

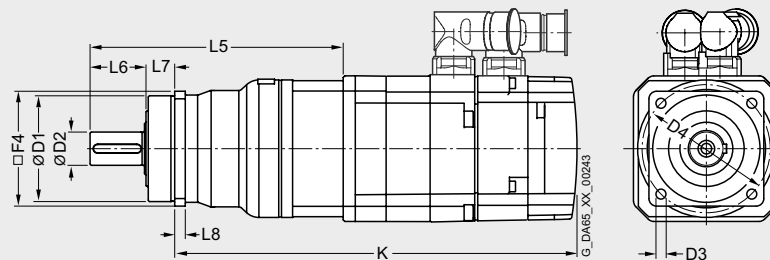
Synchronous motors

Dimension drawings

1FK7 Compact motors without/with DRIVE-CLiQ with SP+ planetary gearbox, single-stage

For motor			Dimensions in mm (in)										Encoder system:					
Shaft height	Type	F4	Planetary gearbox Type	D1	D2	D3	D4	L5	L6	L7	L8	Resolver		Incremental encoder		Absolute encoder		
												Without brake K	With brake K	Without brake K	With brake K	Without brake K	With brake K	
1FK7 Compact with SP+ planetary gearbox, single-stage, type IM B5, natural cooling, with connector, without/with brake																		
28	1FK7022-5	62 (2.44)	SP060S-MF1	60 (2.36)	16 (0.63)	6 (0.24)	68 (2.68)	137 (5.40)	28 (1.10)	20 (0.79)	6 (0.24)	242 (9.53)	264 (10.40)	267 (10.52)	289 (11.39)	267 (10.52)	289 (11.39)	
36	1FK7032-5	62 (2.44)	SP060S-MF1	60 (2.36)	16 (0.63)	6 (0.24)	68 (2.68)	142 (5.59)	28 (1.10)	20 (0.79)	6 (0.24)	244 (9.61)	269 (10.60)	269 (10.60)	294 (11.58)	269 (10.60)	294 (11.58)	
48	1FK7040-5	76 (2.99)	SP075S-MF1	70 (2.76)	22 (0.87)	7 (0.28)	85 (3.35)	168 (6.62)	36 (1.42)	20 (0.79)	7 (0.28)	246 (9.69)	275 (10.84)	267 (10.52)	296 (11.66)	275 (10.84)	304 (11.98)	
	1FK7042-5											274 (10.80)	303 (11.94)	294 (11.58)	323 (12.73)	303 (11.94)	332 (13.08)	
63	1FK7060-5	101 (3.98)	SP100S-MF1	90 (3.55)	32 (1.26)	9 (0.35)	120 (4.73)	217 (8.55)	58 (2.29)	30 (1.18)	10 (0.39)	286 (11.27)	329 (12.96)	309 (12.17)	352 (13.87)	317 (12.49)	360 (14.18)	
	1FK7063-5											331 (13.04)	374 (14.74)	354 (13.98)	397 (15.64)	362 (14.26)	405 (15.96)	
80	1FK7080-5	141 (5.56)	SP140S-MF1	130 (5.12)	40 (1.58)	11 (0.43)	165 (6.50)	283 (11.15)	82 (3.23)	30 (1.18)	12 (0.47)	327 (12.88)	355 (13.95)	350 (13.79)	377 (14.85)	358 (14.11)	386 (15.21)	
	1FK7083-5											365 (14.38)	416 (16.39)	388 (15.29)	439 (17.30)	396 (15.60)	447 (17.61)	
100	1FK7100-5	182 (7.17)	SP180S-MF1	160 (6.30)	55 (2.17)	14 (0.55)	215 (8.47)	310 (12.21)	82 (3.23)	30 (1.18)	15 (0.59)	383 (15.09)	402 (15.84)	406 (16.00)	425 (16.75)	414 (16.31)	433 (17.06)	
	1FK7101-5											409 (16.11)	438 (17.26)	432 (17.02)	461 (18.16)	440 (17.34)	469 (18.48)	
	1FK7103-5											435 (17.14)	464 (18.28)	458 (18.05)	487 (19.19)	466 (18.36)	495 (19.50)	
	1FK7105-5	182 (7.17)	SP180S-MF1	160 (6.30)	55 (2.17)	14 (0.55)	215 (8.47)	310 (12.21)	82 (3.23)	30 (1.18)	15 (0.59)	487 (19.19)	516 (20.33)	510 (20.09)	539 (21.24)	518 (20.41)	547 (21.55)	
	1FK7105-5	212 (8.35)	SP210-MF1	180 (7.09)	75 (2.96)	17 (0.67)	250 (9.85)	350 (13.79)	105 (4.14)	38 (1.50)	17 (0.67)	496 (19.54)	525 (20.68)	519 (20.45)	548 (21.59)	527 (20.76)	556 (21.91)	

