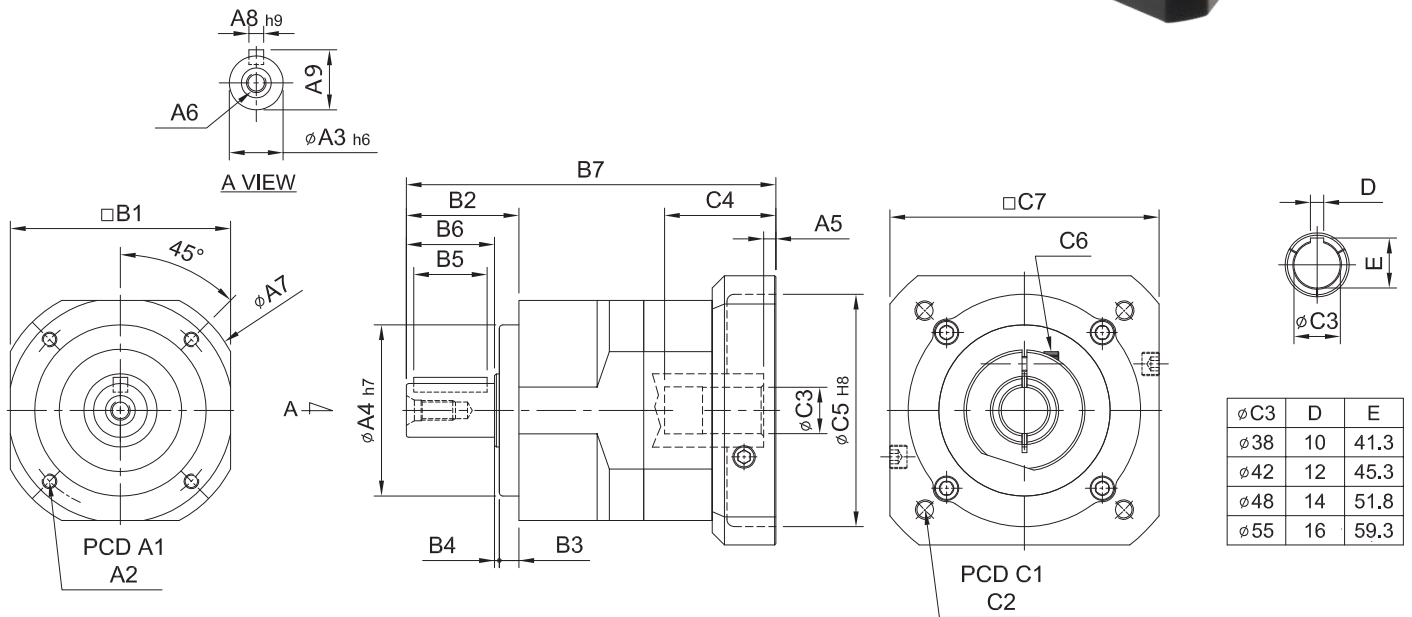


SERVOBOX

MODEL : SE

1-Stage / Kademe

RATIO / ÇEVİRİM : 3, 4, 5, 6, 7, 8, 9, 10



unit / birim: mm

Model Code	44	62	90	120	142	180	220
A							
A1	44	62	82	110	140	184	218
A2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
A3	13	16	22	32	40	55	75
A4	35	50	70	90	120	160	180
A5	5	6	9 · 23.5	10 · 20	10	11.5 · 13.5	12.5 · 14.5
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M10 x P1.5	M12 x P1.75	M14 x P2.0	M16 x P2.0
A7	50	70	102	134	166	215	252
A8	5	5	6	10	12	16	20
A9	15	18	24.5	35	43	59	79.5
B							
B1	44	62	90	120	142	180	220
B2	26	36	46	65	92	106	139
B3	5	7	8	12	15	20	30
B4	1	1	2	3	3	4	5
B5	15	20	30	40	65	70	90
B6	20	28	36	50	74	82	104
B7	95	115 · 123	164.5 · 179	205 · 215	260.5	323.5	367.5
C							
C1	46 · 60 · 63 · 90	70 · 75 · 90	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265	200 · 265 · 300
C2	M3 · M4 · M5	M4 · M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M10 · M12	M12 · M16
C3	8 · 9 · 11	14 · 19	19 · 22 · 24	24 · 28 · 32	28 · 32 · 35	38 · 42 · 48 · 55	42 · 48 · 55
C4	26	33.5 · 41.5	59 · 73.5	67 · 77	84.5	114.5 · 116.5	117.5 · 119.5
C5	30 · 40 · 50	50 · 60 · 70	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230	114.3 · 230 · 250
C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
C7	46 · 55	64 · 70 · 80	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250	222 · 250 · 265



