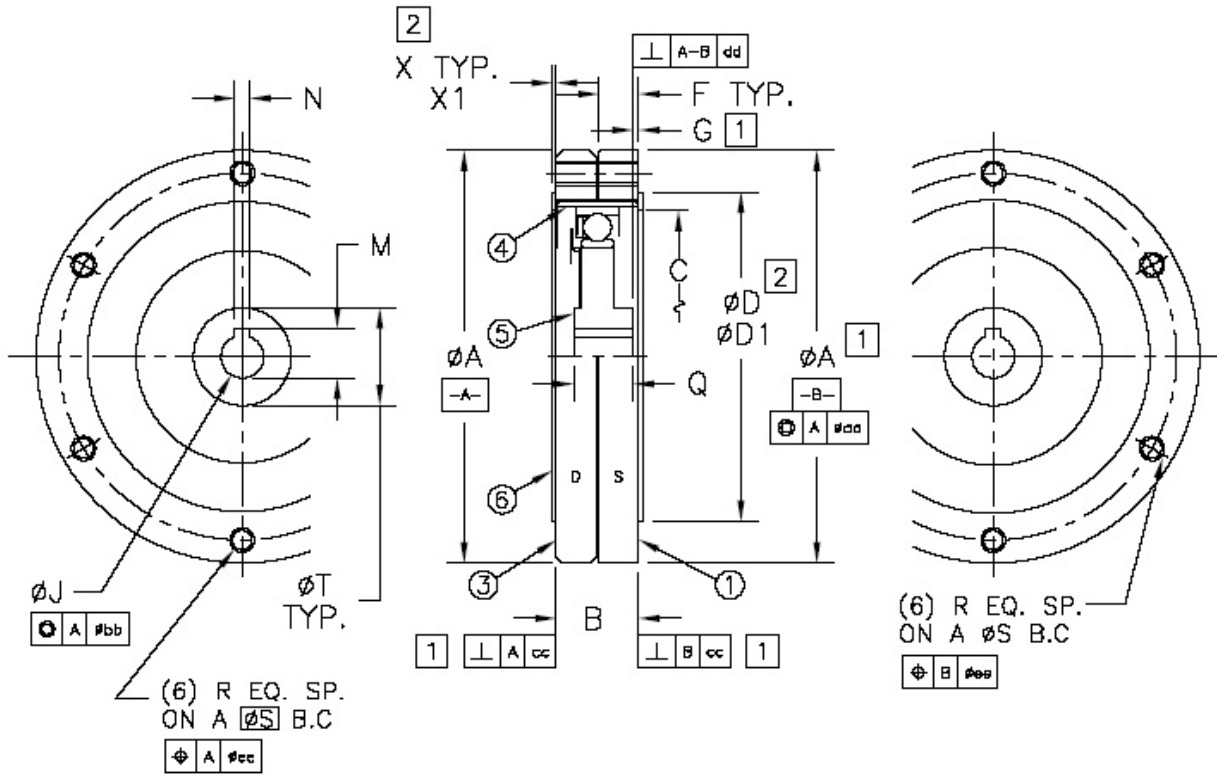
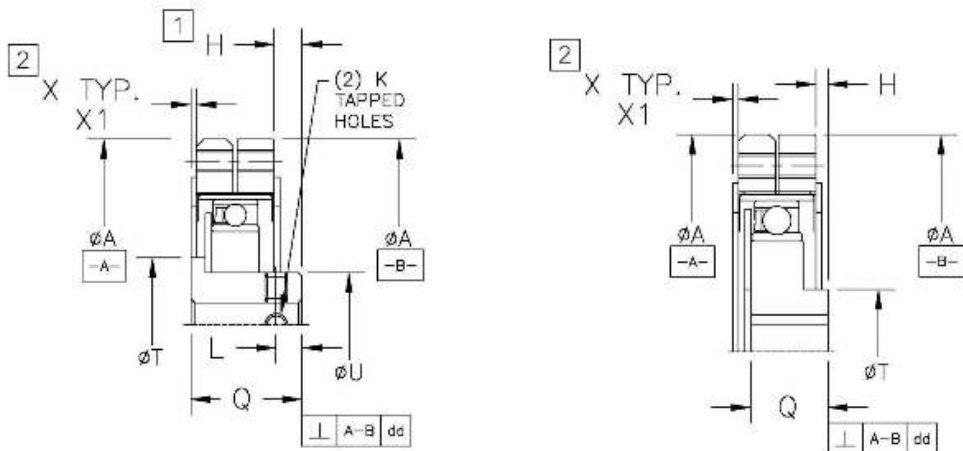




