher inertia

Tab. 46

## B71 voltage H(400 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_n$ kW	Rated torque $M_n$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed $n_{max}$ rpm	Moment of inertia $J - *J$ $10^{-4}$ Kg $m^2$	Peak torque acceleration $a_{pk} - *a_{pk}$ rad/sec $^2$	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ $^{\circ}C$	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_w$ $\Omega$	Winding line to line inductance $L_w$ mH	B.E.M.F. at rated speed $E_n$ Vrms	Stall current $I_0$ Arms	Rated current $I_n$ Arms	Peak current $I_{pk}$ Arms
<b>2000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/2	7.8	2000	1.5	7.4	30	4000	15.75 - 32.26	19048 - 9299	40	140	1.41	2.45	9.18	53.96	296	3.2	3.0	12.3
S71 12/2	11.7	2000	2.3	11.0	48	4000	23.60 - 39.91	20339 - 12027	45	140	1.41	2.45	5.16	34.02	296	4.8	4.5	19.6
S71 16/2	15.6	2000	3.1	14.7	60	4000	31.53 - 47.55	19029 - 12618	45	140	1.41	2.45	3.35	25.23	296	6.4	6.0	24.5
S71 20/2	19.5	2000	3.9	18.4	80	4000	38.44 - 55.20	20812 - 14493	50	140	1.41	2.45	2.45	20.67	296	8.0	7.5	32.7
S71 24/2	23.4	2000	4.6	22.0	92	4000	45.35 - 62.84	20287 - 14640	55	140	1.41	2.45	1.43	12.16	296	9.6	9.0	37.6
S71 28/2	27.3	2000	5.3	25.5	108	4000	52.26 - 70.48	20666 - 15323	60	140	1.41	2.45	1.12	9.19	296	11.2	10.4	44.1
<b>3000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/3	7.8	3000	2.2	7.0	30	4000	15.75 - 32.26	19048 - 9299	40	140	0.94	1.63	4.13	23.98	296	4.8	4.29	18.38
S71 12/3	11.7	3000	3.3	10.5	48	4000	23.60 - 39.91	20339 - 12027	45	140	0.94	1.63	2.29	15.12	296	7.2	6.4	29.4
S71 16/3	15.6	3000	4.4	14.1	60	4000	31.53 - 47.55	19029 - 12618	45	140	0.94	1.63	1.49	11.58	296	9.6	8.6	36.8
S71 20/3	19.5	3000	5.5	17.6	80	4000	38.44 - 55.20	20812 - 14493	50	140	0.94	1.63	1.13	9.56	296	11.9	10.8	49.0
S71 24/3	23.4	3000	6.6	21.1	92	4000	45.35 - 62.84	20287 - 14640	55	140	0.94	1.63	0.65	5.40	296	14.3	12.9	56.4
S71 28/3	27.3	3000	7.7	24.6	108	4000	52.26 - 70.48	20666 - 15323	60	140	0.94	1.63	0.50	4.08	296	16.7	15.1	66.2
<b>4000 min<math>^{-1}</math> (6 poles)</b>																		
S71 08/4	7.8	4000	2.8	6.8	30	4000	15.75 - 32.26	19048 - 9299	40	140	0.71	1.22	2.27	13.06	296	6.4	5.6	24.5
S71 12/4	11.7	4000	4.2	10.1	48	4000	23.60 - 39.91	20339 - 12027	45	140	0.71	1.22	1.30	8.51	296	9.6	8.3	39.2
S71 16/4	15.6	4000	5.7	13.5	60	4000	31.53 - 47.55	19029 - 12618	45	140	0.71	1.22	0.88	6.72	296	12.7	11.0	49.0
S71 20/4	19.5	4000	7.0	16.8	80	4000	38.44 - 55.20	20812 - 14493	50	140	0.71	1.22	0.58	4.76	296	15.9	13.7	65.4
S71 24/4	23.4	4000	8.4	20.1	92	4000	45.35 - 62.84	20287 - 14640	55	140	0.71	1.22	0.36	2.94	296	19.1	16.4	75.2
S71 28/4	27.3	4000	9.8	23.5	108	4000	52.26 - 70.48	20666 - 15323	60	140	0.71	1.22	0.29	2.30	296	22.3	19.2	88.2

