Recommended Fitting Practice for Electric Motors (Ball Bearings)

BEARING DESCRIPTION	SHAFT TOLERANCE (0.0001 in)	HOUSING TOLERANCE (0.0001 in)	SHAFT SIZE (inches)		HOUSING SIZE (inches)	
	FIT = MIN/MAX	FIT = MIN/MAX	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
6208/7208	k5 = -1/-5	H6 = 0/7	1.5749	1.5753	3.1496	3.1503
6209/7209	**k5 = -1/-5**	**H6 = 0/9**	**1.7718**	**1.7722**	**3.3465**	**3.3474**
6210/7210	k5 = -1/-5	H6 = 0/9	1.9686	1.9690	3.5433	3.5442
6211/7211	**k5 = -1/-6**	**H6 = 0/9**	**2.1655**	**2.1660**	**3.9370**	**3.9379**
6212/7212	k5 = -1/-6	H6 = 0/9	2.3623	2.3628	4.3307	4.3316
6213/7213	**k5 = -1/-6**	**H6 = 0/9**	**2.5592**	**2.5597**	**4.7244**	**4.7253**
6214/7214	k5 = -1/-6	H6 = 0/10	2.7560	2.7565	4.9213	4.9223
6215/7215	**k5 = -1/-6**	**H6 = 0/10**	**2.9529**	**2.9534**	**5.1181**	**5.1191**
6216/7216	k5 = -1/-6	H6 = 0/10	3.1497	3.1502	5.5118	5.5128
6217/7217	**k5 = -1/-7**	**H6 = 0/10**	**3.3466**	**3.3472**	**5.9055**	**5.9065**
6218/7218	k5 = -1/-7	H6 = 0/10	3.5434	3.5440	6.2992	6.3002
6219/7219	**k5 = -1/-7**	**H6 = 0/10**	**3.7403**	**3.7409**	**6.6929**	**6.6939**
6220/7220	k5 = -1/-7	H6 = 0/10	3.9371	3.9377	7.0866	7.0876
6308/7308	**k5 = -1/-5**	**H6 = 0/9**	**1.5749**	**1.5753**	**3.5433**	**3.5442**
6309/7309	k5 = -1/-5	H6 = 0/9	1.7718	1.7722	3.9370	3.9379
6310/7310	**k5 = -1/-5**	**H6 = 0/9**	**1.9686**	**1.9690**	**4.3307**	**4.3316**
6311/7311	k5 = -1/-6	H6 = 0/9	2.1655	2.1660	4.7244	4.7253
6312/7312	**k5 = -1/-6**	**H6 = 0/10**	**2.3623**	**2.3628**	**5.1181**	**5.1191**
6313/7313	k5 = -1/-6	H6 = 0/10	2.5592	2.5597	5.5118	5.5128
6314/7314	**k5 = -1/-6**	**H6 = 0/10**	**2.7560**	**2.7565**	**5.9055**	**5.9065**
6315/7315	k5 = -1/-6	H6 = 0/10	2.9529	2.9534	6.2992	6.3002
6316/7316	**k5 = -1/-6**	**H6 = 0/10**	**3.1497**	**3.1502**	**6.6929**	**6.6939**
6317/7317	k5 = -1/-7	H6 = 0/10	3.3466	3.3472	7.0866	7.0876
6318/7318	**k5 = -1/-7**	**H6 = 0/12**	**3.5434**	**3.5440**	**7.4803**	**7.4815**
6319/7319	k5 = -1/-7	H6 = 0/12	3.7403	3.7409	7.8740	7.8752
6320/7320	**k5 = -1/-7**	**H6 = 0/12**	**3.9371**	**3.9377**	**8.4646**	**8.4658**
5308	k5 = -1/-5	H6 = 0/9	1.5749	1.5753	3.5433	3.5442
5309	**k5 = -1/-5**	**H6 = 0/9**	**1.7717**	**1.7722**	**3.9370**	**3.9379**
5310	k5 = -1/-5	H6 = 0/9	1.9686	1.9690	4.3307	4.3316
5311	**k5 = -1/-6**	**H6 = 0/9**	**2.1654**	**2.1659**	**4.7244**	**4.7253**
5312	k5 = -1/-6	H6 = 0/10	2.3623	2.3628	5.1181	5.1191
5313	**k5 = -1/-6**	**H6 = 0/10**	**2.5591**	**2.5596**	**5.5118**	**5.5128**
5314	k5 = -1/-6	H6 = 0/10	2.7560	2.7565	5.9055	5.9065
5315	**k5 = -1/-6**	**H6 = 0/10**	**2.9528**	**2.9533**	**6.2992**	**6.3002**