1FK702.-5
1FK703.-5
1FK704.-5
1FK706.-5
1FK708.-5
1FK710.-5



Synchronous motors

Dimension drawings

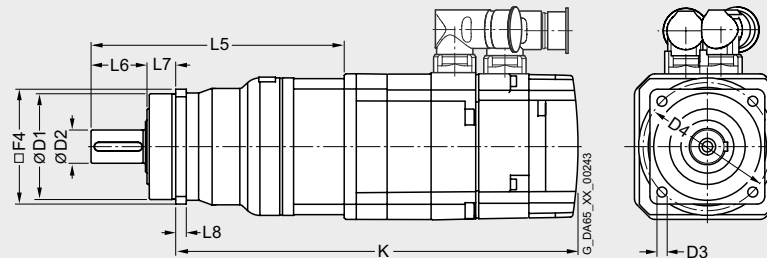
1FK7 High Dynamic motors without/with DRIVE-CLiQ with SP+ planetary gearbox, single-stage

For motor

Dimensions in mm (in)

												Encoder system:					
												Resolver		Incremental encoder		Absolute encoder	
												EnDat 16 S/R		sin/cos 1 V _{pp}		EnDat 2048 S/R	
												Absolute encoder 15 bit (16 S/R)		Incremental encoder 22 bit (2048 S/R)		Absolute encoder 22 bit (2048 S/R)	
														Absolute encoder 20 bit (512 S/R)		Absolute encoder 20 bit (512 S/R)	
												Absolute encoder 16 bit (32 S/R)					
												Without brake	With brake	Without brake	With brake	Without brake	With brake
Shaft height	Type	F4	Planetary gearbox Type	D1	D2	D3	D4	L5	L6	L7	L8	K	K	K	K	K	K
1FK7 High Dynamic with SP+ planetary gearbox, single-stage, type IM B5, natural cooling, with connector, without/with brake																	
36	1FK7033-7	62 (2.44)	SP060S-MF1	60 (2.36)	16 (0.63)	6 (0.24)	68 (2.68)	142 (5.59)	28 (1.10)	20 (0.79)	6 (0.24)	263 (10.36)	288 (11.35)	288 (11.35)	313 (12.33)	288 (11.35)	313 (12.33)
48	1FK7043-7	76 (2.99)	SP075S-MF1	70 (2.76)	22 (0.87)	7 (0.28)	85 (3.35)	168 (6.62)	36 (1.42)	20 (0.79)	7 (0.28)	303 (11.94)	332 (13.08)	324 (12.77)	353 (13.91)	332 (13.08)	361 (14.22)
	1FK7044-7											328 (12.92)	357 (14.07)	349 (13.75)	378 (14.89)	357 (14.07)	386 (15.21)
63	1FK7061-7	101 (3.98)	SP100S-MF1	90 (3.55)	32 (1.26)	9 (0.35)	120 (4.73)	217 (8.55)	58 (2.29)	30 (1.18)	10 (0.39)	314 (12.37)	357 (14.07)	337 (13.28)	380 (14.97)	346 (13.63)	389 (15.33)
	1FK7064-7											378 (14.89)	421 (16.59)	401 (15.80)	444 (17.49)	410 (16.15)	453 (17.85)
80	1FK7085-7	141 (5.56)	SP140S-MF1	130 (5.12)	40 (1.58)	11 (0.43)	165 (6.50)	283 (11.15)	82 (3.23)	30 (1.18)	12 (0.47)	432 (17.02)	474 (18.68)	454 (17.89)	497 (19.58)	463 (18.24)	505 (19.90)
	1FK7086-7											432 (17.02)	474 (18.68)	454 (17.89)	497 (19.58)	463 (18.24)	505 (19.90)

