

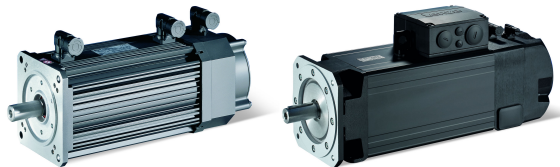
Servo motors

MCA asynchronous servo motor

Technical data

Rated data

Inverter mains connection 400 V, Forced ventilated motors

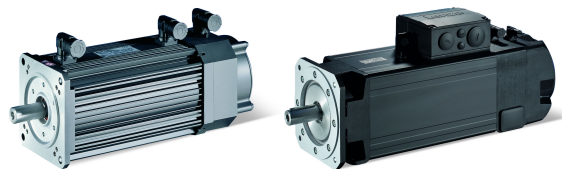


Inverter mains connection 400 V, Forced ventilated motors

Motor			MCA 13I34-	MCA 14L35-	MCA 14L16-	MCA 17N35-	MCA 17N17-	MCA 19S35-
Degree of protection			IP54	IP54	IP54	IP54	IP54	IP54
Standstill torque	M_0	Nm	7.00	13.5	13.5	23.9	23.9	40.0
Rated torque	M_{rated}	Nm	6.30	10.8	12.0	19.0	21.5	36.0
Max. torque	M_{max}	Nm	32.0	60.0	60.0	100	100	180
Rated speed	n_{rated}	rpm	3410	3455	1635	3480	1680	3510
Max. speed	n_{max}	rpm	8000	8000	8000	8000	8000	8000
Rated power	P_{rated}	kW	2.2	3.9	2.1	6.9	3.8	13.2
Standstill current	I_0	A	6.30	10.5	5.25	18.1	9.05	30.8
Rated current	I_{rated}	A	6.00	9.10	4.80	15.8	8.50	28.7
Max. current	I_{max}	A	24.0	36.4	19.2	63.2	34.0	115
Rated voltage	V_{rated}	V	390	390	390	390	390	390
Rated frequency	f_{rated}	Hz	120	120	60	120	60	120
Moment of inertia	J	kgcm ²	8.30	19.2	19.2	36.0	36.0	72.0
Efficiency	η		0.720	0.790	0.800	0.810	0.830	0.850
Stator terminal resistance	$R_{UV 20}$ °C	Ω	3.4	1.5	6	0.76	3.04	0.35
Stator terminal resistance	$R_{UV 150}$ °C	Ω	5.124	2.261	9.042	1.145	4.581	0.527
Mutual inductance	L_H	mH	76.7	56.7	224.34	36.9	143.66	20.32
Stator leakage inductance	$L_{1\sigma}$	mH	4.949	2.365	9.464	1.396	5.585	0.652
Rotor leakage inductance	$L_{2\sigma}$	mH	4.392	2.324	9.303	1.51	6.042	0.765
Stator resistance	$R_{1, 20}$	Ω	1.7	0.75	3	0.38	1.52	0.175
Rotor resistance	$R_{2, 20}$	Ω	1.41	0.781	3.13	0.342	1.37	0.154
Weight	m	kg	12.0	16.9	16.9	25.5	25.5	48.2

Technical data

Selection tables



The following data apply to a mains voltage 3x 400 V and a switching frequency of 4 kHz of the inverter with MCA 13 ... 19/21 and 8 kHz of the inverter with MCA 20/22/26.

When operating the MCA motors 20/22/26 with a lower switching frequency, please contact your Lenze representative!

When operating the MCA motors 20/22/26 at 4 kHz, the motor only produces 95 % of its rated torque at increased noise emission.

MCA13 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 13I34-	I95AE222F	5.8	5.7	13.8	13.8
	I95AE240F	7.0	6.3	24.1	24.1
	I95AE275F			30.7	30.7

MCA14 Forced-ventilated

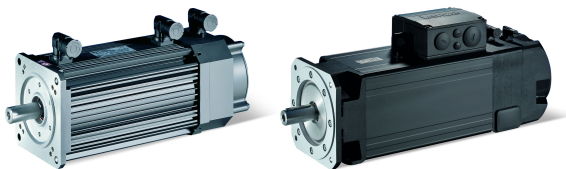
Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 14L16-	I95AE222F	13.5	12.0	31.5	31.5
	I95AE240F			54.2	54.2
	I95AE275F			54.8	54.8
MCA 14L35-	I95AE240F	11.8	10.8	25.9	25.9
	I95AE275F	13.5		46.0	46.0
	I95AE311F			50.8	50.8

MCA17 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 17N17-	I95AE240F	23.9	21.5	52.5	52.5
	I95AE275F			92.4	92.4
	I95AE311F			95.2	95.2
MCA 17N35-	I95AE275F	21.4	19.0	43.4	43.4
	I95AE311F	23.9		62.6	62.6
	I95AE315F			84.7	84.7

MCA19 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 19S17-	I95AE275F	40.0	36.3	96.7	96.7
	I95AE311F			139	139
	I95AE315F			165	165
MCA 19S35-	I95AE311F	27.6	27.2	64.3	64.3
	I95AE315F	40.0		89.4	89.4
	I95AE322F			133	133
	I95AE330F			163	163



The following data apply to a mains voltage 3x 400 V and a switching frequency of 4 kHz of the inverter with MCA 13 ... 19/21 and 8 kHz of the inverter with MCA 20/22/26.