Model No.		Unit/Birim	Ratio Çevrim	44	62	90	120	142	180	220
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	3	19	59	165	335	625	1,206	2,030
			4	16	51	146	300	555	1,069	1,804
			5	16	48	160	333	618	1,189	2,010
			6	15	45	151	311	583	1,118	1,911
			7	15	45	149	309	573	1,108	1,870
			8	14	43	143	298	553	1,070	1,824
			9	13	44	145	278	516	993	1,694
			10	14	43	141	294	549	1,059	1,779
Max. Acceleration Torque / Max. İvmelenme Torku	T_{2B}	Nm	3 ~ 10	1.8 Times of Rated Output Torque / 1,8 x Nominal Çıkış Torku						
Max. Output Torque / Max. Çıkış Torku	T_{2NOT}	Nm	3 ~ 10	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku						
Rated Input Speed / Nominal Giriş Devri	n_{1N}	rpm	3 ~ 10	3,000	3,000	3,000	3,000	3,000	3,000	2,000
Max. Input Speed / Max. Giriş Devri	n_{1B}	rpm	3 ~ 10	6,000	6,000	6,000	5,000	5,000	4,000	3,000
Backlash Ps / Min. Boşluk Oranı		arcmin	3 ~ 10	-	-	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Backlash P0 / Düşük Boşluk Oranı		arcmin	3 ~ 10	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
Backlash P1 / Azaltılmış Boşluk Oranı		arcmin	3 ~ 10	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Backlash P2 / Standart Boşluk Oranı		arcmin	3 ~ 10	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
Torsional Rigidity / Burulma Direnci		Nm/arcmin	3 ~ 10	3	6	14	27	60	140	240
Max. Radial Force / Max. Radyal Yük	F_{2rB}	N	3 ~ 10	380	1,180	3,200	6,800	9,300	15,600	51,000
Max. Axial Force / Max. Aksiyel Yük	F_{2aB}	N	3 ~ 10	190	590	1,600	3,400	4,650	7,800	25,500
Service Life / Hizmet Ömrü	L_H	hr	3 ~ 10	S5 Döngüsel Çalışma: >30,000 (S1 Sürekli Çalışma: >15,000 saat) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)						
Efficiency / Verim	η	%	3 ~ 10	≥ 97						
Operating Temperature / Çalışma Sıcaklığı		°C	3 ~ 10	- 25° C ~ + 90° C						
Lubrication / Yağlama			3 ~ 10	Synthetic Grease / Sentetik Gres						
Protection Class / Koruma Sınıfı			3 ~ 10	IP65						
Mounting Position / Montaj Pozisyonu			3 ~ 10	Any / Her Yönde						
Noise Level / Ses Seviyesi		dB	3 ~ 10	≤ 56	≤ 58	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
Weight / Ağırlık ±3%		Kg	3 ~ 10	0.58	1.32	3.4	7.88	14	29.16	39

■ Mass Moments of Inertia / Atalet Ağırlık Momenti (kg.cm²)

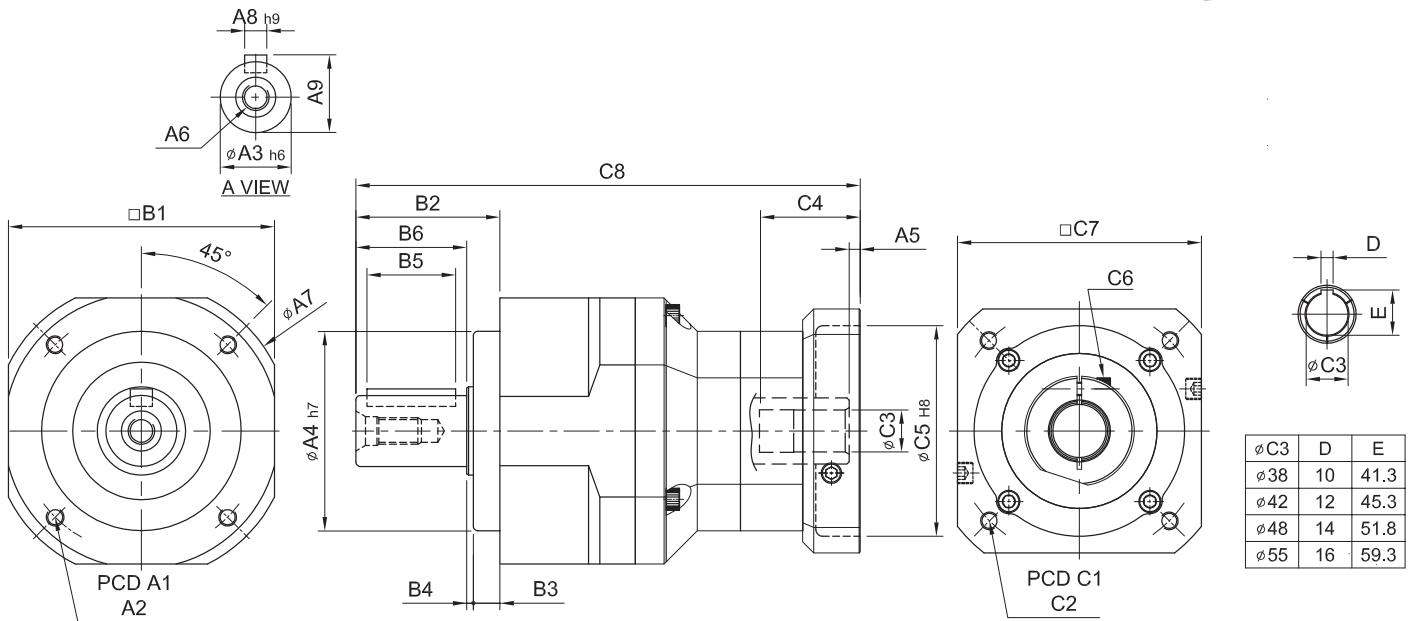
Ratio / Çevrim	44	62	90	120	142	180	220
3	0.03	0.16	0.61	3.25	9.21	28.98	69.61
4	0.03	0.14	0.48	2.74	7.54	23.67	54.37
5	0.03	0.13	0.47	2.71	7.42	23.29	53.27
6	0.03	0.13	0.45	2.65	7.25	22.75	51.72
7	0.03	0.13	0.45	2.62	7.14	22.48	50.97
8	0.03	0.13	0.44	2.58	7.07	22.59	50.84
9	0.03	0.13	0.44	2.57	7.04	22.53	50.63
10	0.03	0.13	0.44	2.57	7.03	22.51	50.56