1FK703.-7
1FK704.-7
1FK706.-7
1FK708.-7



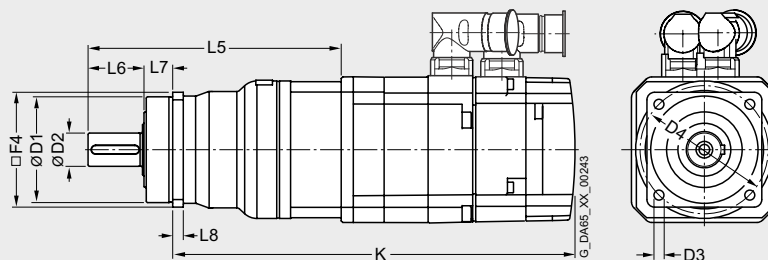
Synchronous motors

Dimension drawings

1FK7 Compact motors without/with DRIVE-CLiQ with SP+ planetary gearbox, two-stage

For motor			Dimensions in mm (in)										Encoder system:					
Shaft height	Type	F4	Planetary gearbox Type	D1	D2	D3	D4	L5	L6	L7	L8	Resolver		Incremental encoder		Absolute encoder		
												Without brake K	With brake K	Without brake K	With brake K	Without brake K	With brake K	
1FK7 Compact with SP+ planetary gearbox, two-stage, type IM B5, natural cooling, with connector, without/with brake																		
28	1FK7022-5	62	SP060S-MF2	60	16	5.5	68	156	28	20	6	261	283	286	308	286	308	
		(2.44)		(2.36)	(0.63)	(0.22)	(2.68)	(6.15)	(1.10)	(0.79)	(0.24)	(10.28)	(11.15)	(11.27)	(12.14)	(11.27)	(12.14)	
	1FK7022-5	76	SP075S-MF2	70	22	6.6	85	175	36	20	7	272	294	297	319	297	319	
		(2.99)		(2.76)	(0.87)	(0.26)	(3.35)	(6.90)	(1.42)	(0.79)	(0.28)	(10.72)	(11.58)	(11.70)	(12.57)	(11.70)	(12.57)	
36	1FK7022-5	101	SP100S-MF2	90	32	9	120	230	58	30	10	295	317	320	342	320	342	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.06)	(2.29)	(1.18)	(0.39)	(11.62)	(12.49)	(12.61)	(13.47)	(12.61)	(13.47)	
	1FK7032-5	62	SP060S-MF2	60	16	5.5	68	164	28	20	6	266	291	291	316	291	316	
		(2.44)		(2.36)	(0.63)	(0.22)	(2.68)	(6.46)	(1.10)	(0.79)	(0.24)	(10.48)	(11.47)	(11.47)	(12.45)	(11.47)	(12.45)	
48	1FK7032-5	76	SP075S-MF2	70	22	6.6	85	179	36	20	7	273	298	298	323	298	323	
		(2.99)		(2.76)	(0.87)	(0.26)	(3.35)	(7.05)	(1.42)	(0.79)	(0.28)	(10.76)	(11.74)	(11.74)	(12.73)	(11.74)	(12.73)	
	1FK7032-5	101	SP100S-MF2	90	32	9	120	230	58	30	10	292	317	317	342	317	342	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.06)	(2.29)	(1.18)	(0.39)	(11.50)	(12.49)	(12.49)	(13.47)	(12.49)	(13.47)	
63	1FK7040-5	76	SP075S-MF2	70	22	6.6	85	192	36	20	7	270	299	291	320	299	328	