Recommended Fitting Practice for Electric Motors (Ball Bearings)

BEARING DESCRIPTION	SHAFT TOLERANCE (0.0001 in)	HOUSING TOLERANCE (0.0001 in)	SHAFT SIZE (inches)		HOUSING SIZE (inches)		MOUNTED AXIAL END PLAY (inches)	
	FIT = MIN/MAX	FIT = MIN/MAX	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
6305	K5 = -1/-5	H6 = 0/7	0.9844	0.9848	2.4409	2.4416	0.0000	0.0077
6306	K5 = -1/-5	H6 = 0/7	1.1812	1.1816	2.8346	2.8353	0.0000	0.0082
6307	K5 = -1/-5	H6 = 0/7	1.3781	1.3785	3.1496	3.1503	0.0000	0.0095
6308	K5 = -1/-5	H6 = 0/9	1.5749	1.5753	3.5433	3.5442	0.0000	0.0101
6309	K5 = -1/-5	H6 = 0/9	1.7718	1.7722	3.9370	3.9379	0.0000	0.0111
6310	K5 = -1/-5	H6 = 0/9	1.9686	1.9690	4.3307	4.3316	0.0000	0.0119
6311	K5 = -1/-6	H6 = 0/9	2.1655	2.1660	4.7244	4.7253	0.0000	0.0135
6312	K5 = -1/-6	H6 = 0/10	2.3623	2.3628	5.1181	5.1191	0.0000	0.0140
6313	K5 = -1/-6	H6 = 0/10	2.5592	2.5597	5.5118	5.5128	0.0000	0.0145
6314	K5 = -1/-6	H6 = 0/10	2.7560	2.7565	5.9055	5.9065	0.0000	0.0164
6315	K5 = -1/-6	H6 = 0/10	2.9529	2.9534	6.2992	6.3002	0.0000	0.0169
6316	K5 = -1/-6	H6 = 0/10	3.1497	3.1502	6.6929	6.6939	0.0000	0.0174
6317	K5 = -1/-7	H6 = 0/10	3.3466	3.3472	7.0866	7.0876	0.0000	0.0189
6318	K5 = -1/-7	H6 = 0/12	3.5434	3.5440	7.4803	7.4815	0.0000	0.0164
6319	K5 = -1/-7	H6 = 0/12	3.7403	3.7409	7.8740	7.8752	0.0000	0.0168
6320	K5 = -1/-7	H6 = 0/12	3.9371	3.9377	8.4646	8.4658	0.0000	0.0176
6321	M5 = -5/-11	H6 = 0/12	4.1344	4.1350	8.8583	8.8595	0.0000	0.0180
6322	M5 = -5/-11	H6 = 0/12	4.3312	4.3318	9.4488	9.4500	0.0000	0.0188

The values listed in the Mounted Axial End Play columns are the calculated maximum and minimum values. If the minimum values is measured, then the dimensions of the shaft and housing should be examined because the bearing may be preloaded.

If the maximum value is measured, then the shaft and housing dimensions should be checked because the bearing may be too lose which could result in creep and excessive heat generation and eventual bearing failure.

Recommended Fitting Practice for Electric Motors (Ball Bearings)

BEARING DESCRIPTION	SHAFT TOLERANCE (0.0001 in)	HOUSING TOLERANCE (0.0001 in)	SHAFT SIZE (inches)		HOUSING SIZE (inches)		MOUNTED AXIAL END PLAY (inches)	
	FIT = MIN/MAX	FIT = MIN/MAX	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
6205	K5 = -1/-5	H6 = 0/7	0.9844	0.9848	2.0472	2.0479	0.0000	0.0067
6206	K5 = -1/-5	H6 = 0/7	1.1812	1.1816	2.4409	2.4416	0.0000	0.0073
6207	K5 = -1/-5	H6 = 0/7	1.3781	1.3785	2.8346	2.8353	0.0000	0.0086
6208	K5 = -1/-5	H6 = 0/7	1.5749	1.5753	3.1496	3.1503	0.0000	0.0089
6209	K5 = -1/-5	H6 = 0/9	1.7718	1.7722	3.3465	3.3474	0.0000	0.0096
6210	K5 = -1/-5	H6 = 0/9	1.9686	1.9690	3.5433	3.5442	0.0000	0.0096
6211	K5 = -1/-6	H6 = 0/9	2.1655	2.1660	3.9370	3.9379	0.0000	0.0112
6212	K5 = -1/-6	H6 = 0/9	2.3623	2.3628	4.3307	4.3316	0.0000	0.0118
6213	K5 = -1/-6	H6 = 0/9	2.5592	2.5597	4.7244	4.7253	0.0000	0.0130
6214	K5 = -1/-6	H6 = 0/10	2.7560	2.7565	4.9213	4.9223	0.0000	0.0135
6215	K5 = -1/-6	H6 = 0/10	2.9529	2.9534	5.1181	5.1191	0.0000	0.0148
6216	K5 = -1/-6	H6 = 0/10	3.1497	3.1502	5.5118	5.5128	0.0000	0.0151
6217	K5 = -1/-7	H6 = 0/10	3.3466	3.3472	5.9055	5.9065	0.0000	0.0167
6218	K5 = -1/-7	H6 = 0/10	3.5434	3.5440	6.2992	6.3002	0.0000	0.0173
6219	K5 = -1/-7	H6 = 0/10	3.7403	3.7409	6.6929	6.6939	0.0000	0.0180
6220	K5 = -1/-7	H6 = 0/10	3.9371	3.9377	7.0866	7.0876	0.0000	0.0186
6221	M5 = -5/-11	H6 = 0/12	4.1344	4.1350	7.4803	7.4815	0.0000	0.0191
6222	M5 = -5/-11	H6 = 0/12	4.3312	4.3318	7.8740	7.8752	0.0000	0.0184

