

MSBCCL Series

Asynchronous Three-Phase Brake Motors with Squirrel Cage Rotor - Direct Current Brake

- **MSBCCL series-enclosed construction externally ventilated-sizes 63~160**



The brake-motors of the MSBCCL series result from coupling an asynchronous three-phase motor and an electromagnetic D.C. brake unit. Due to their reliability and operating safety, as well as their quick braking time (connection & disconnection time = 5~80 milliseconds) they are suitable for a great variety of applications, such as:

- Braking of loads or torques on the driving shaft.
- Braking of rotating masses to reduce any lost-time.
- Braking operations to increase the set-up precision.
- Braking of machine parts, according to safety rules.



Technical Features

2 poles-3000rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (Cos Φ)	Current			T_s/T_n (Times)	T_{max}/T_n (Times)	T_{min}/T_n (Times)	I_s/I_n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-2	0.18	2710	63	0.75	0.95	0.55	0.32	2.2	2.4	1.6	6	61
MSBCCL632-2	0.25	2710	65	0.78	1.23	0.71	0.41	2.2	2.4	1.6	6	61
MSBCCL633-2	0.37	2710	65	0.78	1.82	1.05	0.61	2.2	2.4	1.6	6	62
MSBCCL711-2	0.37	2730	70	0.79	1.67	0.97	0.56	2.2	2.4	1.6	6	64
MSBCCL712-2	0.55	2760	71	0.79	2.45	1.42	0.82	2.2	2.4	1.6	6	64
MSBCCL713-2	0.75	2730	72	0.82	3.18	1.83	1.06	2.2	2.4	1.5	6	65
MSBCCL801-2	0.75	2770	73	0.84	3.06	1.77	1.02	2.2	2.4	1.5	6	67
MSBCCL802-2	1.1	2770	76.2	0.83	4.35	2.51	1.45	2.2	2.4	1.5	6	67
MSBCCL803-2	1.5	2800	78.5	0.83	5.87	3.32	1.92	2.2	2.4	1.5	6	70
MSBCCL90S-2	1.5	2840	78.5	0.84	5.76	3.28	1.90	2.2	2.4	1.5	6	72
MSBCCL90L1-2	2.2	2840	81	0.85	8.0	4.61	2.66	2.2	2.4	1.4	6	72
MSBCCL90L2-2	3	2840	82.6	0.86	10.56	6.10	3.52	2.2	2.4	1.4	6	74
MSBCCL100L1-2	3	2840	82.6	0.87	10.44	6.03	3.48	2.2	2.3	1.4	7	76
MSBCCL100L2-2	4	2850	84.2	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSBCCL112M-2	4	2880	84.2	0.87	13.65	7.88	4.55	2.2	2.3	1.4	7.5	77
MSBCCL112L-2	5.5	2880	85.7	0.88	18.23	10.53	6.08	2.2	2.3	1.2	7.5	78
MSBCCL132S1-2	5.5	2900	85.7	0.88	18.23	10.53	6.08	2	2.2	1.2	7.5	80
MSBCCL132S2-2	7.5	2920	87	0.88	24.49	14.14	8.16	2	2.2	1.2	7.5	80
MSBCCL132M1-2	9.2	2930	88	0.89	29.87	17.25	9.96	2	2.2	1.2	7.5	81
MSBCCL132M2-2	11	2930	88.4	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	83
MSBCCL160M1-2	11	2940	88.4	0.9	34.57	19.96	11.52	2	2.2	1.2	7.5	86
MSBCCL160M2-2	15	2940	89.4	0.91	46.09	26.61	15.36	2	2.2	1.2	7.5	86
MSBCCL160L-2	18.5	2940	90	0.91	56.47	32.6	18.82	2	2.2	1.1	7.5	86

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg ^m ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time Msec. ★	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.00005	3000	45	20	10	62
MSBCCL 71	K 2	12	20	0.00014	3000	50	30	15	64
MSBCCL 80	K 3	16	25	0.00021	1300	55	30	15	67
MSBCCL 90S	K 4	20	30	0.00039	1100	65	40	15	72
● MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	72
MSBCCL 90 L	K 4	20	30	0.00039	1100	65	40	15	72
● MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	72
MSBCCL 100 L	K 5	40	45	0.00104	900	75	45	20	76
● MSBCCL 100 L	K 6	60	50	0.00135	900	180	85	25	76
MSBCCL 112 MT	K 5	40	45	0.00104	880	75	45	20	77
MSBCCL 112 M	K 6	60	50	0.00135	880	180	85	25	78
MSBCCL 132 S	K 7	90	55	0.00219	480	200	95	50	80
● MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	80
MSBCCL 132 M	K 7	90	55	0.00219	450	200	95	50	80
● MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	80
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	86
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	86
● MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	86

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.