		(2.99)		(2.76)	(0.87)	(0.26)	(3.35)	(7.56)	(1.42)	(0.79)	(0.28)	(10.64)	(11.78)	(11.47)	(12.61)	(11.78)	(12.92)	
	1FK7040-5	101	SP100S-MF2	90	32	9	120	234	58	30	10	280	309	301	330	309	338	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.22)	(2.29)	(1.18)	(0.39)	(11.03)	(12.17)	(11.86)	(13.00)	(12.17)	(13.32)	
76	1FK7040-5	141	SP140S-MF2	130	40	11	165	298	82	30	12	320	349	341	370	349	378	
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(11.74)	(3.23)	(1.18)	(0.47)	(12.61)	(13.75)	(13.44)	(14.58)	(13.75)	(14.89)	
	1FK7042-5	76	SP075S-MF2	70	22	6.6	85	192	36	20	7	298	327	298	347	327	356	
		(2.99)		(2.76)	(0.87)	(0.26)	(3.35)	(7.56)	(1.42)	(0.79)	(0.28)	(11.74)	(12.88)	(11.74)	(13.67)	(12.88)	(14.03)	
90	1FK7042-5	101	SP100S-MF2	90	32	9	120	234	58	30	10	308	337	308	357	337	366	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.22)	(2.29)	(1.18)	(0.39)	(12.14)	(13.28)	(12.14)	(14.07)	(13.28)	(14.42)	
	1FK7042-5	141	SP140S-MF2	130	40	11	165	298	82	30	12	348	377	368	397	377	406	
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(11.74)	(3.23)	(1.18)	(0.47)	(13.71)	(14.85)	(14.50)	(15.64)	(14.85)	(16.00)	
108	1FK7060-5	101	SP100S-MF2	90	32	9	120	252	58	30	10	321	364	344	387	352	395	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.93)	(2.29)	(1.18)	(0.39)	(12.65)	(14.34)	(13.55)	(15.25)	(13.87)	(15.56)	
	1FK7060-5	141	SP140S-MF2	130	40	11	165	305	82	30	12	350	393	373	416	381	424	
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(12.02)	(3.23)	(1.18)	(0.47)	(13.79)	(15.48)	(14.70)	(16.39)	(15.01)	(16.71)	
126	1FK7063-5	141	SP140S-MF2	130	40	11	165	305	82	30	12	395	438	418	461	426	469	
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(12.02)	(3.23)	(1.18)	(0.47)	(15.56)	(17.26)	(16.47)	(18.16)	(16.78)	(18.48)	
	1FK7063-5	182	SP180S-MF2	160	55	13.5	215	346	82	30	15	436	479	459	502	467	510	
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(13.63)	(3.23)	(1.18)	(0.59)	(17.18)	(18.87)	(18.08)	(19.78)	(18.40)	(20.09)	

