

III.6 DBL5

The data can have a tolerance of +/- 10%.

Technical data

Data	Symbol [Unit]	DBL5 N01050	DBL5 H01050	DBL5 N01350	DBL5 H01350	DBL5 N01700	DBL5 H01700	DBL5 N02200
<b>Electrical data</b>								
Standstill torque	$M_0$ [Nm]	10,5	10,5	13,5	13,5	17	17	22
Standstill current	$I_{0rms}$ [A]	6,5	14,1	8,7	18,6	10,4	20,0	13,7
Mains voltage	$U_N$ [VAC]	230-480						
$U_N = 230V$	Rated speed	$n_n$ [min <sup>-1</sup> ]	—	3000	—	3000	—	3000
	Rated torque	$M_n$ [Nm]	—	8,5	—	10,7	—	14
	Rated current	$I_n$ [A]	—	13	—	15,7	—	17,3
	Rated power	$P_n$ [kW]	—	2,67	—	3,36	—	4,40
$U_N = 400V$	Rated speed	$n_n$ [min <sup>-1</sup> ]	3000	—	3000	—	3000	—
	Rated torque	$M_n$ [Nm]	8,5	—	10,7	—	14	—
	Rated current	$I_n$ [A]	5,7	—	7,3	—	9,1	—
	Rated power	$P_n$ [kW]	2,67	—	3,36	—	4,40	—
$U_N = 480V$	Rated speed	$n_n$ [min <sup>-1</sup> ]	3600	—	3600	—	3600	—
	Rated torque	$M_n$ [Nm]	8	—	10	—	13,4	—
	Rated current	$I_n$ [A]	5	—	6,45	—	8,17	—
	Rated power	$P_n$ [kW]	3,02	—	3,77	—	5,05	—
Peak current	$I_{0max}$ [A]	30	71	40	85	48	91	63
Torque constant	$K_{Trms}$ [Nm/A]	1,6	0,74	1,55	0,73	1,64	0,86	1,6
Voltage constant	$K_{Erms}$ [mVmin]	97	45	94	44	99	52	97
Winding resistance Ph-Ph	$R_{20}$ [Ω]	2,25	0,52	1,71	0,38	1,25	0,36	0,94
Winding inductance Ph-Ph	L [mH]	19,8	4,5	16,5	3,1	12,6	3,3	9
<b>Mechanical data</b>								
Rotor moment of inertia	J [kgcm <sup>2</sup> ]	8,1		9,1		11,3		13,1
Static friction torque	$M_R$ [Nm]	0,25		0,30		0,30		0,40
Thermal time constant	$t_{TH}$ [min]	50		55		60		75
Weight standard	G [kg]	9,8		11,2		14		17
Radial load permitted at shaft end @ 3000 min <sup>-1</sup>	$F_R$ [N]	640						
Axial load permitted at shaft end @ 3000 min <sup>-1</sup>	$F_A$ [N]	200						
Motor number		00666R	00562R	00576R	00633R	00665R	00661R	00620R