SERVOBOX

MODEL : SE

2-Stage / Kademe

RATIO / ÇEVİRİM : 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100



unit / birim: mm

Model Code	62	90	120	142	180	220
A A1	62	82	110	140	184	218
A2	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
A3	16	22	32	40	55	75
A4	50	70	90	120	160	180
A5	5	6	9 · 23.5	10 · 20	10	11.5 · 13.5
A6	M5 x P0.8	M8 x P1.25	M10 x P1.5	M12 x P1.75	M14 x P2.0	M16 x P2.0
A7	70	102	134	166	215	252
A8	5	6	10	12	16	20
A9	18	24.5	35	43	59	79.5
B B1	62	90	120	142	180	220
B2	36	46	65	92	106	139
B3	7	8	12	15	20	30
B4	1	2	3	3	4	5
B5	20	30	40	65	70	90
B6	28	36	50	74	82	104
C C1	46 · 60 · 63	70 · 75 · 90	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265
C2	M3 · M4 · M5	M4 · M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M10 · M12
C3	8 · 9 · 11	14 · 19	19 · 22 · 24	24 · 28 · 32	28 · 32 · 35	38 · 42 · 48 · 55
C4	26	33.5 · 41.5	59 · 73.5	67 · 77	84.5	114.5 · 116.5
C5	30 · 40 · 50	50 · 60 · 70	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230
C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
C7	46 · 55	64 · 70 · 80	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250
C8	139.5	172.5 · 180.5	241 · 255.5	298.5 · 308.5	358.5	446.5



Model No.		Unit/Birim	Ratio Çevrim	62	90	120	142	180	220
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	15	59	165	335	625	1,206	2,030
			20	51	146	300	555	1,069	1,804
			25	48	160	333	618	1,189	2,010
			30	45	151	311	583	1,118	1,911
			35	45	149	309	573	1,108	1,870
			40	43	143	298	553	1,070	1,824
			50	48	160	333	618	1,189	2,010
			60	45	151	311	583	1,118	1,911
			70	45	149	309	573	1,108	1,870
			80	43	143	298	553	1,070	1,824
			90	44	145	278	516	993	1,694
			100	43	141	294	549	1,059	1,779
Max. Acceleration Torque / Max.İvmelenme Torku	T_{2B}	Nm	15 ~ 100	1.8 Times of Rated Output Torque / 1,8 x Nominal Çıkış Torku					
Max. Output Torque / Max.Çıkış Torku	T_{2NOT}	Nm	15 ~ 100	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku					
Rated Input Speed / Nominal Giriş Devri	n_{IN}	rpm	15 ~ 100	3,000	3,000	3,000	3,000	3,000	2,000
Max. Input Speed / Max.Giriş Devri	n_{IB}	rpm	15 ~ 100	6,000	6,000	5,000	5,000	4,000	4,000
Backlash Ps / Min.Boşluk Oranı		arcmin	15 ~ 100	-	-	≤ 3	≤ 3	≤ 3	≤ 3
Backlash P0 / Düşük Boşluk Oranı		arcmin	15 ~ 100	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Backlash P1 / Azaltılmış Boşluk Oranı		arcmin	15 ~ 100	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
Backlash P2 / Standart Boşluk Oranı		arcmin	15 ~ 100	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Torsional Rigidity / Burulma Direnci		Nm/arcmin	15 ~ 100	6	14	27	60	140	240
Max. Radial Force / Max. Radyal Yük	F_{2rB}	N	15 ~ 100	1,180	3,200	6,800	9,300	15,600	51,000
Max. Axial Force / Max. Aksiyel Yük	F_{2aB}	N	15 ~ 100	590	1,600	3,400	4,650	7,800	25,500
Service Life / Hizmet Ömrü	L_H	hr	15 ~ 100	S5 Döngüsel Çalışma: >30,000 (S1 Sürekli Çalışma: >15,000 saat) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)					
Efficiency / Verim	η	%	15 ~ 100	≥ 94					
Operating Temperature / Çalışma Sıcaklığı		°C	15 ~ 100	- 25° C ~ + 90° C					
Lubrication / Yağlama			15 ~ 100	Synthetic Grease / Sentetik Gres					
Protection Class / Koruma Sınıfı			15 ~ 100	IP65					
Mounting Position / Montaj Pozisyonu			15 ~ 100	Any / Her Yönde					
Noise Level / Ses Seviyesi		dB	15 ~ 100	≤ 58	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
Weight / Ağırlık ±3%		Kg	15 ~ 100	1.68	4.4	9.3	15.5	34.8	56.5

■ Mass Moments of Inertia / Atalet Ağırlık Momenti (kg.cm²)

