

Allowable Overhung & Thrust Load

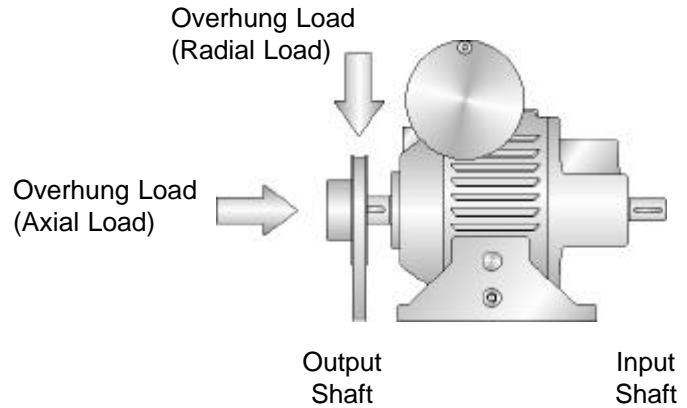
◆ For applications using chain, belt, or pinion connection, please make sure the overhung load exerted on input and output shafts do not exceed the permissible values. This would prevent the reduction in service life caused by bearing damage.

⇒ **Overhung load (lbs) can be calculated using the following formula:**

$$OHL = \frac{126,000 \times hp \times Fc}{\Phi_{\text{sprocket pitch in inch}}}$$

Connection Coefficient - Fc

Connection Type	Fc
Chain	1
Gear or Pinion	1.25
V-Belt	1.5
Flat-Belt	2.5



- ◆ If the calculated application OHL is greater than the allowable OHL, select a larger frame size with allowable OHL greater than the calculated application OHL.
- ◆ For high frequency start/stop applications, use larger service factor (S.F.).
- ◆ Please consult factory for any special application.

Allowable Overhung Load (at the middle point of the shafts) & Allowable Thrust Load

Variator Frame Size	DARALI Disco Variators				w/ R Type Gearbox	
	Overhung Load		Thrust Load		OHL on Output Shaft	
	Input	Output	Input	Output	2.5:1	5:1
05A / 05AV	88	132	77	110	242	242
1A / 1AV	110	220	96	220	374	374
2A / 2AV	165	286	136	286	726	726
3A / 3AV	330	418	308	374	1057	1057
5A / 5AV	330	418	308	374	1057	1057

- Data in this chart is applicable for stand-alone variators or variators with "R" style gearbox

Allowable Overhung Load At Shaft Mid-Point

Variator Frame Size	Input Shaft OHL	Output Shaft Overhung Load																			
		Based On Output RPM																			
		~1	2	3	4	5	10	15	20	25	30	35	40	50	60	80	100	125	150	200	
w/ Single Stage Cycloidal Reducer (6:1 ~ 87:1)																					
B10-05AC	88	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1149	1080	981	
B10-1AC	110	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1213	1149	1080	981	
B11-1AC	110	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1940	1840	1670	1550	1440	1350	1230	
B13-2AC	165	3310	3310	3310	3310	3310	3310	3310	3310	3090	2870	2700	2560	2450	2270	2140	1940	1810	1680	1580	1430
B13-3AC	330	3310	3310	3310	3310	3310	3310	3310	3310	3090	2870	2700	2560	2450	2270	2140	1940	1810	1680	1580	1430
B14-3AC	330	3600	3600	3600	3600	3600	3600	3500	3310	3310	3310	3220	3090	2890	2730	2510	2340	2190	2070	1903	
B16-3AC	330	4960	4960	4960	4960	4960	4960	4830	4410	4410	4370	4140	3970	3700	3480	3150	2930	2710	2560	2310	
B16-5AC	330	4960	4960	4960	4960	4960	4960	4830	4410	4410	4370	4140	3970	3700	3480	3150	2930	2710	2560	2310	
B17-5AC	330	6630	6630	6630	6630	6630	6630	6510	5920	5490	5170	4910	4700	4360	4100	3730	3460	3210	3020	2750	
w/ Double Stage Cycloidal Reducer (102:1 ~ 7569:1)																					
B1310-05AC	88	3310	3310	3310	3310	3310	3310	3310	-	-	-	-	-	-	-	-	-	-	-	-	
B1611-1AC	110	4960	4960	4960	4960	4960	4960	4830	-	-	-	-	-	-	-	-	-	-	-	-	
B1813-2AC	165	9380	9380	9380	9380	9380	9380	8750	-	-	-	-	-	-	-	-	-	-	-	-	
B1813-3AC	330	9380	9380	9380	9380	9380	9380	8750	-	-	-	-	-	-	-	-	-	-	-	-	
B2013-3AC	330	18900	18900	18900	18900	18900	18900	18900	-	-	-	-	-	-	-	-	-	-	-	-	
B2116-5AC	330	23400	23400	23400	23400	23400	23400	22200	-	-	-	-	-	-	-	-	-	-	-	-	

- Data in this chart is applicable for variators w/ cycloidal reducers output