

Unimotor fm to Unimotor UM comparison charts

Red indicates increase
Blue indicates decrease

		Unimotor UM to Unimotor fm standard length comparison																						
		75				95					115					142					190			
Unimotor UM		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D
Length unbraked motor (mm)		211.0	241.0	271.0	301.0	222.0	252.0	282.0	312.0	342.0	242.0	272.0	302.0	332.0	362.0	225.0	255.0	285.0	315.0	345.0	273.0	327.0	381.0	435.0
Length braked motor (mm)		241.0	271.0	301.0	331.0	252.0	282.0	312.0	342.0	372.0	272.0	302.0	332.0	363.0	392.0	285.0	315.0	345.0	375.0	405.0	327.0	381.0	435.0	489.0
Unimotor fm		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	B	D	F	H
Length unbraked motor (mm)		209.0	239.0	269.0	299.0	228.0	258.0	288.0	318.0	348.0	246.0	276.0	306.0	336.0	366.0	227.0	257.0	287.0	317.0	347.0	265.0	318.0	372.0	426.0
Length braked motor (mm)		254.0	284.0	314.0	344.0	273.0	303.0	333.0	363.0	393.0	291.0	321.0	351.0	381.0	411.0	272.0	302.0	332.0	362.0	392.0	345.0	399.0	453.0	507.0
Difference																								
Length unbraked motor (mm)		-2.0	-2.0	-2.0	-2.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	-8.0	-9.0	-9.0	-9.0
Length braked motor (mm)		13.0	13.0	13.0	13.0	21.0	21.0	21.0	21.0	21.0	19.0	19.0	19.0	18.0	19.0	-13.0	-13.0	-13.0	-13.0	-13.0	18.0	18.0	18.0	18.0
Change in unbraked length (%)		-0.9%	-0.8%	-0.7%	-0.7%	2.7%	2.4%	2.1%	1.9%	1.8%	1.7%	1.5%	1.3%	1.2%	1.1%	0.9%	0.8%	0.7%	0.6%	0.6%	-2.9%	-2.8%	-2.4%	-2.1%
Change in braked length (%)		5.4%	4.8%	4.3%	3.9%	8.3%	7.4%	6.7%	6.1%	5.6%	7.0%	6.3%	5.7%	5.0%	4.8%	-4.6%	-4.1%	-3.8%	-3.5%	-3.2%	5.5%	4.7%	4.1%	3.7%

Red indicates increase
Blue indicates decrease

		Unimotor UM to Unimotor fm optional flange length comparison																						
		75				95					115					142					190 option not available			
Unimotor UM		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E				
Length unbraked motor (mm)		211.0	241.0	271.0	301.0	222.0	252.0	282.0	312.0	342.0	242.0	272.0	302.0	332.0	362.0	225.0	255.0	285.0	315.0	345.0				
Length braked motor (mm)		241.0	271.0	301.0	331.0	252.0	282.0	312.0	342.0	372.0	272.0	302.0	332.0	363.0	392.0	285.0	315.0	345.0	375.0	405.0				
Unimotor fm		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E				
Length unbraked motor (mm)		194.0	224.0	254.0	284.0	203.0	233.0	263.0	293.0	323.0	214.0	244.0	274.0	304.0	334.0	274.0	304.0	334.0	364.0	394.0				
Length braked motor (mm)		239.0	269.0	299.0	329.0	248.0	278.0	308.0	338.0	368.0	259.0	289.0	319.0	349.0	379.0	319.0	349.0	379.0	409.0	439.0				
Difference																								
Length unbraked motor (mm)		-17.0	-17.0	-17.0	-17.0	-19.0	-19.0	-19.0	-19.0	-19.0	-28.0	-28.0	-28.0	-28.0	-28.0	49.0	49.0	49.0	49.0	49.0				
Length braked motor (mm)		-2.0	-2.0	-2.0	-2.0	-4.0	-4.0	-4.0	-4.0	-4.0	-13.0	-13.0	-13.0	-14.0	-13.0	34.0	34.0	34.0	34.0	34.0				
Change in unbraked length (%)		-8.1%	-7.1%	-6.3%	-5.6%	-8.6%	-7.5%	-6.7%	-6.1%	-5.6%	-11.6%	-10.3%	-9.3%	-8.4%	-7.7%	21.8%	19.2%	17.2%	15.6%	14.2%				
Change in braked length (%)		-0.8%	-0.7%	-0.7%	-0.6%	-1.6%	-1.4%	-1.3%	-1.2%	-1.1%	-4.8%	-4.3%	-3.9%	-3.9%	-3.3%	11.9%	10.8%	9.9%	9.1%	8.4%				