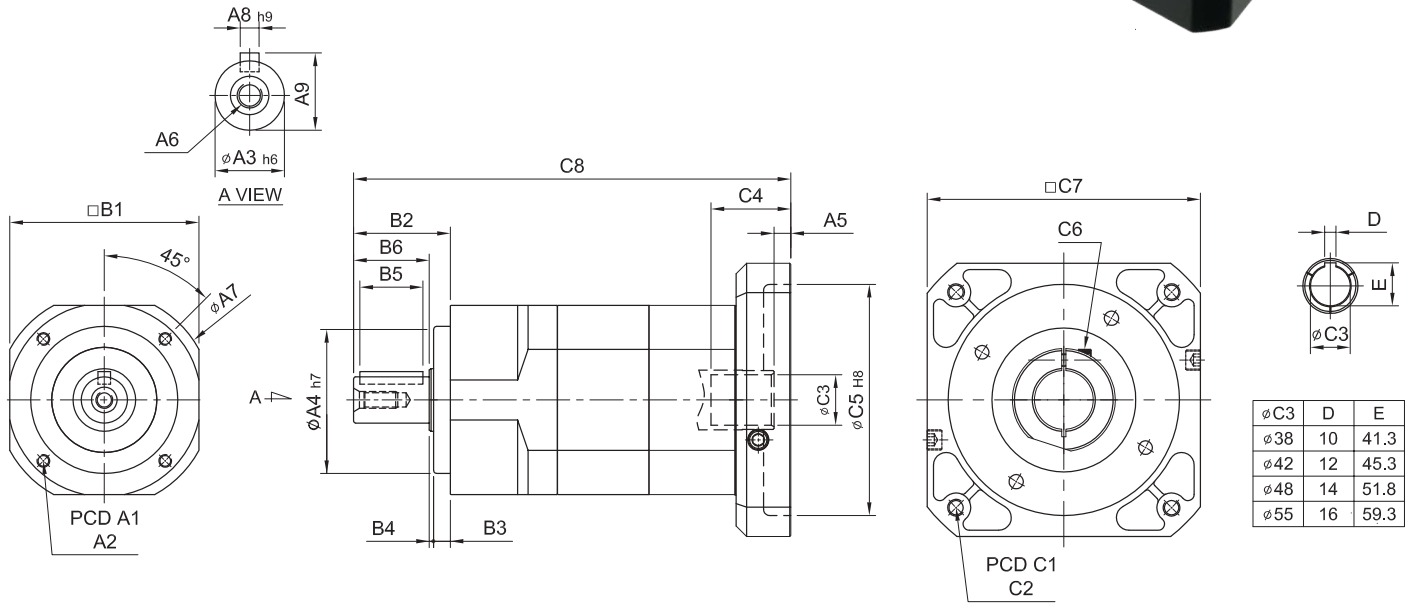
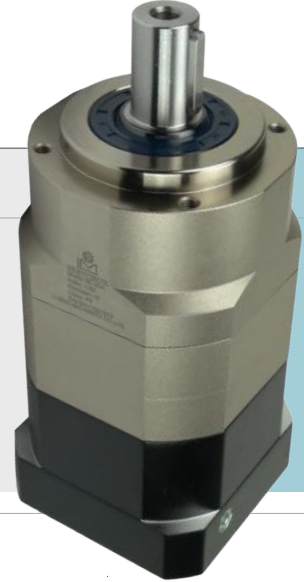
Ratio / Çevrim	62	90	120	142	180	220
15	0.03	0.14	0.46	2.63	7.3	22.79
20	0.03	0.14	0.46	2.63	7.3	22.79
25	0.03	0.14	0.46	2.63	7.1	22.79
30	0.03	0.14	0.46	2.43	7.1	22.59
35	0.03	0.14	0.44	2.43	7.1	22.59
40	0.03	0.14	0.44	2.43	6.92	22.59
50	0.03	0.14	0.44	2.43	6.92	22.59
60	0.03	0.14	0.43	2.39	6.72	21.83
70	0.03	0.14	0.43	2.39	6.72	21.83
80	0.03	0.14	0.43	2.39	6.72	21.83
90	0.03	0.14	0.40	2.39	6.72	21.60
100	0.03	0.14	0.40	2.39	6.72	21.60

SERVOBOX

MODEL : SE-A

2-Stage / Kademe

RATIO / ÇEVİRİM : 15, 20, 25, 30, 35, 40, 50, 60, 70
80, 90, 100



unit / birim: mm

Model Code	44A	62A	90A	120A	142A	180A	220A	
A	A1	44	62	82	110	140	218	
	A2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
	A3	13	16	22	32	40	55	75
	A4	35	50	70	90	120	160	180
	A5	5	6	9 · 23.5	10 · 20	10	11.5 · 13.5	12.5 · 14.5
	A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M10 x P1.5	M12 x P1.75	M14 x P2.0	M16 x P2.0
	A7	50	70	102	134	166	215	252
	A8	5	5	6	10	12	16	20
	A9	15	18	24.5	35	43	59	79.5
B	B1	44	62	90	120	142	180	220
	B2	26	36	46	65	92	106	139
	B3	5	7	8	12	15	20	30
	B4	1	1	2	3	3	4	5
	B5	15	20	30	40	65	70	90
	B6	20	28	36	50	74	82	104
C	C1	46 · 60 · 63	70 · 75 · 90	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265	200 · 265 · 300
	C2	M3 · M4 · M5	M4 · M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M10 · M12	M12 · M16
	C3	8 · 9 · 11	14 · 19	19 · 22 · 24	24 · 28 · 32	28 · 32 · 35	38 · 42 · 48 · 55	42 · 48 · 55
	C4	26	33.5 · 41.5	59 · 73.5	67 · 77	84.5	114.5 · 116.5	117.5 · 119.5
	C5	30 · 40 · 50	50 · 60 · 70	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230	114.3 · 230 · 250
	C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
	C7	46 · 55	64 · 70 · 80	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250	222 · 250 · 265
	C8	121	148.8 · 156.8	208 · 222.5	261 · 271	327	404.5	460.5