Technical Features

4 poles-1500rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (Cos Φ)	Current			T_{st}/T_n (Times)	T_{max}/T_n (Times)	T_{min}/T_n (Times)	I_{st}/I_n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-4	0.12	1350	57	0.64	0.82	0.47	0.27	2.2	2.4	1.7	6	52
MSBCCL632-4	0.18	1350	59	0.65	1.17	0.68	0.39	2.2	2.4	1.7	6	52
MSBCCL633-4	0.25	1350	60	0.66	1.58	0.91	0.53	2.2	2.4	1.7	6	54
MSBCCL711-4	0.25	1350	60	0.72	1.45	0.84	0.48	2.2	2.4	1.7	6	55
MSBCCL712-4	0.37	1370	65	0.74	1.92	1.11	0.64	2.2	2.4	1.7	6	55
MSBCCL713-4	0.55	1380	66	0.75	2.78	1.60	0.93	2.2	2.4	1.7	6	57
MSBCCL801-4	0.55	1370	67	0.75	2.74	1.58	0.91	2.2	2.4	1.7	6	58
MSBCCL802-4	0.75	1380	72	0.78	3.34	1.93	1.11	2.2	2.4	1.6	6	58
MSBCCL803-4	1.1	1390	76.2	0.78	4.63	2.67	1.54	2.2	2.4	1.6	6	60
MSBCCL90S-4	1.1	1400	76.2	0.79	4.57	2.64	1.52	2.2	2.4	1.6	6	61
MSBCCL90L-4	1.5	1400	78.5	0.8	5.97	3.45	1.99	2.2	2.4	1.6	6	61
MSBCCL90L2-4	2.2	1400	81	0.8	8.45	4.90	2.83	2.2	2.4	1.5	7	63
MSBCCL100L1-4	2.2	1420	81	0.81	8.38	4.84	2.79	2.2	2.3	1.5	7	64
MSBCCL100L2-4	3	1420	82.6	0.81	11.21	6.47	3.74	2.2	2.3	1.5	7	64
MSBCCL100L3-4	4	1430	84.2	0.82	14.18	8.36	4.83	2.2	2.3	1.5	7	65
MSBCCL112M-4	4	1430	84.2	0.83	14.31	8.26	4.77	2.2	2.2	1.5	7	65
MSBCCL112L-4	5.5	1440	85.7	0.83	19.33	11.16	6.44	2.2	2.2	1.4	7	68
MSBCCL132S-4	5.5	1450	85.7	0.84	19.1	11.03	6.37	2.2	2.2	1.4	7	71
MSBCCL132M-4	7.5	1450	87	0.85	25.35	14.64	8.45	2.2	2.2	1.4	7	71
MSBCCL132L1-4	9.2	1460	87.5	0.85	30.92	17.85	10.31	2.2	2.2	1.4	7.5	74
MSBCCL132L2-4	10	1460	88	0.85	33.42	19.3	11.14	2.2	2.2	1.4	7.5	74
MSBCCL132L2-4	11	1460	88.4	0.86	36.17	20.88	12.06	2.2	2.2	1.4	7.5	74
MSBCCL160M-4	11	1460	88.4	0.87	35.76	20.64	11.92	2.2	2.2	1.4	7	75
MSBCCL160L-4	15	1460	88.4	0.87	48.76	28.15	16.25	2.2	2.2	1.4	7.5	75

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg ^m ²	No.of Starts/hr. Under No Load	Delayed Cut-in Time Msec.★	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.0005	3000	45	20	10	52
MSBCCL 71	K 2	12	20	0.0014	3000	50	30	15	55
MSBCCL 80	K 3	16	25	0.0021	1300	55	30	15	58
MSBCCL 90S	K 4	20	30	0.0039	1100	65	40	15	61
●MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	61
MSBCCL 90 L	K 4	20	30	0.0039	1100	65	40	15	63
●MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	63
MSBCCL 100 L	K 5	40	45	0.0104	900	75	45	20	64
●MSBCCL 100 L	K 6	60	50	0.0135	900	180	85	25	65
MSBCCL 112 MT	K 5	40	45	0.0104	880	75	45	20	65
MSBCCL 112 M	K 6	60	50	0.0135	880	180	85	25	65
MSBCCL 132 S	K 7	90	55	0.0219	480	200	95	50	71
●MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	71
MSBCCL 132 M	K 7	90	55	0.0219	450	200	95	50	71
●MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	71
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	75
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	75
●MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	75

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.