When operating the MCA motors 20/22/26 with a lower switching frequency, please contact your Lenze representative!

When operating the MCA motors 20/22/26 at 4 kHz, the motor only produces 95 % of its rated torque at increased noise emission.

MCA13 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 13I34-	E94AXXE0044	4.6	4.4	20.8	20.8
	E94AXXE0074	7.0	6.3	26.0	26.0
	E94AXXE0094			29.2	29.2

MCA14 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 14L16-	E94AXXE0044	12.0	12.0	45.4	45.4
	E94AXXE0074	13.5		52.6	52.6
MCA 14L35-	E94AXXE0094	10.1	9.7	32.4	32.4
	E94AXXE0094	13.5	10.8	46.0	46.0
	E94AXXE0134			60.0	60.0

MCA17 Forced-ventilated

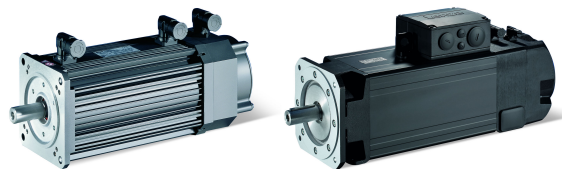
Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 17N17-	E94AXXE0074	21.6	21.5	59.4	59.4
	E94AXXE0094	23.9		81.4	81.4
	E94AXXE0134			84.5	84.5
MCA 17N35-	E94AXXE0174	19.4	19.0	59.2	59.2
	E94AXXE0174	23.9		75.0	75.0
	E94AXXE0244			90.0	90.0

MCA19 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 19S17-	E94AXXE0134	40.0	36.3	105	105
	E94AXXE0174			133	133
	E94AXXE0244			148	148
MCA 19S35-	E94AXXE0324	36.9	36.0	82.0	82.0
	E94AXXE0324	40.0		112	112
	E94AXXE0474			132	132
	E94AXXE0594			160	160

Technical data

Selection tables



The data apply to a mains voltage of 3x 400 V and a switching frequency of 8 kHz of the inverter.

If the motors are operated at a lower switching frequency, please get in touch with your Lenze representative!

When operating at 4 kHz, the motor generates just 95 % of its rated torque with increased noise emissions.

MCA13 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 13I34-	E84AVTCX3024	7.0	6.2	21.4	21.4
	E84AVTCX4024			28.2	28.2
	E84AVTCX5524			32.0	32.0

MCA14 Forced-ventilated

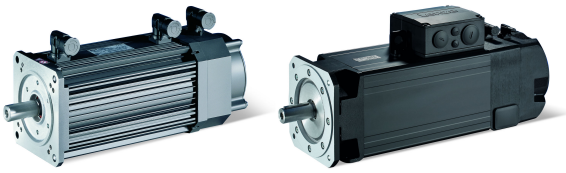
Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque
		M_0	M_{rated}	$M_{0, max}$	M_{max}
		Nm	Nm	Nm	Nm
MCA 14L16-	E84AVTCX2224	13.5	12.3	34.7	34.7
	E84AVTCX3024			45.5	45.5
	E84AVTCX4024			50.8	50.8
MCA 14L35-	E84AVTCX5524		10.8	28.4	28.4
	E84AVTCX7524			39.8	39.8
	E84AVTCX1134			51.1	51.1
				56.5	56.6

MCA17 Forced-ventilated

Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque	
		M_0	M_{rated}	$M_{0, max}$	M_{max}	
		Nm	Nm	Nm	Nm	
MCA 17N17-	E84AVTCX4024	23.9	21.6	55.9	56.0	
	E84AVTCX5524			77.5	77.5	
	E84AVTCX7524			93.3	93.3	
MCA 17N35-	E84AVTCX1134		18.9	18.9	49.5	49.5
	E84AVTCX1534				72.5	72.5
					97.8	97.8