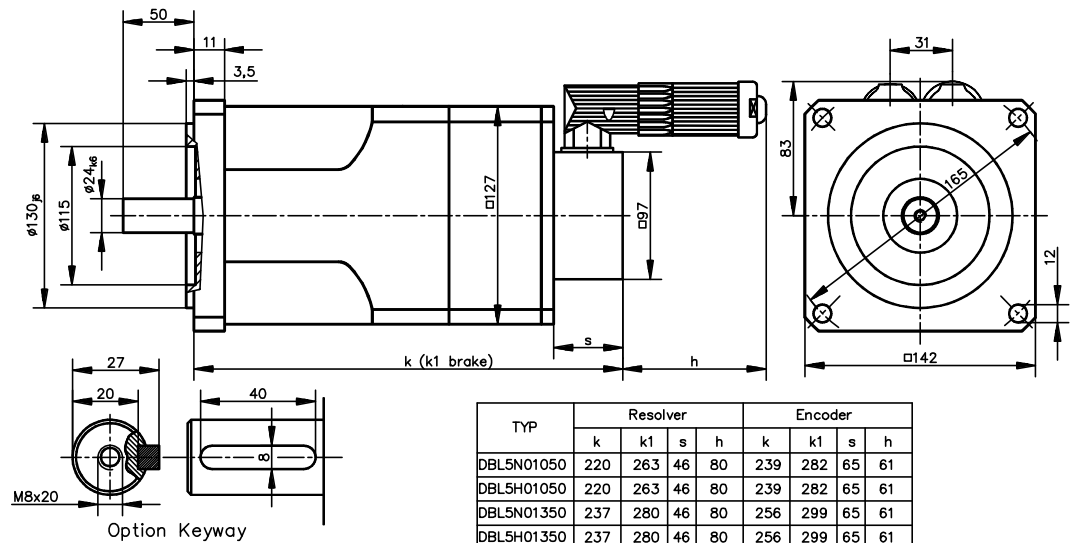
Brake data

Data	Symbol [Unit]	Value
Holding torque	$M_{BR}$ [Nm]	12
Operating voltage	$U_{BR}$ [VDC]	24 +15 / -0 %
electrical power	$P_{BR}$ [W]	18
Moment of inertia	$J_{BR}$ [kgcm <sup>2</sup> ]	3,6
Release delay time	$t_{BRH}$ [ms]	30-60
Application delay time	$t_{BRL}$ [ms]	10-20
Weight of the brake	$G_{BR}$ [kg]	1,5

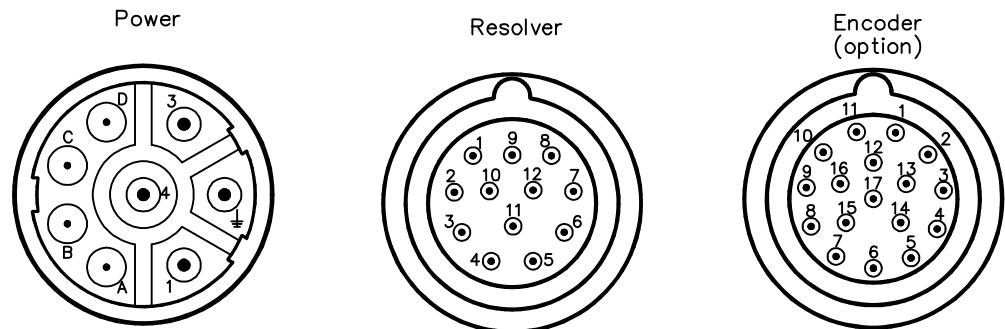
Connections and leads

Data	DBL5 N01050	DBL5 H01050	DBL5 N01350	DBL5 H01350	DBL5 N01700	DBL5 H01700	DBL5 N02200
Power connection	4 + 4 poles, round, angular						
Motor cable, shielded	4 x 1,5	4 x 2,5	4 x 1,5	4 x 2,5	4 x 1,5	4 x 2,5	
Motor cable with control leads, shielded	4 x 1,5 + 2 x 0,75	4 x 2,5 + 2 x 1	4 x 1,5 + 2 x 0,75	4 x 2,5 + 2 x 1	4 x 1,5 + 2 x 0,75	4 x 2,5 + 2 x 1	
Resolver connection	12 poles, round, angular						
Resolver cable, shielded	4 x 2 x 0,25mm <sup>2</sup>						
Encoder connection (Option)	17 poles, round, angular						
Encoder cable, shielded	7 x 2 x 0,25mm <sup>2</sup>						

Dimensions (drawing in principle)



Pin assignment



Power connector		Resolver connector		Encoder connector (Option)	
Pin	Connection	Pin	Connection	Pin	Connection
1	U2	1	n.c.	1	B- (Cosine)
⏏	PE	2	Thermostat	2	0 V (power supply)
3	W2	3	+ Cosine	3	A- (Sine)
4	V2	4	- Sine	4	U <sub>P</sub> (power supply)
		5	+ Reference	5	DATA
A	Brake + (Option)	6	Thermostat	6	n.c.
B	Brake - (Option)	7	- Cosine	7	Thermostat
C	2nd Thermostat (Option)	8	+ Sine	8	CLOCK
D	2nd Thermostat (Option)	9	- Reference	9	B+ (Cosine)
		10	n.c.	10	0 V (Sense)
		11	n.c.	11	A+ (Sine)
		12	n.c.	12	U <sub>P</sub> (Sense)
				13	DATA
				14	Thermostat
				15	CLOCK
				16	n.c.
				17	n.c.