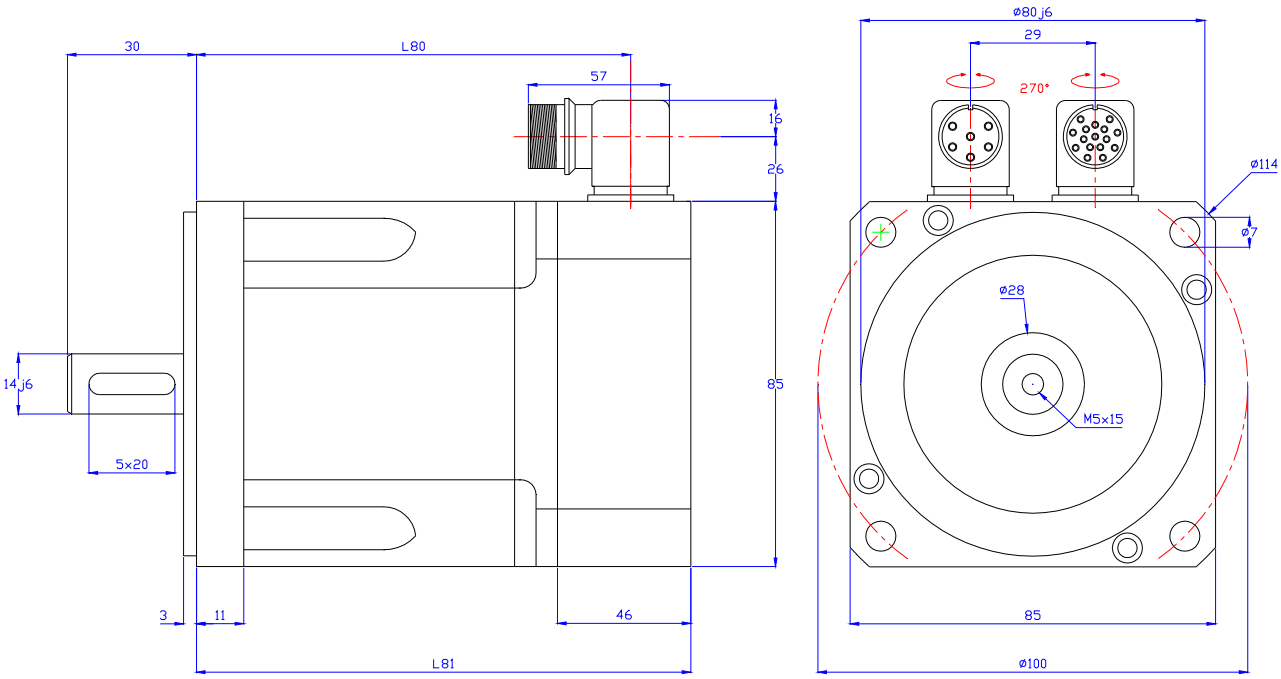
AC brushless Servomotors MISD5.3

Technical Data *Tab. 1*

Description / *Winding code*	*Symbol*	*Motor*	**MISD5.31**		**MISD5.32**		**MISD5.33**		**MISD5.34**	
		MU	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
Stall Torque	M_0	Nm	**1,5**		**2,9**		**4,2**		**5,3**	
Max Voltage	U_{MAX}	V	230	390	230	390	230	390	230	390
Stall Current	I_0	A	1,65	1,1	3,2	2	4,6	2,9	5,8	3,4
Nominal Current	I_N	A	1,4	0,9	2,7	1,7	3,8	2,4	4,6	2,7
Nominal Torque	M_N	Nm	1,3		2,4		3,3		4	
Nominal Power	P_N	W	400		750		1.000		1.200	
Nominal Speed	N_N	min^{-1}	3.000		3.000		3.000		3.000	
Maximal Speed	N_{MAX}	min^{-1}	4.000		4.000		4.000		4.000	
Peak Current	I_{MAX}	A	6,6	4	13	8	19	12	24	15
Voltage constant	K_E	V/Krpm	55	86	55	88	55	88	55	93
Torque constant	K_T	Nm/A	0,91	1,42	0,91	1,45	0,91	1,45	0,91	1,54
Rotor Inertia	J_R	Kg cm^2	0,92		1,72		2,53		3,33	
Resist. @ 20°C	R_{U-V}	ohm	9	23	3,4	8,3	1,9	5	1,4	4
Induct. @ 1 KHz	L_{U-V}	mH	16	35	7	18	4,5	12	3,5	11
Mass	m	Kg	2,4		3,5		4,6		5,7	

Drawing 8-pole execution, 85x85 mm *Pic. 2*



Dimension in mm *Tab. 2*

Motor type		MISD5.31		MISD5.32		MISD5.33		MISD5.34	
Feedback		**encoder**	**resolver**	**encoder**	**resolver**	**encoder**	**resolver**	**encoder**	**resolver**
Without brake	L80	116	101	146	131	176	161	206	191
	L81	130	115	160	145	190	175	220	205
With brake	L80	164	149	194	179	224	209	254	239
	L81	178	163	208	193	238	223	268	253
L30		46	31	46	31	46	31	46	31
Fr @ 3000 rpm [N]		440							
Fa @ 3000 rpm [N]		210							

Values of this catalogue are referred to the following conditions:

- Max Temperature ambient 40° C
- Min temperature ambient 0 °C
- Max Altitude 1000 m sl
- F insulation class, materials F e H
- RMS value
- Installation with insulated flange
- Degree of Protection IP65 (shaft excluding)
- Installation Motor design B5 – V5
- Cooling IC0041
- Typical value, tolerance ±10%
- 100K temperature increase on the winding

The following accessories are available on request:

- Gear reducers
- Precision planetary gears reducers
- Digital Drive
- Low-cost digital drive
- Connectors Cable motor-drive
- Special winding
- Sensorless motor
- Custom shaft
- Application & new design

Value of this catalogue can be changed without notice

Code Composition

1	2	3	4	5	6	7	8	9	10	11	12
MI	S	D	5	3	1	1	0	4	7	x	x

Tab. 3

Pos. Description

1-3 **Product**
MISD= PM synchronous motor, self cooling

4 **Motor type**

5 **Motor Size**
Size Three

6 **Motor Lenght**
1= Mo 1,5 Nm
2= Mo 2,9 Nm
3= Mo 4,2 Nm
4= Mo 5,3 Nm

7 **Voltage**
1= For DC bus 320 V
2= For DC bus 560 V

8 **Holding brake**
0= Without brake
1= With holding brake Mb=9 Nm 18W 24 VDC PM Jbr=1,1Kgcm^2 m=0,8Kg

9 **Feedback**
0= Sensorless
4= Encoder 2048 i/g TTL LD + hall
6= Encoder 4096 i/g TTL LD + hall
7= Encoder 1Vpp + position sin-cos
9= Resolver size 15 2p 7V 10KHz
A= Multiturn Biss Encoder Hengstler AD36
P= Multiturn Hyperface Encoder SRM50

10 **Connection type**
1= Cable glands
7= M23 connectors 90° rotatable

11-12 **Special version**
03=Shaft 19x40 Flange 63B5
UL= UL insulation system E220486 155°C
84= Thermal protection KTY84-130