Red indicates increase

Blue indicates decrease

		Unimotor UM to Unimotor fm inertia comparison																						
		75				95					115					142					190			
Unimotor UM		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D
High Inertia (kgcm2)		1.2	1.6	2.1	2.5	3.5	4.5	5.6	6.7	7.8	9.7	12.0	14.3	16.6	18.8	21.6	28.0	34.3	40.7	47.0	93.5	140.5	187.5	234.5
Standard Inertia (kgcm2)		0.6	1.0	1.5	1.9	1.4	2.5	3.6	4.7	5.8	3.2	5.5	7.8	10.0	12.3	7.8	14.1	20.5	26.8	33.1	50.0	97.0	144.0	191.0
Unimotor fm		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	B	D	F	H
High Inertia (kgcm2)		1.1	1.5	2.0	2.4	3.7	4.8	5.9	7.0	8.1	9.5	11.8	14.4	16.6	18.9	23.3	29.9	36.5	43.1	49.7	93.6	130.9	168.3	205.7
Standard Inertia (kgcm2)		0.7	1.2	1.6	2.0	1.8	2.9	4.0	5.1	6.2	4.4	6.7	9.0	11.4	13.8	9.0	15.6	22.2	28.8	35.4	48.4	85.7	123.1	160.5
Difference																								
Change in High inertia (kgcm2)		-0.1	-0.1	-0.1	-0.1	0.2	0.3	0.3	0.3	0.3	-0.2	-0.2	0.1	0.0	0.1	1.7	1.9	2.2	2.4	2.7	0.1	-9.6	-19.2	-28.8
Change in Std inertia (kgcm2)		0.1	0.2	0.1	0.1	0.4	0.4	0.4	0.4	0.4	1.2	1.2	1.2	1.4	1.5	1.2	1.5	1.7	2.0	2.3	-1.6	-11.3	-20.9	-30.5
Change in inertia (%)		-8.3%	-6.3%	-4.8%	-4.0%	5.7%	6.7%	5.4%	4.5%	3.8%	-2.1%	-1.7%	0.7%	0.0%	0.5%	7.9%	6.8%	6.4%	5.9%	5.7%	0.1%	-6.8%	-10.2%	-12.3%
Change in inertia (%)		16.7%	20.0%	6.7%	5.3%	28.6%	16.0%	11.1%	8.5%	6.9%	37.5%	21.8%	15.4%	14.0%	12.2%	15.4%	10.6%	8.3%	7.5%	6.9%	-3.2%	-11.6%	-14.5%	-16.0%

Red indicates increase

Green indicates improvements

		Unimotor UM to Unimotor fm shaft dimension comparison																						
		75				95					115					142					190			
Unimotor UM		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D
Shaft diameter (mm)		11.0	14.0	14.0	14.0	14.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	32.0	32.0	32.0	32.0
Shaft length (mm)		23.0	30.0	30.0	30.0	30.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	58.0	58.0	58.0	58.0
Unimotor fm		A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	B	D	F	H
Shaft diameter Std (mm)		11.0	14.0	14.0	14.0	14.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	32.0	32.0	32.0	32.0
Optional Shaft diameter Max (mm)		19.0	19.0	19.0	19.0	22.0	22.0	22.0	22.0	22.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	42.0	42.0	42.0	42.0
Shaft length (mm)		23.0	30.0	30.0	30.0	30.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	80.0	80.0	80.0	80.0
Difference																								
Shaft diameter Std (mm)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Optional Shaft diameter Max (mm)		8.0	5.0	5.0	5.0	8.0	3.0	3.0	3.0	3.0	13.0	13.0	13.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	10.0	10.0	10.0	10.0
Shaft length (mm)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	22.0	22.0	22.0
Change in diameter Std (%)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Change in optional diameter Max (%)		72.7%	35.7%	35.7%	35.7%	57.1%	15.8%	15.8%	15.8%	15.8%	68.4%	68.4%	68.4%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	31.3%	31.3%	31.3%	31.3%
Change in length (%)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	37.9%	37.9%	37.9%	37.9%