Note: J standard inertia, \*J higher inertia

Tab. 47

B7108I\_H&M

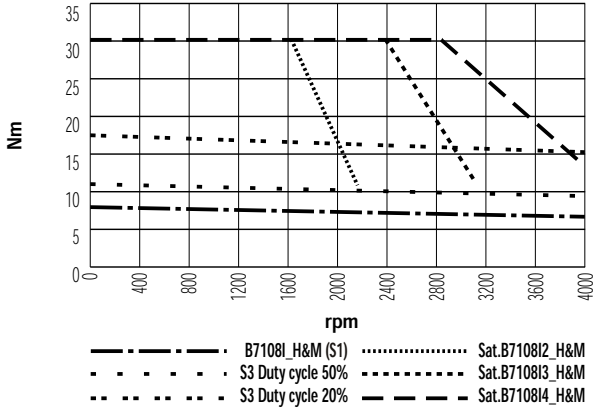


Fig. 53

B7112I\_H&M

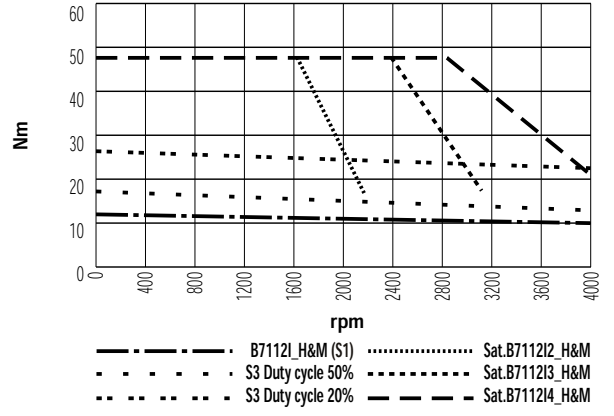


Fig. 54

B7116I\_H&M

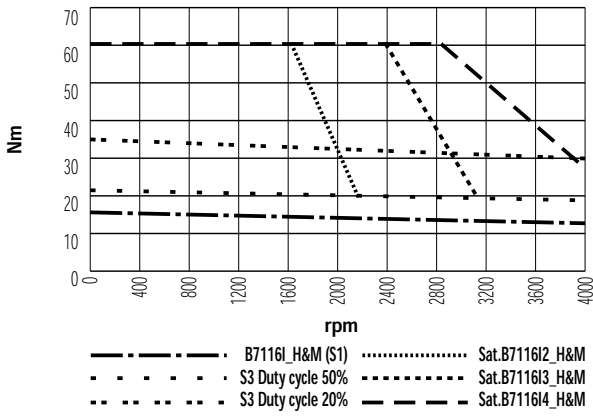


Fig. 55

B7120I\_H&M

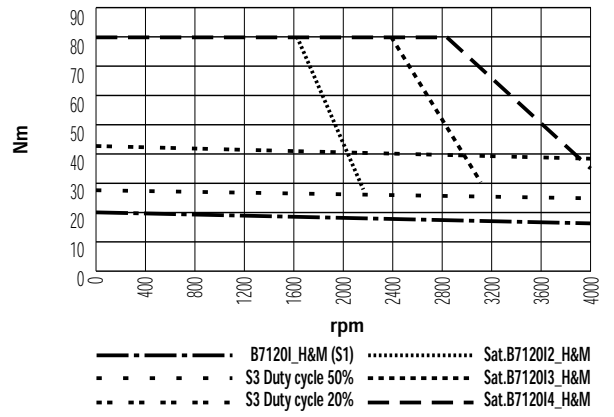


Fig. 56

B7124I\_H&M

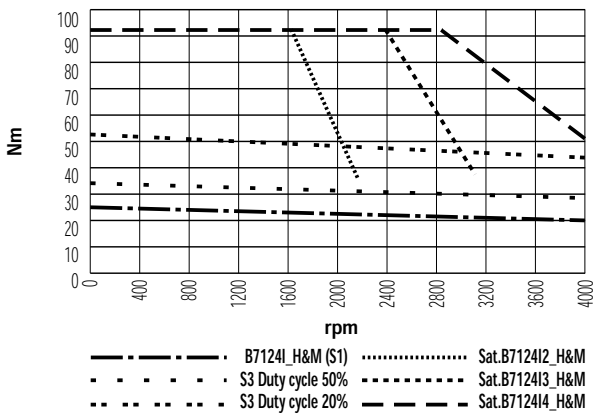


Fig. 57

B7128I\_H&M

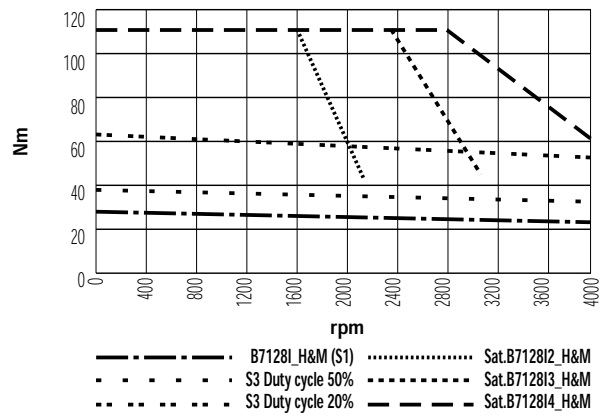


Fig. 58

## 8 poles: B71 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	n	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	J	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_W$	$L_W$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kg $m^2$	rad/sec $^2$	min	$^{\circ}$ C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<math>^{-1}</math> (8 poles)</b>																		
S71 08/2	8.0	2000	1.5	7.0	40.0	4000	12.70	31496	40	140	0.81	1.41	2.70	15.53	170	5.7	5.0	28.4
S71 12/2	12.0	2000	2.2	10.5	60.0	4000	17.40	34483	45	140	0.81	1.41	1.44	10.37	170	8.5	7.4	42.6
S71 16/2	16.0	2000	2.9	14.0	80.0	4000	22.10	36199	45	140	0.81	1.41	0.92	7.61	170	11.3	9.9	56.7
S71 20/2	20.0	2000	3.7	17.5	100.0	4000	26.80	37313	50	140	0.81	1.41	0.70	6.28	170	14.2	12.4	70.9
S71 24/2	24.0	2000	4.4	21.0	120.0	4000	31.50	38095	50	140	0.81	1.41	0.59	5.23	170	17.0	14.9	85.1
S71 28/2	28.0	2000	5.1	24.5	140.0	4000	36.20	38674	55	140	0.81	1.41	0.50	4.48	170	19.9	17.4	99.3
<b>3000 min<math>^{-1}</math> (8 poles)</b>																		
S71 08/3	8.0	3000	2.2	7.0	40.0	4000	12.70	31496	40	140	0.54	0.94	1.20	6.90	170	8.5	7.4	42.6
S71 12/3	12.0	3000	3.3	10.5	60.0	4000	17.40	34483	45	140	0.54	0.94	0.64	4.61	170	12.8	11.2	63.8
S71 16/3	16.0	3000	4.4	14.0	80.0	4000	22.10	36199	45	140	0.54	0.94	0.41	3.38	170	17.0	14.9	85.1
S71 20/3	20.0	3000	5.5	17.5	100.0	4000	26.80	37313	50	140	0.54	0.94	0.31	2.79	170	21.3	18.6	106.4
S71 24/3	24.0	3000	6.6	21.0	120.0	4000	31.50	38095	50	140	0.54	0.94	0.26	2.32	170	25.5	22.3	127.7
S71 28/3	28.0	3000	7.7	24.5	140.0	4000	36.20	38674	55	140	0.54	0.94	0.22	1.99	170	29.8	26.1	148.9
<b>4000 min<math>^{-1}</math> (8 poles)</b>																		
S71 08/4	8.0	4000	2.5	6.0	40.0	4000	12.70	31496	40	140	0.41	0.71	0.68	3.88	170	11.3	8.5	56.7
S71 12/4	12.0	4000	3.8	9.0	60.0	4000	17.40	34483	45	140	0.41	0.71	0.36	2.59	170	17.0	12.8	85.1
S71 16/4	16.0	4000	5.0	12.0	80.0	4000	22.10	36199	45	140	0.41	0.71	0.23	1.90	170	22.7	17.0	113.5
S71 20/4	20.0	4000	6.3	15.0	100.0	4000	26.80	37313	50	140	0.41	0.71	0.18	1.57	170	28.4	21.3	141.8
S71 24/4	24.0	4000	7.5	18.0	120.0	4000	31.50	38095	50	140	0.41	0.71	0.15	1.31	170	34.0	25.5	170.2
S71 28/4	28.0	4000	8.8	21.0	140.0	4000	36.20	38674	55	140	0.41	0.71	0.13	1.12	170	39.7	29.8	198.6