Model No.		Unit/Birim	Ratio Çevrim	44A	62A	90A	120A	142A	180A	220A
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	15	19	59	165	335	625	1,206	2,030
			20	16	51	146	300	555	1,069	1,804
			25	16	48	160	333	618	1,189	2,010
			30	15	45	151	311	583	1,118	1,911
			35	15	45	149	309	573	1,108	1,870
			40	14	43	143	298	553	1,070	1,824
			50	16	48	160	333	618	1,189	2,010
			60	15	45	151	311	583	1,118	1,911
			70	15	45	149	309	573	1,108	1,870
			80	14	43	143	298	553	1,070	1,824
			90	13	44	145	278	516	993	1,694
			100	14	43	141	294	549	1,059	1,779
Max. Acceleration Torque / Max. İvmelenme Torku	T_{2B}	Nm	15 ~ 100	1.8 Times of Rated Output Torque / 1,8 x Nominal Çıkış Torku						
Max. Output Torque / Max. Çıkış Torku	T_{2NOT}	Nm	15 ~ 100	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku						
Rated Input Speed / Nominal Giriş Devri	n_{IN}	rpm	15 ~ 100	3,000	3,000	3,000	3,000	3,000	3,000	2,000
Max. Input Speed / Max. Giriş Devri	n_{IB}	rpm	15 ~ 100	6,000	6,000	6,000	5,000	5,000	4,000	3,000
Backlash Ps / Min. Boşluk Oranı		arcmin	15 ~ 100	-	-	-	≤ 3	≤ 3	≤ 3	≤ 3
Backlash P0 / Düşük Boşluk Oranı		arcmin	15 ~ 100	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Backlash P1 / Azaltılmış Boşluk Oranı		arcmin	15 ~ 100	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
Backlash P2 / Standart Boşluk Oranı		arcmin	15 ~ 100	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Torsional Rigidity / Burulma Direnci		Nm/arcmin	15 ~ 100	3	6	14	27	60	140	240
Max. Radial Force / Max. Radyal Yük	F_{2rB}	N	15 ~ 100	380	1,180	3,200	6,800	9,300	15,600	51,000
Max. Axial Force / Max. Aksiyel Yük	F_{2aB}	N	15 ~ 100	190	590	1,600	3,400	4,650	7,800	25,500
Service Life / Hizmet Ömrü	L_H	hr	15 ~ 100	S5 Döngüsel Çalışma: >30,000 (S1 Sürekli Çalışma: >15,000 saat) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)						
Efficiency / Verim	η	%	15 ~ 100	≥ 94						
Operating Temperature / Çalışma Sıcaklığı		°C	15 ~ 100	- 25° C ~ + 90° C						
Lubrication / Yağlama			15 ~ 100	Synthetic Grease / Sentetik Gres						
Protection Class / Koruma Sınıfı			15 ~ 100	IP65						
Mounting Position / Montaj Pozisyonu			15 ~ 100	Any / Her Yönde						
Noise Level / Ses Seviyesi		dB	15 ~ 100	≤ 56	≤ 58	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
Weight / Ağırlık ±3%		Kg	15 ~ 100	0.9	2	6	10.2	22.5	42	59

■ Mass Moments of Inertia / Atalet Ağırlık Momenti (kg.cm²)

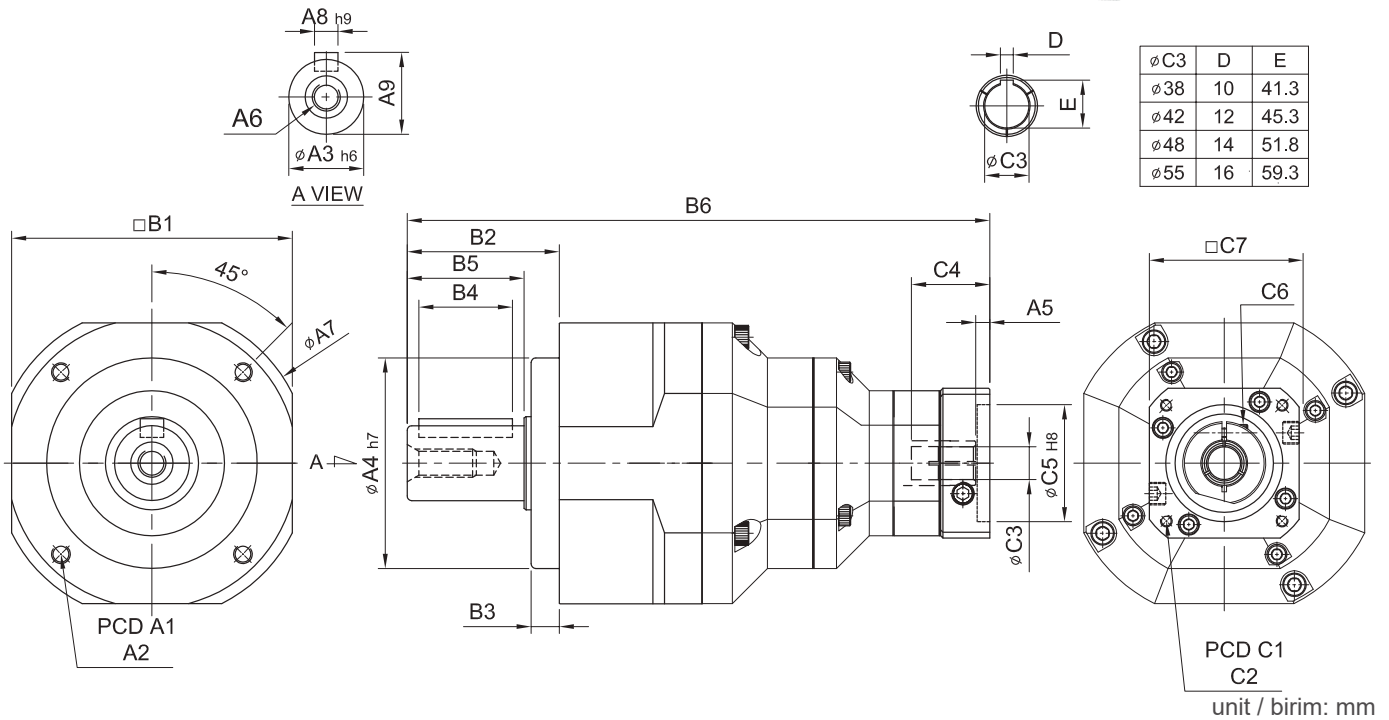
Ratio / Çevrim	44A	62A	90A	120A	142A	180A	220A
15	0.03	0.14	0.46	2.63	7.30	22.79	56.98
20	0.03	0.14	0.46	2.63	7.30	22.79	56.98
25	0.03	0.14	0.46	2.63	7.10	22.79	56.98
30	0.03	0.14	0.46	2.43	7.10	22.59	56.48
35	0.03	0.14	0.44	2.43	7.10	22.59	56.48
40	0.03	0.14	0.44	2.43	6.92	22.59	56.48
50	0.03	0.14	0.44	2.39	6.92	22.59	56.48
60	0.03	0.14	0.43	2.39	6.72	21.83	54.58
70	0.03	0.14	0.43	2.39	6.72	21.83	54.58
80	0.03	0.14	0.43	2.39	6.72	21.83	54.58
90	0.03	0.14	0.40	2.39	6.72	21.60	54.00
100	0.03	0.14	0.40	2.39	6.72	21.60	54.00