1FK702.-5
1FK703.-5
1FK704.-5
1FK706.-5



Synchronous motors

Dimension drawings

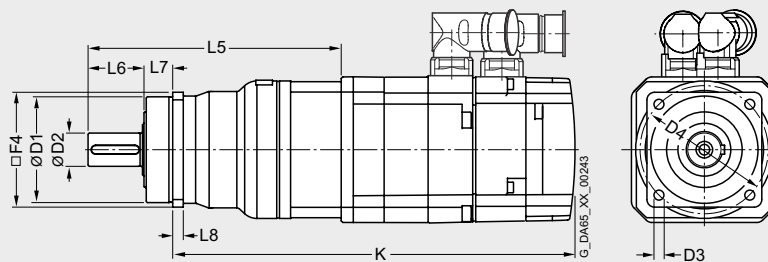
1FK7 Compact motors without/with DRIVE-CLiQ with SP+ planetary gearbox, two-stage

For motor

Dimensions in mm (in)

												Encoder system: Resolver		Incremental encoder sin/cos 1 V _{pp} Incremental encoder 22 bit (2048 S/R) Absolute encoder EnDat 32 S/R Absolute encoder 16 bit (32 S/R)		Absolute encoder EnDat 2048 S/R Absolute encoder 22 bit (2048 S/R)	
Shaft height	Type	F4	Planetary gearbox Type	D1	D2	D3	D4	L5	L6	L7	L8	Without brake K	With brake K	Without brake K	With brake K	Without brake K	With brake K
1FK7 Compact with SP+ planetary gearbox, two-stage, type IM B5, natural cooling, with connector, without/with brake																	
80	1FK7080-5	141	SP140S-MF2	130	40	11	165	332	82	30	12	376	404	399	426	407	435
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(13.08)	(3.23)	(1.18)	(0.47)	(14.81)	(15.92)	(15.72)	(16.78)	(16.04)	(17.14)
	1FK7080-5	182	SP180S-MF2	160	55	13.5	215	355	82	30	15	399	427	422	449	430	458
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(13.99)	(3.23)	(1.18)	(0.59)	(15.72)	(16.82)	(16.63)	(17.69)	(16.94)	(18.05)
	1FK7080-5	212	SP210-MF2	180	75	17	250	397	105	38	17	410	438	433	460	441	469
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(16.15)	(17.26)	(17.06)	(18.12)	(17.38)	(18.48)
	1FK7083-5	141	SP140S-MF2	130	40	11	165	332	82	30	12	414	465	437	488	445	496
		(5.56)		(5.12)	(1.58)	(0.43)	(6.50)	(13.08)	(3.23)	(1.18)	(0.47)	(16.31)	(18.32)	(17.22)	(19.23)	(17.53)	(19.54)
	1FK7083-5	182	SP180S-MF2	160	55	13.5	215	355	82	30	15	437	488	460	511	468	519
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(13.99)	(3.23)	(1.18)	(0.59)	(17.22)	(19.23)	(18.12)	(20.13)	(18.44)	(20.45)
	1FK7083-5	212	SP210-MF2	180	75	17	250	397	105	38	17	448	499	471	522	479	530
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(17.65)	(19.66)	(18.56)	(20.57)	(18.87)	(20.88)
100	1FK7100-5	182	SP180S-MF2	160	55	13.5	215	310	82	30	15	383	402	406	425	414	433
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(12.21)	(3.23)	(1.18)	(0.59)	(15.09)	(15.84)	(16.00)	(16.75)	(16.31)	(17.06)
	1FK7100-5	212	SP210-MF2	180	75	17	250	397	105	38	17	439	458	462	481	470	489
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(17.30)	(18.05)	(18.20)	(18.95)	(18.52)	(19.27)
	1FK7101-5	182	SP180S-MF2	160	55	13.5	215	310	82	30	15	409	438	432	461	440	469
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(12.21)	(3.23)	(1.18)	(0.59)	(16.11)	(17.26)	(17.02)	(18.16)	(17.34)	(18.48)
	1FK7101-5	212	SP210-MF2	180	75	17	250	397	105	38	17	465	494	488	517	496	525
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(18.32)	(19.46)	(19.23)	(20.37)	(19.54)	(20.69)
	1FK7101-5	242	SP240-MF2	200	85	17	290	454	130	40	20	495	524	518	547	526	555
		(9.53)		(7.88)	(3.35)	(0.67)	(11.43)	(17.89)	(5.12)	(1.58)	(0.79)	(19.50)	(20.65)	(20.41)	(21.55)	(20.72)	(21.87)
	1FK7103-5	182	SP180S-MF2	160	55	13.5	215	310	82	30	15	435	464	458	487	466	495
		(7.17)		(6.30)	(2.17)	(0.53)	(8.47)	(12.21)	(3.23)	(1.18)	(0.59)	(17.14)	(18.28)	(18.05)	(19.19)	(18.36)	(19.50)
	1FK7103-5	212	SP210-MF2	180	75	17	250	397	105	38	17	491	520	514	543	522	551
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(19.35)	(20.49)	(20.25)	(21.39)	(20.57)	(21.71)
	1FK7103-5	242	SP240-MF2	200	85	17	290	454	130	40	20	521	550	544	573	552	581
		(9.53)		(7.88)	(3.35)	(0.67)	(11.43)	(17.89)	(5.12)	(1.58)	(0.79)	(20.53)	(21.67)	(21.43)	(22.58)	(21.75)	(22.89)
	1FK7105-5	212	SP210-MF2	180	75	17	250	397	105	38	17	543	572	566	595	574	603
		(8.35)		(7.09)	(2.96)	(0.67)	(9.85)	(15.64)	(4.14)	(1.50)	(0.67)	(21.39)	(22.54)	(22.30)	(23.44)	(22.62)	(23.76)
	1FK7105-5	242	SP240-MF2	200	85	17	290	454	130	40	20	573	602	596	625	604	633
		(9.53)		(7.88)	(3.35)	(0.67)	(11.43)	(17.89)	(5.12)	(1.58)	(0.79)	(22.58)	(23.72)	(23.48)	(24.63)	(23.80)	(24.94)