Tab. 50

## 8 poles: B71 voltage H(400 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA					Stall current	Rated current	Peak current
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed			
	$M_0$	$n$	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	$J$	$a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_W$	$L_W$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm	$10^{-4}$ Kgm <sup>2</sup>	rad/sec <sup>2</sup>	min	°C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>2000 min<sup>-1</sup> (8 poles)</b>																		
S71 08/2	8.0	2000	1.5	7.0	40	4000	12.70	31496	40	140	1.41	2.45	8.10	46.58	296	3.3	2.9	16.4
S71 12/2	12.0	2000	2.2	10.5	60	4000	17.40	34483	45	140	1.41	2.45	4.34	31.14	296	4.9	4.3	24.5
S71 16/2	16.0	2000	2.9	14.0	80	4000	22.10	36199	45	140	1.41	2.45	2.79	22.86	296	6.5	5.7	32.7
S71 20/2	20.0	2000	3.7	17.5	100	4000	26.80	37313	50	140	1.41	2.45	2.12	18.81	296	8.2	7.2	40.9
S71 24/2	24.0	2000	4.4	21.0	120	4000	31.50	38095	50	140	1.41	2.45	1.76	15.68	296	9.8	8.6	49.1
S71 28/2	28.0	2000	5.1	24.5	140	4000	36.20	38674	55	140	1.41	2.45	1.51	13.43	296	11.5	10.0	57.3
<b>3000 min<sup>-1</sup> (8 poles)</b>																		
S71 08/3	8.0	3000	2.2	7.0	40	4000	12.70	31496	40	140	0.94	1.63	3.60	20.70	296	4.9	4.3	24.5
S71 12/3	12.0	3000	3.3	10.5	60	4000	17.40	34483	45	140	0.94	1.63	1.94	13.84	296	7.4	6.4	36.8
S71 16/3	16.0	3000	4.4	14.0	80	4000	22.10	36199	45	140	0.94	1.63	1.24	10.16	296	9.8	8.6	49.1
S71 20/3	20.0	3000	5.5	17.5	100	4000	26.80	37313	50	140	0.94	1.63	0.94	8.36	296	12.3	10.7	61.3
S71 24/3	24.0	3000	6.6	21.0	120	4000	31.50	38095	50	140	0.94	1.63	0.78	6.97	296	14.7	12.9	73.6
S71 28/3	28.0	3000	7.7	24.5	140	4000	36.20	38674	55	140	0.9	1.63	0.67	5.97	296	17.2	15.0	85.9
<b>4000 min<sup>-1</sup> (8 poles)</b>																		
S71 08/4	8.0	4000	2.5	6.0	40	4000	12.70	31496	40	140	0.71	1.22	2.03	11.64	296	6.5	4.9	32.7
S71 12/4	12.0	4000	3.8	9.0	60	4000	17.40	34483	45	140	0.71	1.22	1.09	7.79	296	9.8	7.4	49.1
S71 16/4	16.0	4000	5.0	12.0	80	4000	22.10	36199	45	140	0.71	1.22	0.70	5.72	296	13.1	9.8	65.4
S71 20/4	20.0	4000	6.3	15.0	100	4000	26.80	37313	50	140	0.71	1.22	0.53	4.70	296	16.4	12.3	81.8
S71 24/4	24.0	4000	7.5	18.0	120	4000	31.50	38095	50	140	0.71	1.22	0.44	3.92	296	19.6	14.7	98.2
S71 28/4	28.0	4000	8.8	21.0	140	4000	36.20	38674	55	140	0.71	1.22	0.38	3.36	296	22.9	17.2	114.5