MCA19 Forced-ventilated

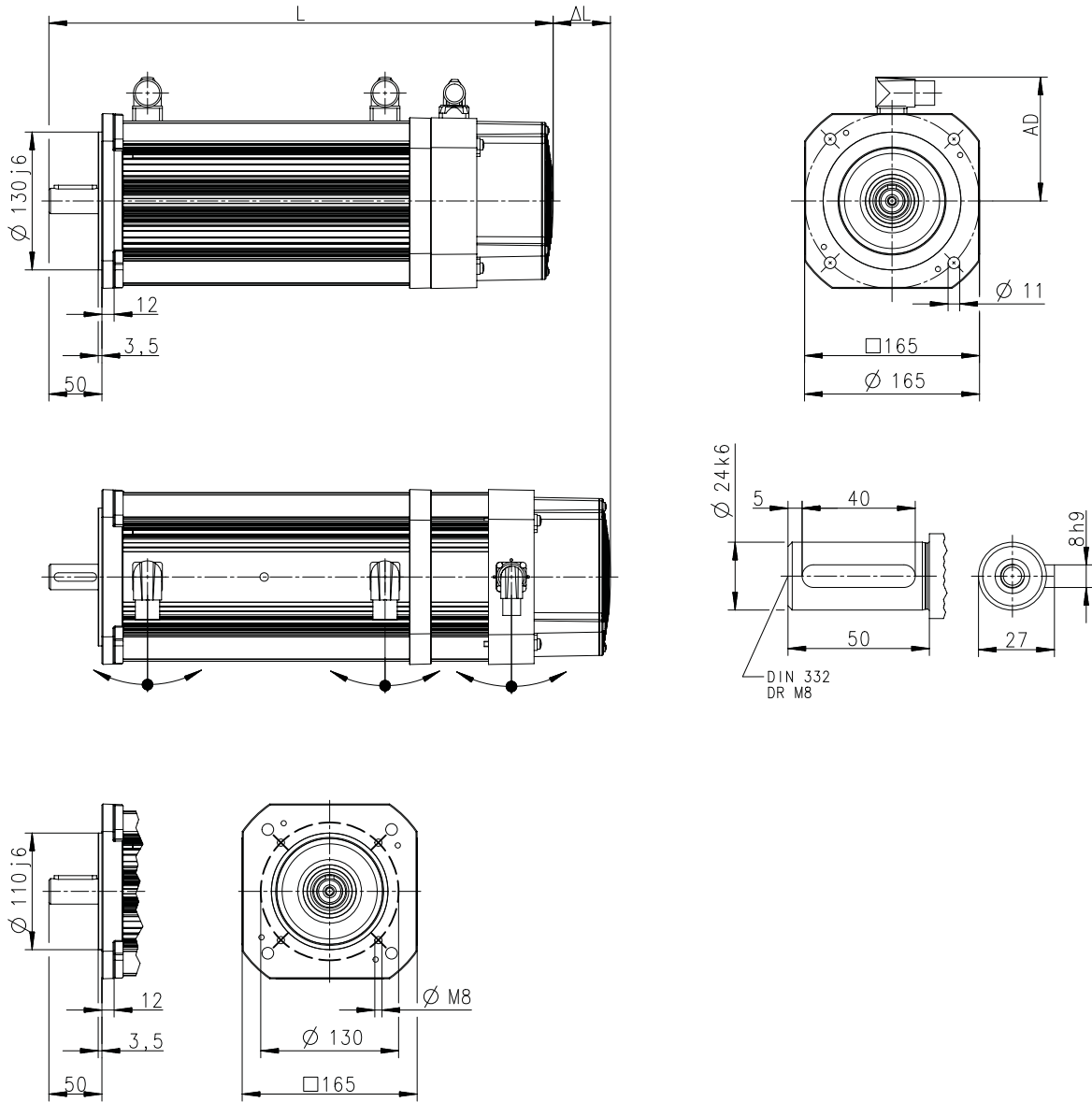
Motor	Inverter	Standstill torque	Rated torque	Max. standstill torque	Max. torque	
		M_0	M_{rated}	$M_{0, max}$	M_{max}	
		Nm	Nm	Nm	Nm	
MCA 19S17-	E84AVTCX7524	40.0	36.0	94.7	94.7	
	E84AVTCX1134			139	139	
	E84AVTCX1534			165	165	
MCA 19S35-	E84AVTCX1834		35.9	35.9	78.8	78.8
	E84AVTCX2234				97.8	97.8
	E84AVTCX3034				113	113
				146	146	



Technical data

Dimensions
Basic dimensions

MCA17, forced ventilated Type B5-FF165 / B14-FT130



8800664-00

Motor			MCA 17N17-	MCA 17N35-
Total length without brake	L	mm	476	
Total length with brake	L	mm	511	
Motor/connection distance	AD	mm	118	

Δ L ▶ Additional lengths □ 90