SERVOBOX

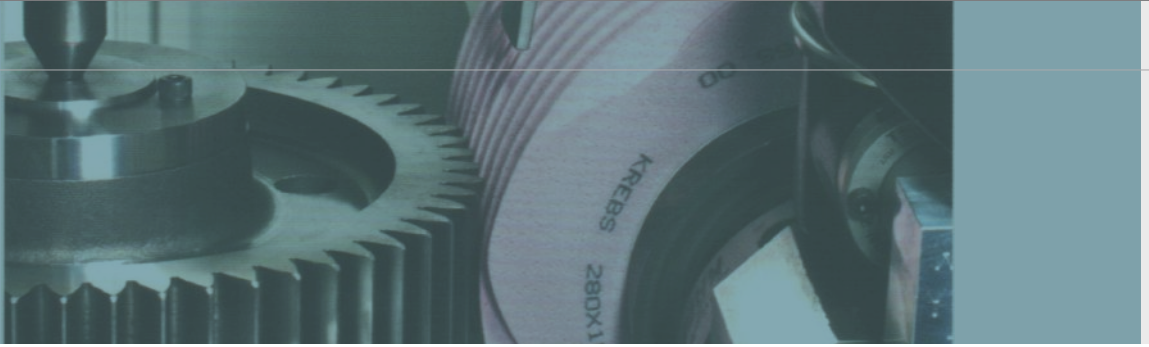
MODEL : SE

3-Stage / Kademe

RATIO / ÇEVİRİM : 125, 150, 175, 200, 250, 300, 350, 400
450, 500, 600, 700, 800, 900, 1000



Model Code	90	120	142	180	220
A A1	82	110	140	184	218
A2	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
A3	22	32	40	55	75
A4	70	90	120	160	180
A5	5	6	9 · 23.5	10 · 20	10
A6	M8 x P1.25	M10 x P1.5	M12 x P1.75	M14 x P2.0	M16 x P2.0
A7	102	134	166	215	252
A8	6	10	12	16	20
A9	24.5	35	43	59	79.5
B B1	90	120	142	180	220
B2	46	65	92	106	139
B3	8	12	15	20	30
B4	30	40	65	70	90
B5	36	50	74	82	104
B6	195	249 · 257	334.5 · 349	396.5 · 406.5	481.5
C C1	46 · 60 · 63	70 · 75 · 90	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200
C2	M3 · M4 · M5	M4 · M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12
C3	8 · 9 · 11	14 · 19	19 · 22 · 24	24 · 28 · 32	35 · 38
C4	26	33.5 · 41.5	59 · 73.5	67 · 77	84.5
C5	30 · 40 · 50	50 · 60 · 70	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180
C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C7	46 · 55	64 · 70 · 80	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190



Model No.		Unit/Birim	Ratio Çevrim	90	120	142	180	220
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	125	160	333	618	1,189	2,010
			150	165	335	625	1,206	2,030
			175	149	309	573	1,108	1,870
			200	146	300	555	1,069	1,804
			250	160	333	618	1,189	2,010
			300	151	311	583	1,118	1,911
			350	149	309	573	1,108	1,870
			400	143	298	553	1,070	1,824
			450	145	278	516	993	1,694
			500	160	333	618	1,189	2,010
			600	151	311	583	1,118	1,911
			700	149	309	573	1,108	1,870
800	143	298	553	1,070	1,824			
900	145	278	516	993	1,694			
1000	141	294	549	1,059	1,779			
Max. Acceleration Torque / Max.İvmelenme Torku	T_{2B}	Nm	125 ~ 1000	1.8 Times of Rated Output Torque / 1,8 x Nominal Çıkış Torku				
Max. Output Torque / Max.Çıkış Torku	T_{2NOT}	Nm	125 ~ 1000	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku				
Rated Input Speed / Nominal Giriş Devri	n_{IN}	rpm	125 ~ 1000	3,000	3,000	3,000	3,000	2,000
Max. Input Speed / Max.Giriş Devri	n_{IB}	rpm	125 ~ 1000	6,000	5,000	5,000	4,000	3,000
Backlash Ps / Min.Boşluk Oranı		arcmin	125 ~ 1000	-	≤ 5	≤ 5	≤ 5	≤ 5
Backlash P0 / Düşük Boşluk Oranı		arcmin	125 ~ 1000	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
Backlash P1 / Azaltılmış Boşluk Oranı		arcmin	125 ~ 1000	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Backlash P2 / Standart Boşluk Oranı		arcmin	125 ~ 1000	≤ 11	≤ 11	≤ 11	≤ 11	≤ 11
Torsional Rigidity / Burulma Direnci		Nm/arcmin	125 ~ 1000	14	27	60	140	240
Max. Radial Force / Max. Radyal Yük	F_{2rB}	N	125 ~ 1000	3,200	6,800	9,300	15,600	51,000
Max. Axial Force / Max. Aksiyel Yük	F_{2aB}	N	125 ~ 1000	1,600	3,400	4,650	7,800	25,500
Service Life / Hizmet Ömrü	L_H	hr	125 ~ 1000	S5 Döngüsel Çalışma: >30,000 (S1 Sürekli Çalışma: >15,000 saat) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)				
Efficiency / Verim	η	%	125 ~ 1000	≥ 90				
Operating Temperature / Çalışma Sıcaklığı		°C	125 ~ 1000	- 25° C ~ + 90° C				
Lubrication / Yağlama			125 ~ 1000	Synthetic Grease / Sentetik Gres				
Protection Class / Koruma Sınıfı			125 ~ 1000	IP65				
Mounting Position / Montaj Pozisyonu			125 ~ 1000	Any / Her Yönde				
Noise Level / Ses Seviyesi		dB	125 ~ 1000	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
Weight / Ağırlık ±3%		Kg	125 ~ 1000	4.9	10	23	47	70