Tab. 51

B7108P\_H&M

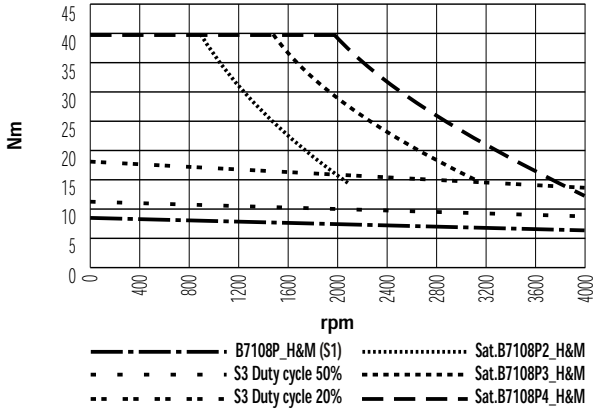


Fig. 65

B7112P\_H&M

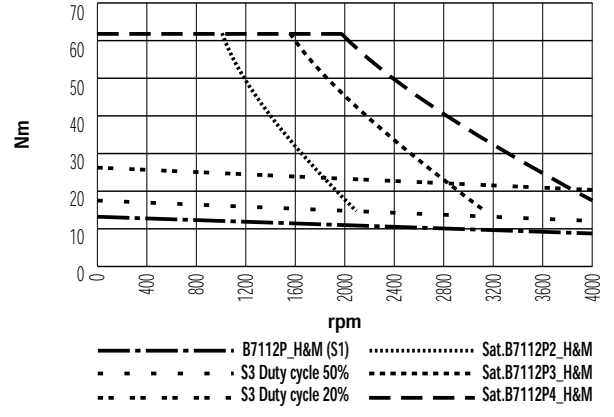


Fig. 66

B7116P\_H&M

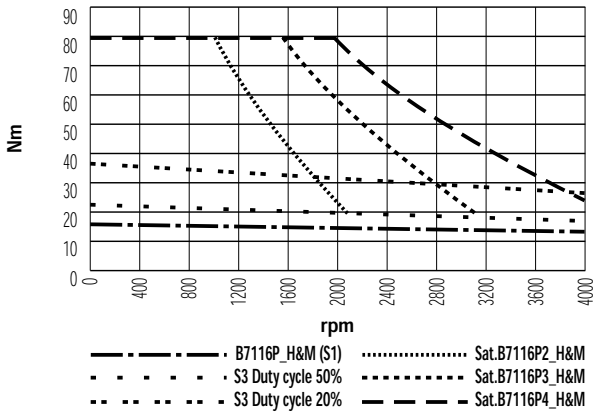


Fig. 67

B7120P\_H&M

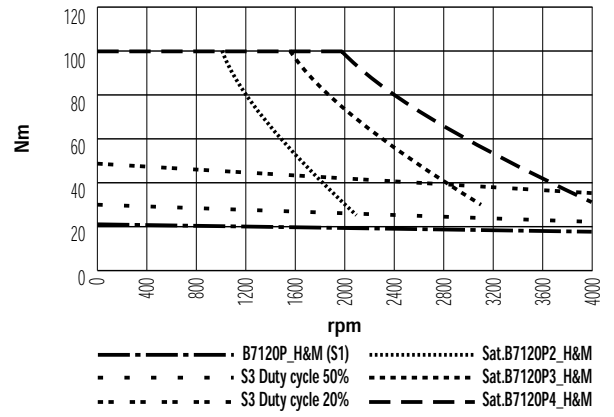


Fig. 68

B7124P\_H&M

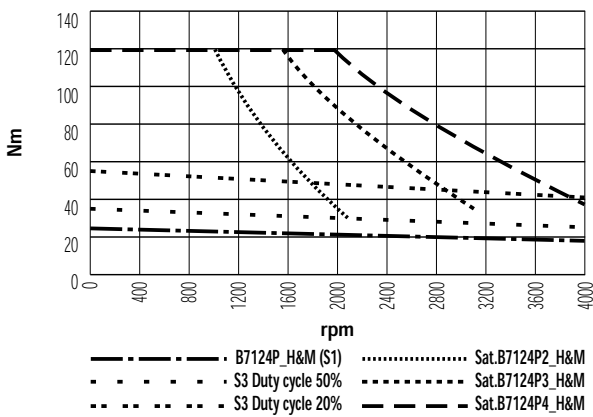


Fig. 69

B7128P\_H&M

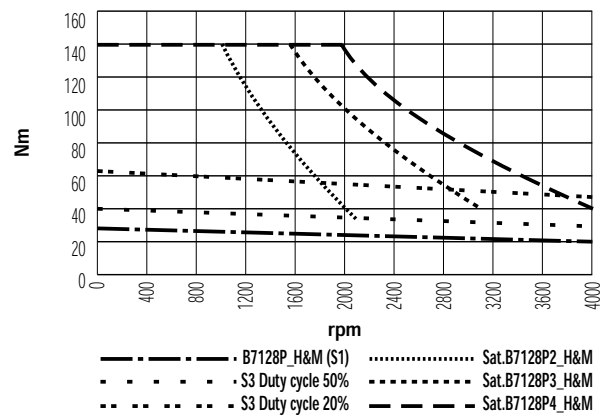


Fig. 70

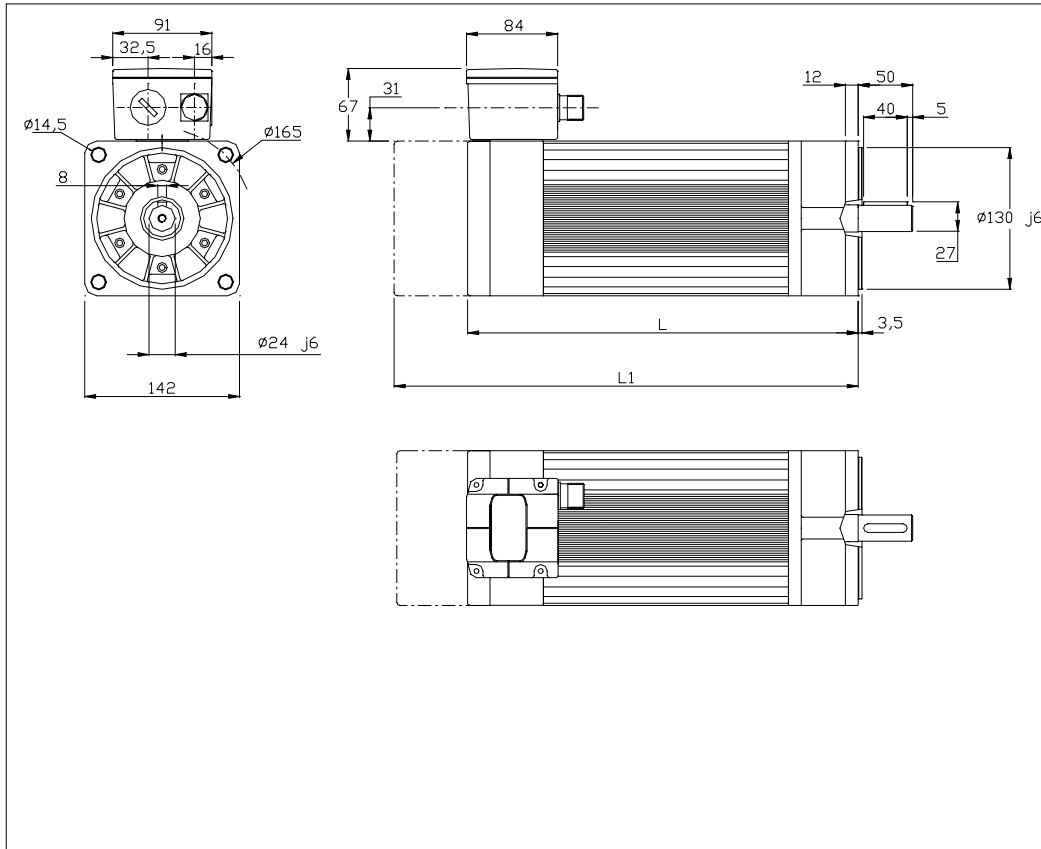
## Technical data and curves

### Sinusoidal Motors

### SERIE 71

Sinusoidal:B56 8 Poles Voltage M (230 Volt)

Sinusoidal:B56 8 Poles Voltage H (400 Volt)



L1 = Motor length with encoder as transducer

L = Motor length with resolver as transducer

Type	Nm	L no brake mm	L1 no brake mm	Weight no brake (KG)	L with brake mm	L1 with brake mm	Weight with brake (KG)
<b>B71-07</b>	7,0	234	256	12,0	264	286	13,9
<b>B71-11</b>	11,0	259	281	14,1	288	311	16,0
<b>B71-15</b>	15,0	284	306	16,4	314	336	18,3
<b>B71-19</b>	19,0	309	331	18,6	339	361	20,5
<b>B71-23</b>	23,0	334	356	20,8	364	386	22,7

All dimensional and electrical data could be changed without prior notice

All data have to be considered as preliminary data.

The illustrations are not binding.