The values listed in the Mounted Axial End Play columns are the calculated maximum and minimum values. If the minimum values is measured, then the dimensions of the shaft and housing should be examined because the bearing may be preloaded.

If the maximum value is measured, then the shaft and housing dimensions should be checked because the bearing may be too lose which could result in creep and excessive heat generation and eventual bearing failure.

Recommended Fitting Practice for Electric Motors (Cylindrical Roller Bearings)

BEARING DESCRIPTION	SHAFT TOLERANCE (0.0001 in)	HOUSING TOLERANCE (0.0001 in)	SHAFT SIZE (inches)		HOUSING SIZE (inches)	
	FIT = MIN/MAX	FIT = MIN/MAX	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
NU204	K5 = 1/4	K5 = 0/6	0.7875	0.7878	1.8504	1.8510
NU205	K5 = 1/4	K5 = 0/7	0.9843	0.9847	2.0472	2.0480
NU206	K5 = 1/4	K5 = 0/7	1.1812	1.1815	2.4409	2.4417
NU207	K5 = 1/5	K5 = 0/7	1.3780	1.3785	2.8346	2.8354
NU208	K5 = 1/5	K5 = 0/7	1.5749	1.5753	3.1496	3.1504
NU209	M5 = 1/8	M5 = 0/9	1.7720	1.7724	3.3465	3.3473
NU210	M5 = 4/8	M5 = 0/9	1.9689	1.9693	3.5433	3.5442
NU211	M5 = 4/9	M5 = 0/9	2.1658	2.1663	3.9370	3.9379
NU212	M5 = 4/9	M5 = 0/9	2.3626	2.3631	4.3307	4.3316
NU213	M5 = 4/9	M5 = 0/9	2.5595	2.5600	4.7244	4.7253
NU214	M5 = 4/9	M5 = 0/10	2.7563	2.7569	4.9213	4.9222
NU215	M5 = 4/9	M5 = 0/10	2.9532	2.9537	5.1181	5.1191
NU216	M5 = 4/9	M5 = 0/10	3.1500	3.1506	5.5118	5.5128
NU217	M5 = 5/11	M5 = 0/10	3.3470	3.3476	5.9055	5.9065
NU218	M5 = 5/11	M5 = 0/10	3.5438	3.5444	6.2992	6.3002
NU219	M5 = 5/11	M5 = 0/10	3.7407	3.7413	6.6929	6.6939
NU220	M5 = 5/11	M5 = 0/10	3.9375	3.9381	7.0866	7.0876
NU221	M6 = 5/14	M6 = 0/11	4.1344	4.1352	7.4803	7.4815
NU222	M6 = 5/14	M6 = 0/11	4.3312	4.3321	7.8740	7.8752
NU224	M6 = 5/14	M6 = 0/11	4.7249	4.7258	8.4646	8.4657
NU226	M6 = 6/16	M6 = 0/11	5.1187	5.1197	9.0551	9.0563
NU228	M6 = 6/16	M6 = 0/11	5.5124	5.5134	9.8425	9.8437
NU230	N6 = 11/21	N6 = 0/13	5.9066	5.9076	10.6299	10.6312
NU232	N6 = 11/21	N6 = 0/13	6.3003	6.3013	11.4173	11.4186
NU234	N6 = 11/21	N6 = 0/13	6.6940	6.6950	12.2047	12.2060
NU236	N6 = 11/21	N6 = 0/14	7.0877	7.0887	12.5984	12.5998
NU238	N6 = 12/24	N6 = 0/14	7.4815	7.4827	13.3858	13.3872
NU240	N6 = 12/24	N6 = 0/14	7.8752	7.8764	14.1732	14.1746
NU244	P6 = 20/31	P6 = 0/14	8.6634	8.6645	15.7480	15.7494
NU248	P6 = 20/31	P6 = 0/16	9.4508	9.4519	17.3228	17.3244
NU252	P6 = 22/35	P6 = 0/16	10.2384	10.2397	18.8976	18.8992
NU256	P6 = 22/35	P6 = 0/16	11.0258	11.0271	19.6850	19.6866
NU260	P6 = 22/35	P6 = 0/17	11.8132	11.8145	21.2598	21.2616
NU264	P6 = 24/39	P6 = 0/17	12.6009	12.6023	22.8346	22.8364