Technical Features

6 poles-1000rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (Cos Φ)	Current			T _{st} /T _n (Times)	T _{max} /T _n (Times)	T _{min} /T _n (Times)	I _a /I _n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL631-6	0.09	840	42	0.61	0.88	0.51	0.29	2	2	1.5	3.5	50
MSBCCL632-6	0.12	850	45	0.62	1.08	0.62	0.36	2	2	1.5	3.5	50
MSBCCL711-6	0.18	880	56	0.66	1.22	0.70	0.41	1.6	1.7	1.5	4	52
MSBCCL712-6	0.25	900	59	0.7	1.51	0.87	0.50	2.1	2.2	1.5	4	52
MSBCCL713-6	0.37	890	61	0.69	2.2	1.27	0.73	2	2.1	1.5	4	54
MSBCCL801-6	0.37	900	62	0.7	2.13	1.23	0.71	1.9	1.9	1.5	4	56
MSBCCL802-6	0.55	900	67	0.72	2.85	1.65	0.95	2	2.3	1.5	4	56
MSBCCL803-6	0.75	900	68	0.72	3.83	2.21	1.28	2	2.3	1.5	4	58
MSBCCL90S-6	0.75	920	69	0.72	3.77	2.18	1.26	2.2	2.2	1.5	5.5	59
MSBCCL90L-6	1.1	925	72	0.73	5.23	3.02	1.74	2.2	2.2	1.3	5.5	59
MSBCCL100L-6	1.5	945	74	0.76	6.67	3.85	2.22	2.2	2.2	1.3	6	61
MSBCCL112M-6	2.2	955	78	0.76	9.28	5.36	3.09	2.2	2.2	1.3	6	64
MSBCCL132S-6	3	960	79	0.76	12.49	7.21	4.16	2	2	1.3	6.5	64
MSBCCL132M1-6	4	960	80.5	0.76	16.35	9.44	5.45	2	2	1.3	6.5	68
MSBCCL132M2-6	5.5	960	83	0.77	21.51	12.42	7.17	2	2	1.3	6.5	68
MSBCCL132L-6	7.5	960	85	0.77	28.65	16.54	9.55	2	2	1.3	6.5	68
MSBCCL160M-6	7.5	960	86	0.8	27.25	15.73	9.08	2	2.2	1.3	6.5	68
MSBCCL160L-6	11	960	87.5	0.79	39.78	22.97	13.26	2	2.2	1.2	6.5	73

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg m ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time Msec. ★	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
MSBCCL63	K 1	5	15	0.00005	3000	45	20	10	50
MSBCCL 71	K 2	12	20	0.00014	3000	50	30	15	52
MSBCCL 80	K 3	16	25	0.00021	1300	55	30	15	56
MSBCCL 90S	K 4	20	30	0.00039	1100	65	40	15	59
●MSBCCL 90S	K 4 D	40	30	0.00078	1100	65	40	15	59
MSBCCL 90 L	K 4	20	30	0.00039	1100	65	40	15	59
●MSBCCL 90 L	K 4 D	40	30	0.00078	1100	65	40	15	59
MSBCCL 100 L	K 5	40	45	0.00104	900	75	45	20	61
●MSBCCL 100 L	K 6	60	50	0.00135	900	180	85	25	61
MSBCCL 112 MT	K 5	40	45	0.00104	880	75	45	20	64
MSBCCL 112 M	K 6	60	50	0.00135	880	180	85	25	64
MSBCCL 132 S	K 7	90	55	0.00219	480	200	95	50	64
●MSBCCL 132 S	K 7 D	180	55	0.00438	480	200	95	50	64
MSBCCL 132 M	K 7	90	55	0.00219	450	200	95	50	68
●MSBCCL 132 M	K 7 D	180	55	0.00438	480	200	95	50	68
MSBCCL 160 MT	K 7 D	180	55	0.00438	350	200	95	50	68
MSBCCL 160 L	K 8	200	60	0.00408	350	210	100	60	73
●MSBCCL 160 L	K 8 D	400	60	0.00816	350	210	100	60	73

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.