N-HDF-M1 Installation Drawing



Size 14 and 20





Dimensions: Millimeters

	14	20	25	32	40	50
ØA	50 ⁰ _{-.015}	70 ⁰ _{-.018}	85 ⁰ _{-.023}	110 ⁰ _{-.025}	135 ⁰ _{-.025}	170 ⁰ _{-.025}
B	10.7 ± .15	12.7 ± .15	17 ± .25	21 ± .25	27 ± .30	25 ± .30
ØC	32 ± .51	47 ± .51	59 ± .51	77 ± .51	95 ± .51	119 ± .51
ØD	39.5 ± .51	54 ± .51	69.4 ± .51	92.1 ± .51	111.1 ± .51	134.4 ± .51
ØD1	40.2 ± .51	54.7 ± .51	70.2 ± .51	92.9 ± .51	111.9 ± .51	135.2 ± .51
F	5 ± .1	6 ± .1	8 ± .2	10 ± .2	13 ± .2	16 ± .2
G	-	-	.38 ± .38	.94 ± .38	1.8 ± .38	1.12 ± .38
H	3.76 ± .38	.94 ± .38	-	-	-	-
ØJ	6 ^{+0.012} ₀	9 ^{+0.015} ₀	11 ^{+0.018} ₀	14 ^{+0.020} ₀	14 ^{+0.020} ₀	19 ^{+0.020} ₀
K	M3 x 0.5	-	-	-	-	-
L	3.5 ± .38	-	-	-	-	-
ØM	-	10.4 ⁺¹ ₀	12.8 ⁺¹ ₀	16.3 ⁺¹ ₀	16.3 ⁺¹ ₀	21.8 ⁺¹ ₀
N	-	3 ± .0125	4 ± .013	5 ± .013	5 ± .013	6 ± .013
Q	15.0	11.4	12.8	15.6	19.4	23.2
R	M3 x 0.5	M4 x 0.7	M5 x 0.8	M6 x 1.0	M8 x 1.25	M10 x 1.5
S	44	60	75	100	120	150
ØT	18	20	28	36	32	50
ØU	14	-	-	-	-	-
ØV	-	-	-	-	-	135 ⁰ _{-.025}
W	-	-	-	-	-	4.52 ± .1
X	.81 ± .13	.81 ± .13	.81 ± .13	.81 ± .13	1.57 ± .13	1.57 ± .13
X1	.94 ⁺¹³ ₀	.94 ⁺¹³ ₀	.94 ⁺¹³ ₀	.94 ⁺¹³ ₀	1.70 ⁺¹³ ₀	1.70 ⁺¹³ ₀
aa	.050	.070	.076	.078	.088	.098
bb	.013	.013	.015	.015	.018	.020
cc	.018	.018	.023	.025	.025	.025
dd	.010	.010	.013	.013	.013	.015
ee	.25	.25	.25	.25	.25	.25
Weight kg (lb)	.09 (.2)	.32 (.7)	.59 (1.3)	1.04 (2.3)	2 (4.4)	3.31 (7.3)

Contact NAC Harmonic Drive For Certified Engineering Drawings.



Size	Ratio	Input Speed 3000rpm			Input Speed 1500rpm			Input Speed 1000rpm		
		Output Torque	Output Speed	Input Power	Output Torque	Output Speed	Input Power	Output Torque	Output Speed	Input Power
		Nm	rpm	kw	Nm	rpm	kw	Nm	rpm	kw
14	64	3	46.9	0.023	3	23.4	0.012	3.5	15.6	0.009
	80	3.5	37.5	0.022	3.5	18.8	0.011	4	12.5	0.009
17	66	8	45.5	0.060	8	22.7	0.032	8	15.2	0.021
	80	8	37.5	0.051	8	18.8	0.026	10	12.5	0.022
	102	10	29.4	0.051	10	14.7	0.026	12	9.8	0.021
20	80	15	37.5	0.096	15	18.8	0.049	15	12.5	0.033
	84	15	35.7	0.092	15	17.9	0.047	15	11.9	0.031
	100	18	30	0.092	20	15	0.052	22	10	0.038
	120	20	25	0.085	22.5	12.5	0.049	25	8.3	0.036
	126	20	23.8	0.081	22.5	11.9	0.047	25	7.9	0.034
25	80	25	37.5	0.160	25	18.8	0.082	27.5	12.5	0.060
	100	30	30	0.154	33	15	0.086	35	10	0.061
	120	32	25	0.137	35	12.5	0.076	38	8.3	0.055
	150	36	20	0.134	40	10	0.070	43.5	6.7	0.051
	160	36	18.8	0.126	40	9.4	0.066	40	6.3	0.043
32	80	55	37.5	0.353	55	18.8	0.180	55	12.5	0.120
	100	70	30	0.359	77	15	0.202	80	10	0.140
	135	80	22.2	0.332	88	11.1	0.170	97	7.4	0.125
	160	85	18.8	0.297	93.5	9.4	0.153	102	6.3	0.112
	200	85	15	0.238	93.5	7.5	0.122	102	5	0.089
40	80	100	37.5	0.641	100	18.8	0.328	100	12.5	0.218
	84	100	35.7	0.610	100	17.9	0.312	100	11.9	0.208
	100	120	30	0.615	132	15	0.346	135	10	0.236
	125	135	24	0.554	150	12	0.314	150	8	0.209
	160	150	18.8	0.524	165	9.4	0.271	165	6.3	0.181
	168	150	17.9	0.499	165	8.9	0.256	165	6	0.173
50	80	180	37.5	1.154	180	18.8	0.59	180	12.5	0.393
	100	220	30	1.128	240	15	0.628	245	10	0.428
	120	250	25	1.068	275	12.5	0.6	280	8.3	0.406
	150	280	20	1.044	310	10	0.544	320	6.7	0.374
	160	280	18.8	0.979	310	9.4	0.509	320	6.3	0.352
	200	280	17.9	0.783	310	7.5	0.406	320	5	0.279
65	80				480	18.8	1.420	480	12.5	1.047
	100				540	15	1.278	605	10	1.055
	135				625	11.2	1.148	700	7.4	0.904
	160				650	9.4	1.041	715	6.3	0.786
	200				650	7.5	0.833	715	5	0.624
80	80				900	18.8	2.663	900	12.5	1.963
	100				950	15	2.249	990	10	1.728
	125				1000	12	1.985	1100	8	1.536
	168				1000	8.9	1.57	1100	6	1.151
	200				1000	7.5	1.374	1100	5	0.960

Note: Output Torque ratings are based on an L-10 life of 5000 hours.

Contact NAC Harmonic Drive for information on non-standard ratios and high torque units.