■ Mass Moments of Inertia / Atalet Ağırlık Momenti (kg.cm²)

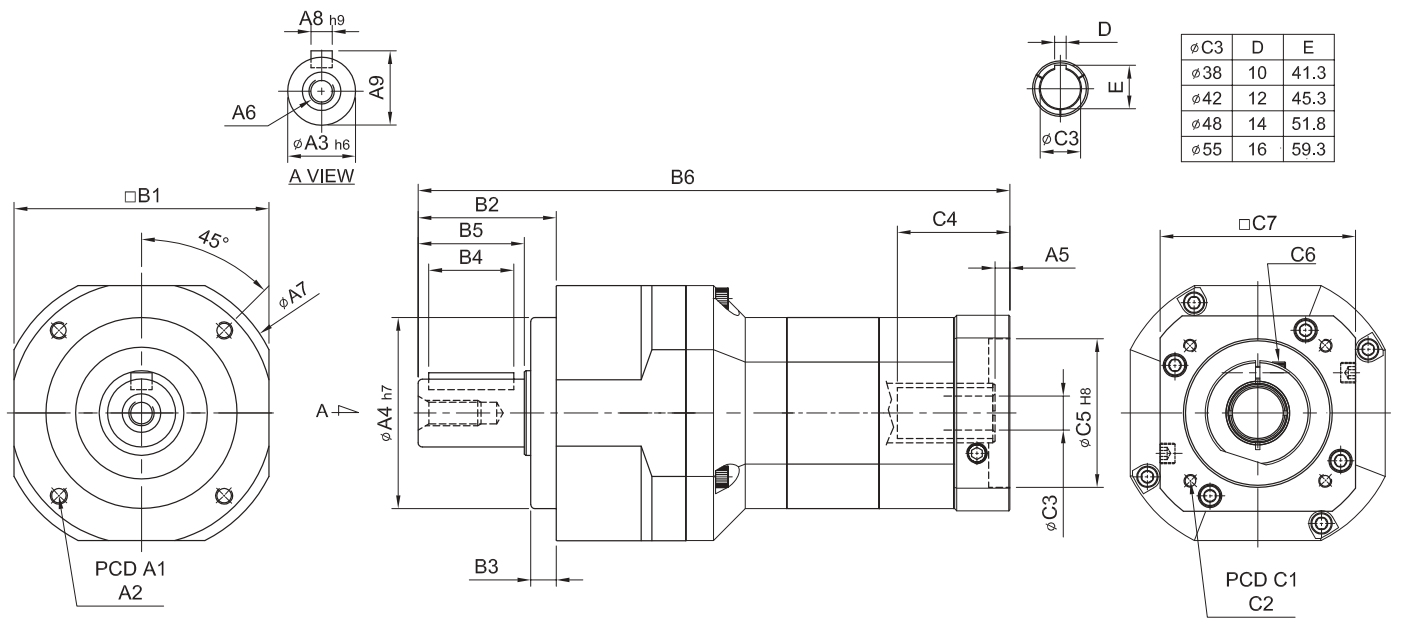
Ratio / Çevrim	90	120	142	180	220
125	0.01	0.04	0.71	1.42	3.29
150	0.01	0.04	0.51	0.92	2.15
175	0.01	0.04	0.40	0.83	1.26
200	0.01	0.04	0.21	0.65	0.98
250	0.01	0.04	0.11	0.52	0.82
300	0.01	0.04	0.09	0.21	0.82
350	0.01	0.04	0.09	0.21	0.82
400	0.01	0.04	0.09	0.21	0.82
450	0.01	0.04	0.09	0.21	0.51
500	0.01	0.04	0.08	0.12	0.51
600	0.01	0.04	0.08	0.12	0.25
700	0.01	0.04	0.08	0.12	0.25
800	0.01	0.04	0.08	0.12	0.25
900	0.01	0.04	0.08	0.12	0.25
1000	0.01	0.04	0.08	0.12	0.25