Technical Features

8 poles-750rpm-50Hz

Brake motors have a $\pm 6\%$ tolerance on the supply voltage

Model	Power (KW)	Speed (r/min)	Eff. (%)	Power Factor (Cos Φ)	Current			T_{st}/T_n (Times)	T_{max}/T_n (Times)	T_{min}/T_n (Times)	I_{st}/I_n (Times)	Noise dB(A)
					230V	400V	690V					
MSBCCL711-8	0.09	680	48	0.56	0.84	0.48	0.28	1.5	1.7	1.3	3	50
MSBCCL712-8	0.12	690	51	0.59	1.00	0.58	0.33	1.6	1.7	1.3	2.7	50
MSBCCL801-8	0.18	680	51	0.61	1.45	0.84	0.48	1.5	1.7	1.3	2.8	52
MSBCCL802-8	0.25	680	56	0.61	1.83	1.06	0.61	1.6	2	1.3	2.7	52
MSBCCL90S-8	0.37	680	63	0.63	2.33	1.35	0.78	1.6	1.8	1.3	2.8	56
MSBCCL90L-8	0.55	680	66	0.65	3.21	1.85	1.07	1.6	1.8	1.3	3	56
MSBCCL100L1-8	0.75	710	66	0.67	4.24	2.45	1.41	1.7	2.1	1.3	3.5	59
MSBCCL100L2-8	1.1	710	72	0.69	5.54	3.20	1.85	1.7	2.1	1.2	3.5	59
MSBCCL112M-8	1.5	710	74	0.68	7.45	4.30	2.48	1.8	2.1	1.2	4.2	61
MSBCCL132S-8	2.2	720	75	0.71	10.33	5.96	3.44	2	2	1.2	5.5	64
MSBCCL132M-8	3	720	77	0.73	13.34	7.70	4.45	2	2	1.2	5.5	64
MSBCCL160M1-8	4	730	80	0.73	17.12	9.89	5.71	1.9	2.1	1.2	6	68
MSBCCL160M2-8	5.5	720	83.5	0.74	22.25	12.85	7.42	2	2.2	1.2	6	68
MSBCCL160L-8	7.5	720	85	0.75	29.41	17.0	9.8	1.9	2.2	1.2	6	68

Type	Brake Type K	Brake Torque Nm	Brake Rated Power W	J Brake Pd ² Kg ^m ²	No. of Starts/hr. Under No Load	Delayed Cut-in Time Msec. ★	Quick Cut-in Time Msec.	Cut Out Time Msec.	Noise dB(A)
63 MSBCCL	K 1	5	15	0.00005	3000	45	20	10	50
71 MSBCCL	K 2	12	20	0.00014	3000	50	30	15	50
80 MSBCCL	K 3	16	25	0.00021	1300	55	30	15	52
90 S MSBCCL	K 4	20	30	0.00039	1100	65	40	15	56
● 90 S MSBCCL	K 4 D	40	30	0.00078	1100	65	40	15	56
90 L MSBCCL	K 4	20	30	0.00039	1100	65	40	15	56
● 90 L MSBCCL	K 4 D	40	30	0.00078	1100	65	40	15	56
100 L MSBCCL	K 5	40	45	0.00104	900	75	45	20	59
● 100 L MSBCCL	K 6	60	50	0.00135	900	180	85	25	59
112 MT MSBCCL	K 5	40	45	0.00104	880	75	45	20	61
112 M MSBCCL	K 6	60	50	0.00135	880	180	85	25	61
132 S MSBCCL	K 7	90	55	0.00219	480	200	95	50	64
● 132 S MSBCCL	K 7 D	180	55	0.00438	480	200	95	50	64
132 M MSBCCL	K 7	90	55	0.00219	450	200	95	50	64
● 132 M MSBCCL	K 7 D	180	55	0.00438	480	200	95	50	64
160 MT MSBCCL	K 7 D	180	55	0.00438	350	200	95	50	68
160 L MSBCCL	K 8	200	60	0.00408	350	210	100	60	68
● 160 L MSBCCL	K 8 D	400	60	0.00816	350	210	100	60	68

● Motor with increased braking torque on request

★ On request, delayed brake cut in time for lifting equipments. We suggest double disk brake D for lifting equipments.