## B71 Sinusoidal 8 Poles low inertia motors: Voltage M (230 Volt)

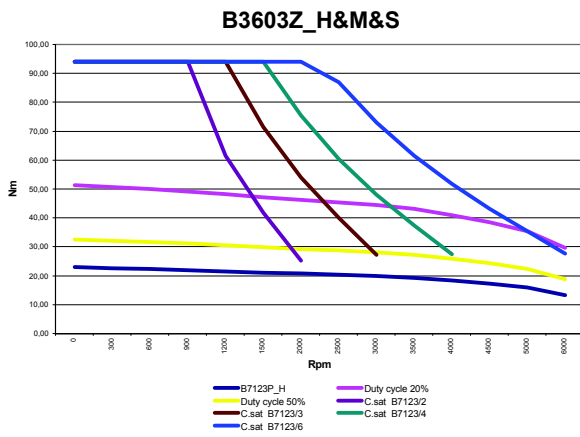
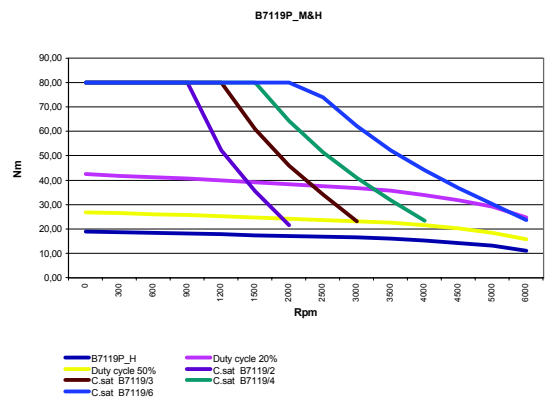
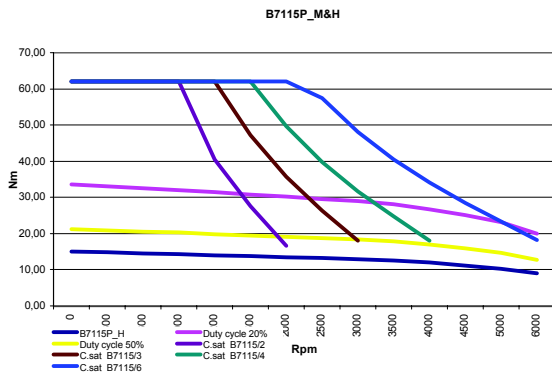
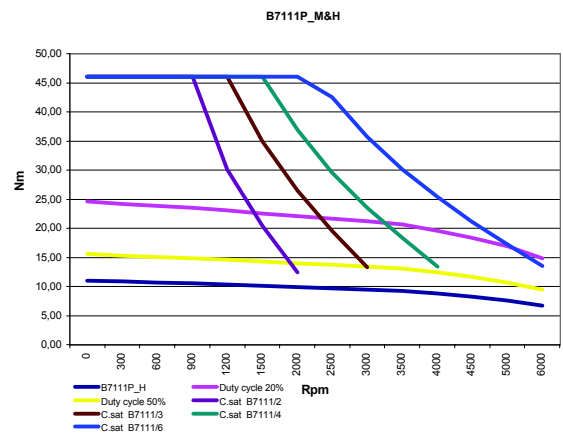
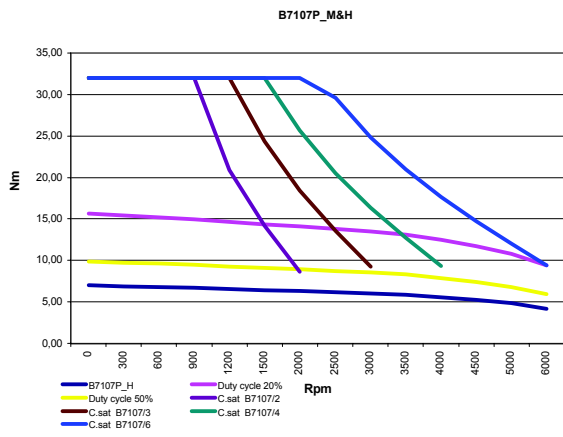
Motor type	SatiI torque (D=100°C) M0 Nm	Rated speed n 1/min	Output at rated speed Pn W	Rated torque Mn Nm	Peak torque Mpk Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA								
						Maximum speed nmax rpm	Moment of inertia J x10-4 Kg·m²	Peak torque acceleration apk rad/sec²	Thermal time constant Tth min	Thermal protection threshold Tjmax °C	Voltage constant ke Vs	Torque constant kt Nm/A	Winding line to line resistance (20°C) Rw Ohm	Winding line to line inductance Lw mH	BEMF at rated speed En V	Stall current I0 A	Rated current In A	Peak current Ipk A	
<b>2000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																			
S71	07/2	7,0	2000	1263	6,03	32,0	6000	6,20	51613	32	140	0,82	1,41	2,7	29,8	171	4,95	4,27	22,64
S71	11/2	11,0	2000	2000	9,55	46,0	6000	8,10	56790	35	140	0,82	1,41	1,5	16,2	171	7,78	6,76	32,55
S71	15/2	15,0	2000	2694	12,86	62,0	6000	10,00	62000	38	140	0,82	1,41	0,9	10,5	171	10,61	9,10	43,87
S71	19/2	19,0	2000	3326	15,88	80,0	6000	11,90	67227	40	140	0,82	1,41	0,7	7,5	171	13,44	11,24	56,61
S71	23/2	23,0	2000	3999	19,10	94,0	6000	13,80	68116	40	140	0,82	1,41	0,5	5,7	171	16,27	13,51	66,51
<b>3000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																			
S71	07/2	7,0	3000	1885	6,00	32,0	6000	6,20	51613	32	140	0,54	0,94	1,1	12,8	171	7,43	6,37	33,96
S71	11/2	11,0	3000	2985	9,50	46,0	6000	8,10	56790	35	140	0,54	0,94	0,6	7,0	171	11,67	10,08	48,82
S71	15/2	15,0	3000	4021	12,80	62,0	6000	10,00	62000	38	140	0,54	0,94	0,4	4,5	171	15,92	13,59	65,80
S71	19/2	19,0	3000	4964	15,80	80,0	6000	11,90	67227	40	140	0,54	0,94	0,3	3,2	171	20,17	16,77	84,91
S71	23/2	23,0	3000	5969	19,00	94,0	6000	13,80	68116	40	140	0,54	0,94	0,2	2,5	171	24,41	20,17	99,77
<b>4000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																			
S71	07/4	7,0	4000	2234	5,33	32,0	6000	6,20	51613	32	140	0,41	0,71	0,7	7,4	171	9,91	7,55	45,28
S71	11/4	11,0	4000	3537	8,44	46,0	6000	8,10	56790	35	140	0,41	0,71	0,4	4,1	171	15,57	11,95	65,10
S71	15/4	15,0	4000	4766	11,38	62,0	6000	10,00	62000	38	140	0,41	0,71	0,2	2,6	171	21,23	16,10	87,74
S71	19/4	19,0	4000	5883	14,04	80,0	6000	11,90	67227	40	140	0,41	0,71	0,2	1,9	171	26,89	19,87	113,21
S71	23/4	23,0	4000	7074	16,89	94,0	6000	13,80	68116	40	140	0,41	0,71	0,1	1,4	171	32,55	23,90	133,02

All dimensional end electrical data could be changed without prior notice  
 All data have to be considered as preliminary data.  
 The illustrations are not binding.