SERVOBOX

MODEL : SE-A

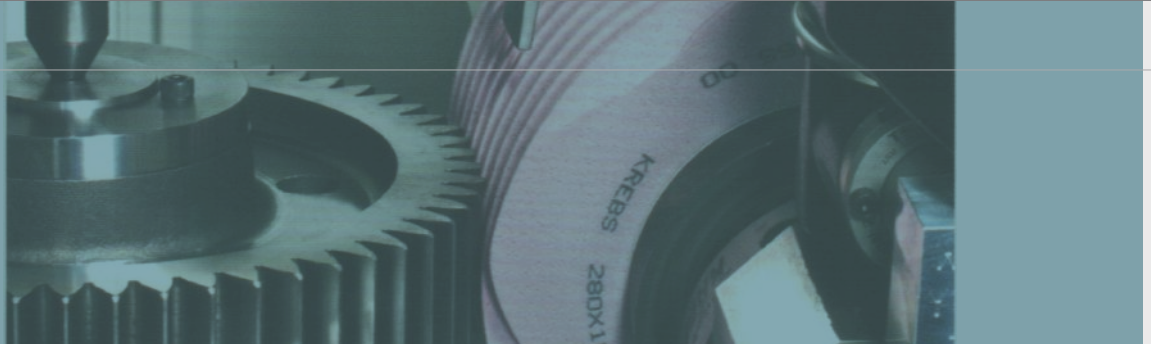
3-Stage / Kademe

RATIO / ÇEVİRİM : 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000



unit / birim: mm

Model Code	62A	90A	120A	142A	180A	220A
A						
A1	62	82	110	140	184	218
A2	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75	M16 x P2.0
A3	16	22	32	40	55	75
A4	50	70	90	120	160	180
A5	6.5	6	9 · 23.5	10 · 20	10	11.5 · 13.5
A6	M5 x P0.8	M8 x P1.25	M10 x P1.5	M12 x P1.75	M14 x P2.0	M16 x P2.0
A7	70	102	134	166	215	252
A8	5	6	10	12	16	20
A9	18	24.5	35	43	59	79.5
B						
B1	62	90	120	142	180	220
B2	36	46	65	92	106	139
B3	7	8	12	15	20	30
B4	20	30	40	65	70	90
B5	28	36	50	74	82	104
B6	165.5	204.5 · 212.5	284.5	354.5	425	527.5
C						
C1	46 · 60 · 63	70 · 75 · 90	90 · 100 · 115 · 145	115 · 145 · 165	145 · 165 · 200	200 · 215 · 265
C2	M3 · M4 · M5	M4 · M5 · M6	M5 · M6 · M8	M6 · M8 · M10	M8 · M10 · M12	M10 · M12
C3	8 · 9 · 11	14 · 19	19 · 22 · 24	24 · 28 · 32	28 · 32 · 35	38 · 42 · 48 · 55
C4	26	33.5 · 41.5	59 · 73.5	67 · 77	84.5	114.5 · 116.5
C5	30 · 40 · 50	50 · 60 · 70	70 · 80 · 95 · 110	95 · 110 · 130	110 · 130 · 180	114.3 · 180 · 230
C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5
C7	46 · 55	64 · 70 · 80	92 · 110 · 130	122 · 130 · 150	146 · 150 · 190	182 · 200 · 250



Model No.		Unit/Birim	Ratio Çevrim	62A	90A	120A	142A	180A	220A
Nominal output torque / Nominal Çıkış Torku	T_{2N}	Nm	125	48	160	333	618	1,189	2,010
			150	59	165	335	625	1,206	2,030
			175	45	149	309	573	1,108	1,870
			200	51	146	300	555	1,069	1,804
			250	48	160	333	618	1,189	2,010
			300	45	151	311	583	1,118	1,911
			350	45	149	309	573	1,108	1,870
			400	43	143	298	553	1,070	1,824
			450	44	145	278	516	993	1,694
			500	48	160	333	618	1,189	2,010
			600	45	151	311	583	1,118	1,911
			700	45	149	309	573	1,108	1,870
800	43	143	298	553	1,070	1,824			
900	44	145	278	516	993	1,694			
1000	43	141	294	549	1,059	1,779			
Max. Acceleration Torque / Max. İvmelenme Torku	T_{2B}	Nm	125 ~ 1000	1.8 Times of Rated Output Torque / 1,8 x Nominal Çıkış Torku					
Max. Output Torque / Max. Çıkış Torku	T_{2NOT}	Nm	125 ~ 1000	3 Times of Rated Output Torque / 3 x Nominal Çıkış Torku					
Rated Input Speed / Nominal Giriş Devri	n_{IN}	rpm	125 ~ 1000	3,000	3,000	3,000	3,000	3,000	2,000
Max. Input Speed / Max. Giriş Devri	n_{IB}	rpm	125 ~ 1000	6,000	6,000	5,000	5,000	4,000	3,000
Backlash P _s / Min. Boşluk Oranı		arcmin	125 ~ 1000	-	-	≤ 5	≤ 5	≤ 5	≤ 5
Backlash P ₀ / Düşük Boşluk Oranı		arcmin	125 ~ 1000	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
Backlash P ₁ / Azaltılmış Boşluk Oranı		arcmin	125 ~ 1000	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Backlash P ₂ / Standart Boşluk Oranı		arcmin	125 ~ 1000	≤ 11	≤ 11	≤ 11	≤ 11	≤ 11	≤ 11
Torsional Rigidity / Burulma Direnci		Nm/arcmin	125 ~ 1000	6	14	27	60	140	240
Max. Radial Force / Max. Radyal Yük	F_{2rB}	N	125 ~ 1000	1,180	3,200	6,800	9,300	15,600	51,000
Max. Axial Force / Max. Aksiyel Yük	F_{2aB}	N	125 ~ 1000	590	1,600	3,400	4,650	7,800	25,500
Service Life / Hizmet Ömrü	L_H	hr	125 ~ 1000	S5 Döngüsel Çalışma: >30,000 (S1 Sürekli Çalışma: >15,000 saat) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)					
Efficiency / Verim	η	%	125 ~ 1000	≥ 90					
Operating Temperature / Çalışma Sıcaklığı		°C	125 ~ 1000	- 25° C ~ + 90° C					
Lubrication / Yağlama			125 ~ 1000	Synthetic Grease / Sentetik Gres					
Protection Class / Koruma Sınıfı			125 ~ 1000	IP65					
Mounting Position / Montaj Pozisyonu			125 ~ 1000	Any / Her Yönde					
Noise Level / Ses Seviyesi		dB	125 ~ 1000	≤ 58	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
Weight / Ağırlık ±3%		Kg	125 ~ 1000	2.5	6.5	13	26	56.5	86

■ Mass Moments of Inertia / Atalet Ağırlık Momenti (kg.cm²)

Ratio / Çevrim	62A	90A	120A	142A	180A	220A
125	0.01	0.01	0.04	0.71	1.42	3.29
150	0.01	0.01	0.04	0.51	0.92	2.15
175	0.01	0.01	0.04	0.4	0.83	1.26
200	0.01	0.01	0.04	0.21	0.65	0.98
250	0.01	0.01	0.04	0.11	0.52	0.82
300	0.01	0.01	0.04	0.09	0.21	0.82
350	0.01	0.01	0.04	0.09	0.21	0.82
400	0.01	0.01	0.04	0.09	0.21	0.82
450	0.01	0.01	0.04	0.09	0.21	0.51
500	0.01	0.01	0.04	0.08	0.12	0.51
600	0.01	0.01	0.04	0.08	0.12	0.25
700	0.01	0.01	0.04	0.08	0.12	0.25
800	0.01	0.01	0.04	0.08	0.12	0.25
900	0.01	0.01	0.04	0.08	0.12	0.25
1000	0.01	0.01	0.04	0.08	0.12	0.25