1FK708.-5
1FK710.-5



Synchronous motors

Dimension drawings

1FK7 High Dynamic motors without/with DRIVE-CLiQ with SP+ planetary gearbox, two-stage

For motor			Dimensions in mm (in)										Encoder system:					
Shaft height	Type	F4	Planetary gearbox Type	D1	D2	D3	D4	L5	L6	L7	L8	Resolver		Incremental encoder		Absolute encoder		
												Without brake	With brake	Without brake	With brake	Without brake	With brake	Without brake
1FK7 High Dynamic with SP+ planetary gearbox, two-stage, type IM B5, natural cooling, with connector, without/with brake																		
36	1FK7033-7	62	SP060S-MF2	60	16	5.5	68	164	28	20	6	285	310	310	335	310	335	
		(2.44)		(2.36)	(0.63)	(0.22)	(2.68)	(6.46)	(1.10)	(0.79)	(0.24)	(11.23)	(12.21)	(12.21)	(13.20)	(12.21)	(13.20)	
	76	SP075S-MF2	70	22	6.6	85	179	36	20	7	292	317	317	342	317	342		
48	1FK7043-7	101	SP100S-MF2	90	32	9	120	230	58	30	10	311	336	336	361	336	361	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.06)	(2.29)	(1.18)	(0.39)	(12.25)	(13.24)	(13.24)	(14.22)	(13.24)	(14.22)	
	76	SP075S-MF2	70	22	6.6	85	192	36	20	7	327	356	348	377	356	385		
63	1FK7043-7	101	SP100S-MF2	90	32	9	120	234	58	30	10	337	366	358	387	366	395	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.22)	(2.29)	(1.18)	(0.39)	(13.28)	(14.42)	(14.11)	(15.25)	(14.42)	(15.56)	
	141	SP140S-MF2	130	40	11	165	298	82	30	12	377	406	398	427	406	435		
80	1FK7044-7	101	SP100S-MF2	90	32	9	120	234	58	30	10	362	391	383	412	391	420	
		(3.98)		(3.55)	(1.26)	(0.35)	(4.73)	(9.22)	(2.29)	(1.18)	(0.39)	(14.26)	(15.41)	(15.09)	(16.23)	(15.41)	(16.55)	
	141	SP140S-MF2	130	40	11	165	298	82	30	12	402	431	432	452	431	460		
1FK7061-7	101	SP100S-MF2	90	32	9	120	252	58	30	10	349	392	372	415	381	424		
																	(3.98)	(3.55)
	1FK7061-7	141	SP140S-MF2	130	40	11	165	305	82	30	12	378	421	401	444	410	453	
(5.56)																		(5.12)
1FK7064-7												442	485	465	508	474	517	
																		(17.41)
	1FK7085-7	182	SP180S-MF2	160	55	13.5	215	355	82	30	15	504	547	526	569	535	577	
(7.17)																		(6.30)
1FK7085-7		212	SP210-MF2	180	75	17	250	397	105	38	17	515	557	537	580	546	588	
	(8.35)																	(7.09)
1FK7086-7	182	SP180S-MF2	160	55	13.5	215	355	82	30	15	504	547	526	569	535	577		
																	(7.17)	(6.30)
	1FK7086-7	212	SP210-MF2	180	75	17	250	397	105	38	17	515	557	537	580	546	588	
(8.35)																		(7.09)

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