Recommended Fitting Practice for Electric Motors (Cylindrical Roller Bearings)

BEARING DESCRIPTION	SHAFT TOLERANCE (0.0001 in)	HOUSING TOLERANCE (0.0001 in)	SHAFT SIZE (inches)		HOUSING SIZE (inches)	
	FIT = MIN/MAX	FIT = MIN/MAX	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
NU304	K5 = 1/4	H6 = 0/7	0.7875	0.7878	2.0472	2.0480
NU305	K5 = 1/4	H6 = 0/7	0.9843	0.9847	2.4409	2.4417
NU306	K5 = 1/4	H6 = 0/7	1.1812	1.1815	2.8346	2.8354
NU307	K5 = 1/5	H6 = 0/7	1.3780	1.3785	3.1496	3.1504
NU308	K5 = 1/5	H6 = 0/9	1.5749	1.5753	3.5433	3.5442
NU309	M5 = 1/8	H6 = 0/9	1.7720	1.7724	3.9370	3.9379
NU310	M5 = 4/8	H6 = 0/9	1.9689	1.9693	4.3307	4.3316
NU311	M5 = 4/9	H6 = 0/9	2.1658	2.1663	4.7244	4.7253
NU312	M5 = 4/9	H6 = 0/10	2.3626	2.3631	5.1181	5.1191
NU313	M5 = 4/9	H6 = 0/10	2.5595	2.5600	5.5118	5.5128
NU314	M5 = 4/9	H6 = 0/10	2.7563	2.7569	5.9055	5.9065
NU315	M5 = 4/9	H6 = 0/10	2.9532	2.9537	6.2992	6.3002
NU316	M5 = 4/9	H6 = 0/10	3.1500	3.1506	6.6929	6.6939
NU317	M5 = 5/11	H6 = 0/10	3.3470	3.3476	7.0866	7.0876
NU318	M5 = 5/11	H6 = 0/11	3.5438	3.5444	7.4803	7.4815
NU319	M5 = 5/11	H6 = 0/11	3.7407	3.7413	7.8740	7.8752
NU320	M5 = 5/11	H6 = 0/11	3.9375	3.9381	8.4646	8.4657
NU321	M6 = 5/14	H6 = 0/11	4.1344	4.1352	8.8583	8.8594
NU322	M6 = 5/14	H6 = 0/11	4.3312	4.3321	9.4488	9.4500
NU324	M6 = 5/14	H6 = 0/13	4.7249	4.7258	10.2362	10.2375
NU326	M6 = 6/16	H6 = 0/13	5.1187	5.1197	11.0236	11.0249
NU328	M6 = 6/16	H6 = 0/13	5.5124	5.5134	11.8110	11.8123
NU330	N6 = 11/21	H6 = 0/14	5.9066	5.9076	12.5984	12.5998
NU332	N6 = 11/21	H6 = 0/14	6.3003	6.3013	13.3858	13.3872
NU334	N6 = 11/21	H6 = 0/14	6.6940	6.6950	14.1732	14.1746
NU336	N6 = 11/21	H6 = 0/14	7.0877	7.0887	14.9606	14.9620
NU338	N6 = 12/24	H6 = 0/14	7.4815	7.4827	15.7480	15.7494
NU340	N6 = 12/24	H6 = 0/16	7.8752	7.8764	16.5354	16.5370
NU344	P6 = 20/31	H6 = 0/16	8.6634	8.6645	18.1102	18.1118
NU348	P6 = 20/31	H6 = 0/16	9.4508	9.4519	19.6850	19.6866