## B71 Sinusoidal 8 Poles low inertia motors: Voltage H (400 Volt)

Motor type						PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA								
	Satl torque (Dt=100°C) M0 Nm	Rated speed n 1/min	Output at rated speed Pn W	Rated torque Mn Nm	Peak torque Mpk Nm	Maximum speed nmax rpm	Moment of Inertia J x10-4 Kg·m²	Peak torque acceleration apk rad/sec²	Thermal time constant Tth min	Thermal protection threshold Jmax °C	Voltage constant ke Vs	Torque constant kt Nm/A	Winding line to line resistance (20°C) Rw Ohm	Winding line to line inductance Lw mH	BEMF at rated speed En V	Stall current I0 A	Rated current In A	Peak current Ipk A	
	<b>2000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																		
S71	07/2	7,0	2000	1263	6,03	32,0	6000	6,20	51613	32	140	1,41	2,45	8,2	91,2	296	2,86	2,46	13,07
S71	11/2	11,0	2000	2000	9,55	46,0	6000	8,10	56790	35	140	1,41	2,45	4,4	49,6	296	4,49	3,90	18,79
S71	15/2	15,0	2000	2694	12,86	62,0	6000	10,00	62000	38	140	1,41	2,45	2,9	32,2	296	6,13	5,26	25,33
S71	19/2	19,0	2000	3326	15,88	80,0	6000	11,90	67227	40	140	1,41	2,45	2,1	23,1	296	7,76	6,49	32,68
S71	23/2	23,0	2000	3999	19,10	94,0	6000	13,80	68116	40	140	1,41	2,45	1,6	17,5	296	9,40	7,80	38,40
<b>3000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																			
S71	07/3	7,0	3000	1885	6,00	32,0	6000	6,20	51613	32	140	0,94	1,63	3,6	39,8	296	4,29	3,68	19,61
S71	11/3	11,0	3000	2985	9,50	46,0	6000	8,10	56790	35	140	0,94	1,63	1,9	21,7	296	6,74	5,82	28,19
S71	15/3	15,0	3000	4021	12,80	62,0	6000	10,00	62000	38	140	0,94	1,63	1,3	14,1	296	9,19	7,84	37,99
S71	19/3	19,0	3000	4964	15,80	80,0	6000	11,90	67227	40	140	0,94	1,63	0,9	10,1	296	11,64	9,68	49,02
S71	23/3	23,0	3000	5969	19,00	94,0	6000	13,80	68116	40	140	0,94	1,63	0,7	7,7	296	14,09	11,64	57,60
<b>4000 Min<sup>-1</sup> (8 poli) - connessione Y</b>																			
S71	07/4	7,0	4000	2234	5,33	32,0	6000	6,20	51613	32	140	0,71	1,22	2,0	22,8	296	5,72	4,36	26,14
S71	11/4	11,0	4000	3537	8,44	46,0	6000	8,10	56790	35	140	0,71	1,22	1,1	12,4	296	8,99	6,90	37,58
S71	15/4	15,0	4000	4766	11,38	62,0	6000	10,00	62000	38	140	0,71	1,22	0,7	8,1	296	12,26	9,30	50,66
S71	19/4	19,0	4000	5883	14,04	80,0	6000	11,90	67227	40	140	0,71	1,22	0,5	5,8	296	15,52	11,47	65,36
S71	23/4	23,0	4000	7074	16,89	94,0	6000	13,80	68116	40	140	0,71	1,22	0,4	4,4	296	18,79	13,80	76,80

All dimensional and electrical data could be changed without prior notice.  
All data have to be considered as preliminary data.  
The illustrations are not binding.



Tutti i dati tecnici, dimensioni, pesi indicati in questo catalogo sono soggetti a cambiamenti senza preavviso.

I presenti dati sono da intendersi PRELIMINARI.

Le illustrazioni non sono vincolanti

All dimensional end electrical data could be changed without prior notice

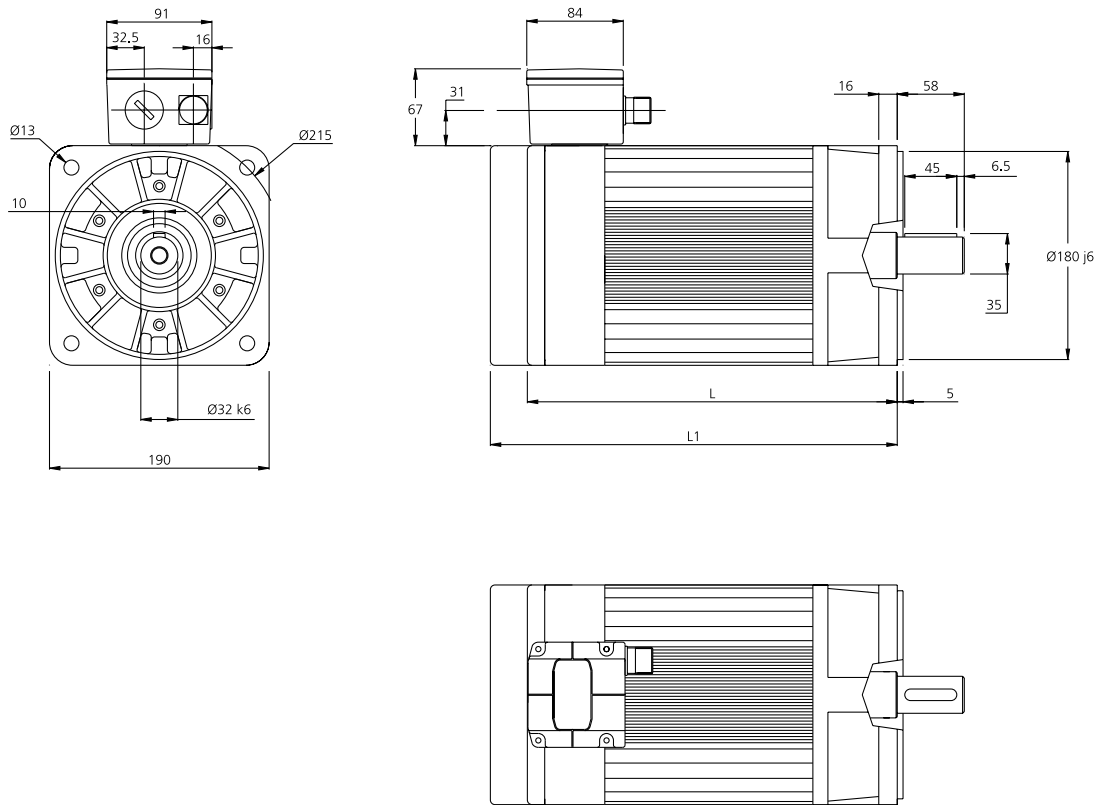
All data have to be considered as preliminary data.

