Description	Symbol	Unit	MKD090B-035		
Cooling mode – Motor overtemperature			Natural 60K	Natural 100K	Surface 60K /100K
Electric parameters					
Characteristic motor speed	n_K	min^{-1}	2500		
Continous torque at standstill	M_{dN}	Nm	12,0	13,5	18,0
Continous current at standstill	I_{dN}	A	11,0	12,5	16,5
Peak current	I_{max}	A	49,5		
Torque constant at 20°C [1])	K_m	Nm/A	1,22		
Voltage constant at 20°C	$K_{E(eff)}$	$V/1000min^{-1}$	111		
Winding resistance at 20°C	R_{12}	Ω	1,88		
Winding inductace	L_{12}	mH	15,5		
Number of pole pairs	p		4		
Rated data [2])					
Rated speed	n_N	min^{-1}	3000	3000	3000
Rated torque	M_N	Nm	7,2	10,2	15
Rated current	I_N	A	4,7	6,7	9,7
Rated power	P_N	kW	2,8	4	5,9
Rated voltage	U_N	V	354	369	399
Rated frequency	f_N	Hz	200	200	200
Mechanical parameters					
Rotor inertia	J_M	kgm^2	43,0 x 10^{-4}		
Theoretical maximum torque	M_{max}	Nm	43,5		
Minimum strand cross-sectíon [4])	S	mm^2	1	1	1
Thermal time constant	T_{th}	min	60	60	30
Maximum speed	n_{max}	min^{-1}	5000		
Motor mass [3]) [5])	m	kg	14,0		
Perm. storage and transport temp.	T_L	°C	-20 to +80		
Permissible ambient temperature [6])	T_{um}	°C	0 to 40		
Max. setup height [6])	h	m	1000 above NN		
Protection category [7])			IP65		
Insulation class (according to DIN VDE 0530 Part 1)			F		
Housing coat			Prime coat black in a/wRAL 9005		

[1]) Km is to be used for calculations with crest values (I_{dN}, I_{max}). For calculations with root-mean-square values (rated data), the torque constant K_m must be multiplied by a factor of $\sqrt{2}$.
[2]) Values determined according to EN 60034-1. Current and voltage specified as root-mean-square values.
[3]) Use the declared value in bracket for motors holding brake.
[4]) Applicable to REXROTH cables. Rated according to VDE0298-4 (1992) and installation type B2 according to EN 60204-1 (1993) at an ambient temperature of 40 °C.
[5]) Without blower unit.
[6]) If the limits specified are exceeded, the performance data must be reduced if necessary. For reduction factors, refer to the chapter entitled “Environmental Conditions”.
[7]) Provided the power and encoder cables are mounted properly

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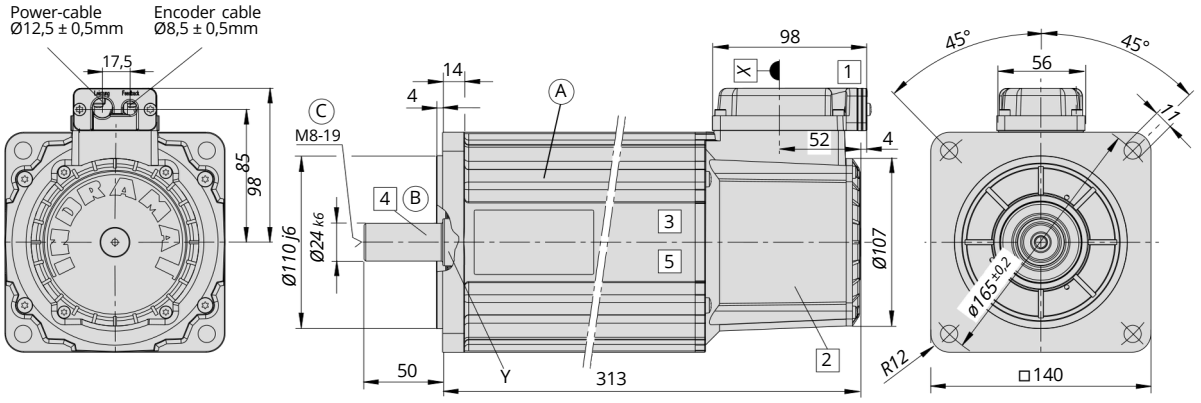
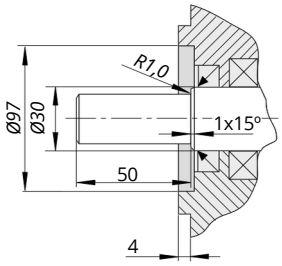


Detail Y:

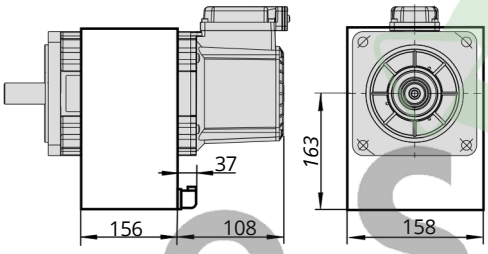


Ⓐ Motor as per DIN EN 60034-7 1996-06, B5 for all mounting orientations

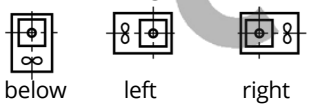
Ⓑ
- Flange as per DIN 42948, Ausg. 11.65
- Position accuracy per concentricity, excentricity and coaxiality to shaft as per DIN 42955 tolerance class N, ed. 12.81

Ⓒ
- Shaft end per DIN 748 sec. 3, ed. 07.75, IEC 72, ed. 1971, cylindrical
- center drill hole DS M8 per DIN 332 part 2, ed. 05.83 max. screw tightening torque 12,0 Nm
- vibration severity level N per DIN VDE 0530 part 14, ed. 02.93

5 Cooling mode:
- natural convection (dim. see above)
- radiale surface cooling



Possible arrangements:



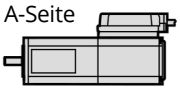
below left right

(looking from front onto motor shaft)

Options:

1 Output direction
The output direction of this box (power and encoder cables) is selected at the time of mounting. Possible directions are:

- to side A
- to side B



Side B is the output direction illustrated. The dimensions for side A as output direction can be obtained by turning the terminal box around the X axis.

2 Motor encoder
- Resolverfeedback (RSF)
- Resolverfeedback (RSF) with integal multiturn absolute encoder

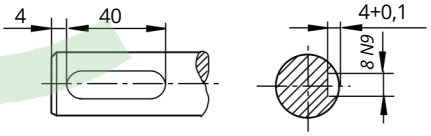
The dimensions are identical.

3 Holding brake:
- without
- with

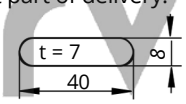
The dimensions are identical.

4 Output shaft
- plain shaft (preferred type)
- with keyway per DIN 6885 sheet 1, ed. 08.68

(Note! balanced with entire key!)



Matching keyway: DIN 6885-A 8 x 7 x 40, not part of delivery.



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