Red indicates decrease
Green indicates improvements

Unimotor UM to Unimotor fm brake torque comparison																											
75				95					115					142					190								
Unimotor UM				Unimotor fm					Unimotor UM					Unimotor fm					Unimotor UM								
A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	A	B	C	D	
Static brake torque (Nm)	2.0	2.0	2.0	2.0	6.0	6.0	6.0	6.0	6.0	12.0	12.0	12.0	12.0	12.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	60.0	60.0				
Optional Static brake torque Max (Nm)	4.0	4.0	4.0	4.0	11.0	11.0	11.0	11.0	11.0	18.0	18.0	18.0	18.0	18.0	38.0	38.0	38.0	38.0	38.0	100.0	100.0	100.0	100.0				
Difference																											
Static brake torque (Nm)	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0	5.0	-1.0	-1.0	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0	0.0				
Optional Static brake torque Max (Nm)	2.0	2.0	2.0	2.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	18.0	18.0	18.0	18.0	18.0	60.0	60.0	40.0	40.0				
Change in torque (%)	0.0%	0.0%	0.0%	0.0%	83.3%	83.3%	83.3%	83.3%	83.3%	-8.3%	-8.3%	-8.3%	-8.3%	-8.3%	-10.0%	-10.0%	-10.0%	-10.0%	-10.0%	-5.0%	-5.0%	0.0%	0.0%				
Change in optional torque Max (%)	100.0%	100.0%	100.0%	100.0%	83.3%	83.3%	83.3%	83.3%	83.3%	50.0%	50.0%	50.0%	50.0%	50.0%	90.0%	90.0%	90.0%	90.0%	90.0%	150.0%	150.0%	66.7%	66.7%				

Unimotor fm to Unimotor UM comparison charts

Red indicates increase
Blue indicates decrease

Unimotor UM to Unimotor fm maximum height comparison									
75		95		115		142		190	
Unimotor UM		Unimotor fm		Unimotor UM		Unimotor fm		Unimotor UM	
Connection type C	126.0	146.0	166.0	193.0	260.0				
Standard Connection type V	119.5	132.5	150.0	177.0	233.0				
Optional Connection type A	119.0	132.0	149.5	176.5	246.0				
Optional Connection type B	127.0	140.0	157.5	184.5	253.5				
Optional Connection type C	127.0	140.0	157.5	184.5	253.5				
Difference									
Standard Connection type V	-6.5	-13.5	-16.0	-16.0	-27.0				
Optional Connection type A	-7.0	-14.0	-16.0	-16.0	-27.0				
Optional Connection type B	1.0	-6.0	-8.5	-8.5	-6.5				
Optional Connection type C	1.0	-6.0	-8.5	-8.5	-6.5				
Change in (%)	-5.2%	-9.2%	-9.6%	-8.3%	-10.4%				
Change in (%)	-5.6%	-9.6%	-9.9%	-8.5%	-5.4%				
Change in (%)	0.8%	-4.1%	-5.1%	-4.4%	-2.5%				
Change in (%)	0.8%	-4.1%	-5.1%	-4.4%	-2.5%				

Unimotor UM to Unimotor fm bearing radial load comparison

	75	95	115	142	190
Unimotor UM					
Radial load (Nm)	399.0	655.0	530.0	431.0	1357.0
Unimotor fm					
Radial load (Nm)	653.0	703.0	1321.0	1256.0	1402.0
Difference					
Radial load (Nm)	254.0	48.0	791.0	825.0	45.0
Change in Radial load (%)	63.7%	7.3%	149.2%	191.4%	3.3%

Unimotor UM to Unimotor fm bearing axial load comparison

	75	95	115	142	190
Unimotor UM					
Axial load (Nm)	246.0	479.0	361.0	610.0	653.0
Unimotor fm					
Axial load (Nm)	479.0	526.0	892.0	892.0	945.0
Difference					
Axial load (Nm)	233.0	47.0	531.0	282.0	292.0
Change in Axial load (%)	94.7%	9.8%	147.1%	46.2%	44.7%

Unimotor UM to Unimotor fm shaft push back comparison

	75	95	115	142	190
Unimotor UM					
Push back (Nm)	246.0	632.0	395.0	610.0	653.0
Unimotor fm					
Push back (Nm)	948.0	866.0	965.0	965.0	945.0
Difference					
Push back (Nm)	702.0	234.0	570.0	355.0	292.0
Change in Push back (%)	285.4%	37.0%	144.3%	58.2%	44.7%