The illustrations are not binding.

# Servomotors

# SERIES 100

6 poles: B100 voltage H(400 Volt) and M(230 Volt)



Dwg. 20

L = Motor length with resolver as transducer (standard)

L1= Motor length with encoder as transducer

Type	Nm	L mm without brake	L1 mm without brake	Weight (kg) without brake	L mm with brake	L1 mm with brake	Weight (kg) with brake
B100-24 / 27	24.0	301	328	26.0	365	392	32.6
B100-30 / 34	30.0	326	353	30.0	390	417	36.4
B100-43 / 48	43.0	376	403	38.0	440	467	44.6
B100-54 / 61	54.0	426	453	46.0	490	517	54.6
B100-66 / 75	66.0	476	503	54.0	540	567	62.6

Tab. 52

## B100 voltage M(230 Volt)

Motor type	Stall torque	Rated speed	Output at nominal speed	Rated torque	Peak torque	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA							
						Maximum speed	Moment of inertia	Peak torque acceleration	Thermal time constant	Thermal protection threshold	Voltage constant	Torque constant	Winding line to line resistance	Winding line to line inductance	B.E.M.F. at rated speed	Stall current	Rated current	Peak current
	$M_0$	$n$	$P_N$	$M_N$	$M_{pk}$	$n_{max}$	$J^*J$ $10^{-4} \text{ Kg m}^2$	$a_{pk}/a_{pk}$	$T_{th}$	$\vartheta_{max}$	$k_e$	$k_t$	$R_w$	$L_w$	$E_N$	$I_0$	$I_N$	$I_{pk}$
	Nm	rpm	kW	Nm	Nm	rpm		rad/sec <sup>2</sup>	min	°C	Vs	Nm/A	$\Omega$	mH	Vrms	Arms	Arms	Arms
<b>1200 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/1</b>	24.0	1200	2.8	22.4	89.0	3000	136.0	6544	55	140	1.36	2.35	1.02	12.51	170	10.2	9.5	37.9
<b>S100 30/1</b>	30.0	1200	3.5	28.0	99.0	3000	170.0	5824	60	140	1.36	2.35	0.79	10.09	170	12.8	11.9	42.1
<b>S100 43/1</b>	43.0	1200	5.2	41.2	139.0	3000	238.0	5840	65	140	1.36	2.35	0.48	6.56	170	18.3	17.5	59.1
<b>S100 54/1</b>	54.0	1200	6.3	50.4	163.0	3000	300.0	5433	70	140	1.36	2.35	0.33	4.85	170	23.0	21.4	69.4
<b>S100 66/1</b>	66.0	1200	7.7	61.6	199.0	3000	370.0	5378	70	140	1.36	2.35	0.26	4.06	170	28.1	26.2	84.7
<b>2000 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/2</b>	24.0	2000	4.6	21.8	89.0	3000	136.0	6544	55	140	0.81	1.41	0.38	4.63	170	17.0	15.5	63.1
<b>S100 30/2</b>	30.0	2000	5.7	27.3	99.0	3000	170.0	5824	60	140	0.81	1.41	0.27	3.38	170	21.3	19.4	70.2
<b>S100 43/2</b>	43.0	2000	8.2	39.1	139.0	3000	238.0	5840	65	140	0.81	1.41	0.18	2.48	170	30.5	27.7	98.6
<b>S100 54/2</b>	54.0	2000	10.3	49.1	163.0	3000	300.0	5433	70	140	0.81	1.41	0.13	1.95	170	38.3	34.8	115.6
<b>S100 66/2</b>	66.0	2000	12.6	60.1	199.0	3000	370.0	5378	70	140	0.81	1.41	0.10	1.46	170	46.8	42.6	141.1
<b>3000 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/3</b>	24.0	3000	6.6	20.9	89.0	4000	136.0	6544	55	140	0.54	0.94	0.19	2.36	170	25.5	22.2	94.7
<b>S100 30/3</b>	30.0	3000	8.2	26.2	99.0	4000	170.0	5824	60	140	0.54	0.94	0.14	1.79	170	31.9	27.9	105.3

Tab. 53

## B100 voltage H(400 Volt)

Motor type	Stall torque $M_0$ Nm	Rated speed $n$ rpm	Output at nominal speed $P_N$ kW	Rated torque $M_N$ Nm	Peak torque $M_{pk}$ Nm	PHYSICAL DATA			THERMAL DATA		ELECTRICAL DATA					Stall current $I_0$ Arms	Rated current $I_N$ Arms	Peak current $I_{pk}$ Arms
						Maximum speed $n_{max}$ rpm	Moment of inertia $J$ $10^{-4}$ Kgm <sup>2</sup>	Peak torque acceleration $a_{pk}$ rad/sec <sup>2</sup>	Thermal time constant $T_{th}$ min	Thermal protection threshold $\vartheta_{max}$ °C	Voltage constant $k_e$ Vs	Torque constant $k_t$ Nm/A	Winding line to line resistance $R_w$ $\Omega$	Winding line to line inductance $L_w$ mH	B.E.M.F. at rated speed $E_N$ Vrms			
<b>1200 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/1</b>	24.0	1200	2.8	22.4	89.0	3000	136.00	6544	55	140	2.36	4.08	3.03	37.83	296	5.9	5.5	21.8
<b>S100 30/1</b>	30.0	1200	3.5	28.0	99.0	3000	170.00	5824	60	140	2.36	4.08	2.26	28.62	296	7.3	6.9	24.2
<b>S100 43/1</b>	43.0	1200	5.2	41.2	139.0	3000	238.00	5840	65	140	2.36	4.08	1.44	20.53	296	10.5	10.1	34.0
<b>S100 54/1</b>	54.0	1200	6.3	50.4	163.0	3000	300.00	5433	70	140	2.36	4.08	1.06	15.72	296	13.2	12.3	39.9
<b>S100 66/1</b>	66.0	1200	7.7	61.6	199.0	3000	370.00	5378	70	140	2.36	4.08	0.85	13.15	296	16.2	15.1	48.7
<b>2000 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/2</b>	24.0	2000	4.6	21.8	89.0	3000	136.0	6544	55	140	1.41	2.45	1.10	13.62	296	9.8	8.9	36.3
<b>S100 30/2</b>	30.0	2000	5.7	27.3	99.0	3000	170.0	5824	60	140	1.41	2.45	0.89	11.18	296	12.2	11.1	40.4
<b>S100 43/2</b>	43.0	2000	8.2	39.1	139.0	3000	238.0	5840	65	140	1.41	2.45	0.55	7.60	296	17.6	16.0	56.7
<b>S100 54/2</b>	54.0	2000	10.3	49.1	163.0	3000	300.0	5433	70	140	1.41	2.45	0.39	5.87	296	22.0	20.0	66.5
<b>S100 66/2</b>	66.0	2000	12.6	60.1	199.0	3000	370.0	5378	70	140	1.41	2.45	0.31	4.73	296	26.9	24.5	81.2
<b>3000 min<sup>-1</sup> (6 poles)</b>																		
<b>S100 24/3</b>	24	3000	6.6	20.9	89	4000	136.0	6544	55	140	0.94	1.63	0.55	6.83	296	14.7	12.8	54.5
<b>S100 30/3</b>	30.0	3000	8.2	26.2	99	4000	170.0	5824	60	140	0.94	1.63	0.37	5.32	296	18.4	16.0	60.6

Tab. 54

B1024I\_H&M

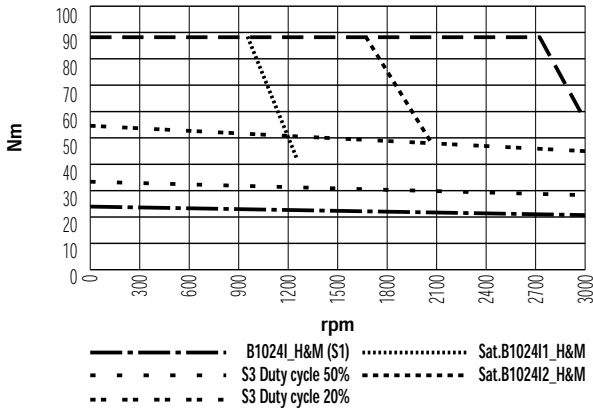


Fig. 71

B1030I\_H&M

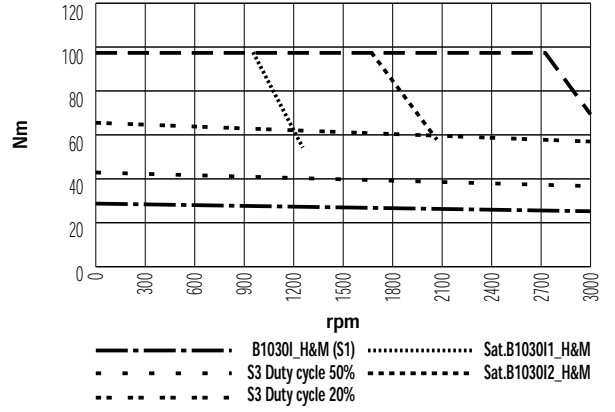


Fig. 72

B1043I\_H&M

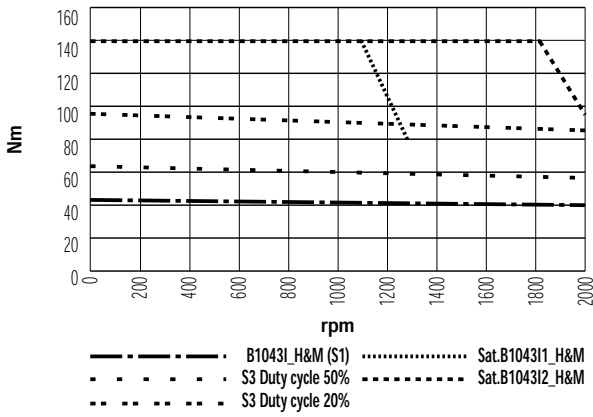


Fig. 73

B1054I\_H&M

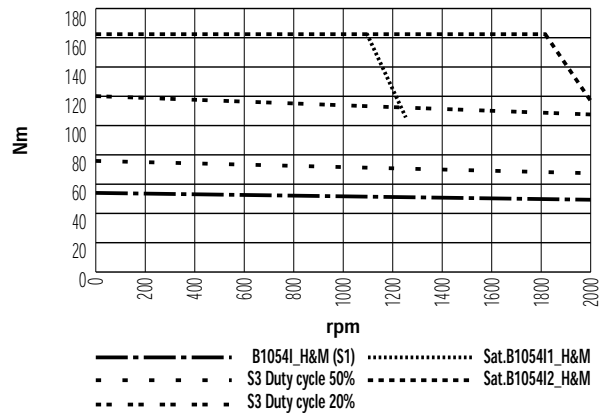


Fig. 74

B1066I\_H&M

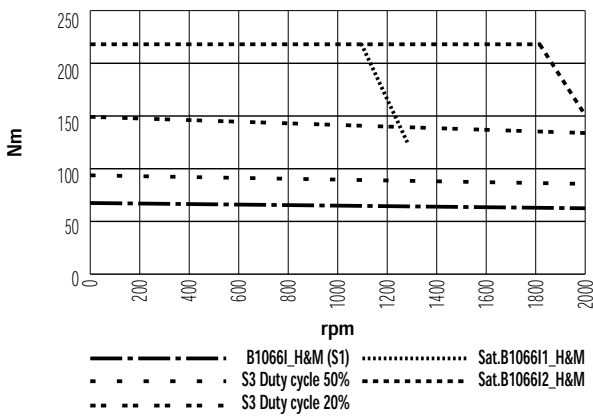


Fig. 75