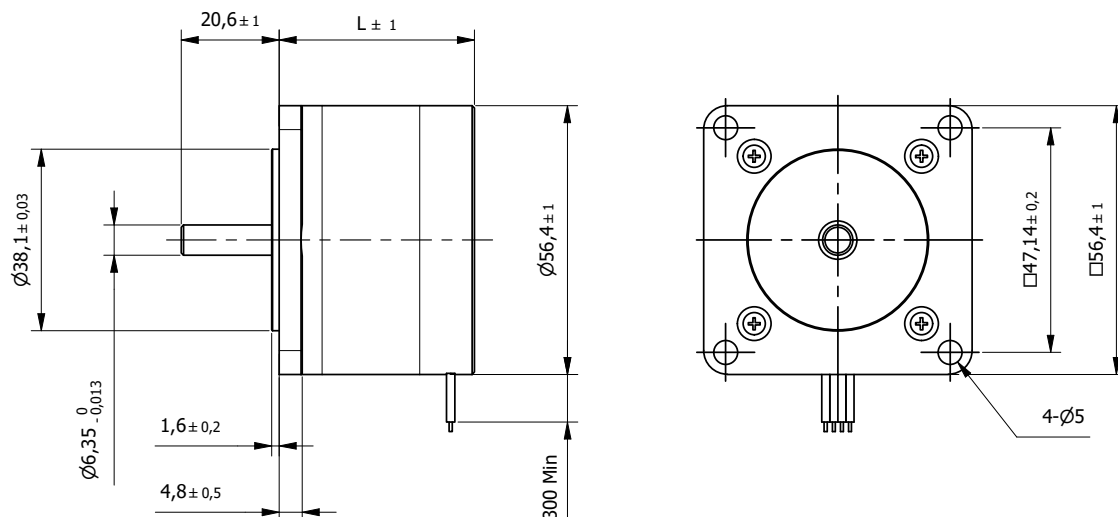




Hybrid Stepper motors
S-series

Hybrid Stepper motors - S series	Torque* (Nm)	
57S41	0,29...0,40	278
57S51	0,49...0,69	279
57S56	0,60...0,84	280
57S76	0,90...1,25	281
86S67	2,30...2,80	282
86S94	3,80...4,80	283
86S125	6,20...7,60	284



BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

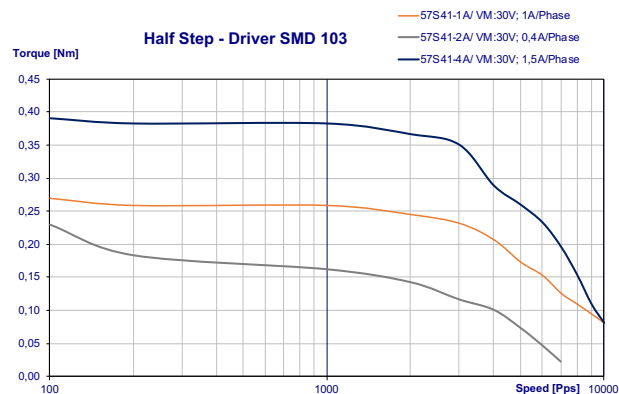
Specification		57S41-1A	57S41-2A	57S41-4A	
1	Rated Voltage	V	4	12	2,8
2	Current/Phase	A	1,1	0,4	1,56
3	Resistance/Phase	Ω	3,6	30	1,8
4	Inductance/Phase	mH	4	30	3,6
5	Holding Torque	Nm	0,288	0,288	0,4
6	Rotor Inertia	gcm ²	57	57	57
7	Detent Torque	Nm	0,018	0,018	0,018
8	n° of Leads		6	6	4
9	Length (L)	mm	41	41	41
10	Weight	Kg	0,54	0,54	0,54

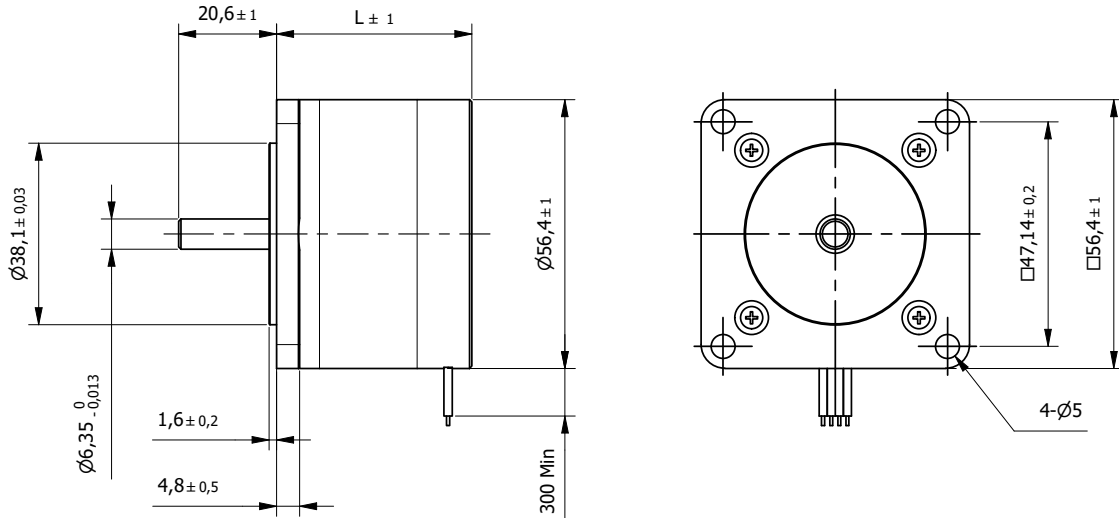
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	75N
Max Axial Force	15N
Dielectric Strength (for 1 min.)	500 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP56	Aries
E4	56JMS	Libra
E5		Orion
		Aquarius

* other options on request

Connection			
Lead n°	Color	Gauge	Function
1	Black	UL1061 AWG22	Phase A
2	Green		Phase A-
3	Red		Phase B
4	Blue		Phase B-
Unipolar motor			
5	Yellow		COM Phase A
6	White		COM Phase B





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

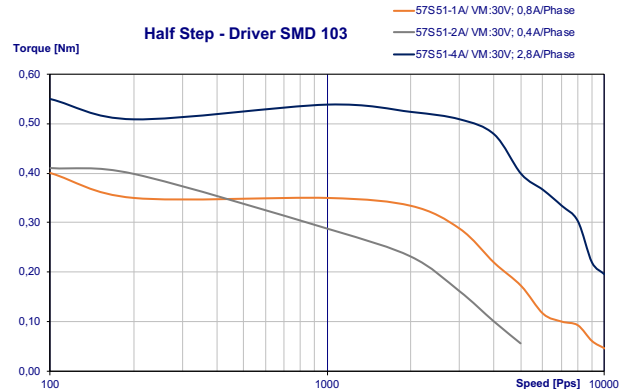
Specification		57S51-1A	57S51-2A	57S51-4A	
1	Rated Voltage	V	6	12	2,38
2	Current/Phase	A	0,85	0,42	2,8
3	Resistance/Phase	Ω	7,1	29	0,85
4	Inductance/Phase	mH	9	36	2,1
5	Holding Torque	Nm	0,49	0,49	0,69
6	Rotor Inertia	gcm ²	110	110	110
7	Detent Torque	Nm	0,035	0,035	0,035
8	n° of Leads		6	6	4
9	Length (L)	mm	51	51	51
10	Weight	Kg	0,6	0,6	0,6

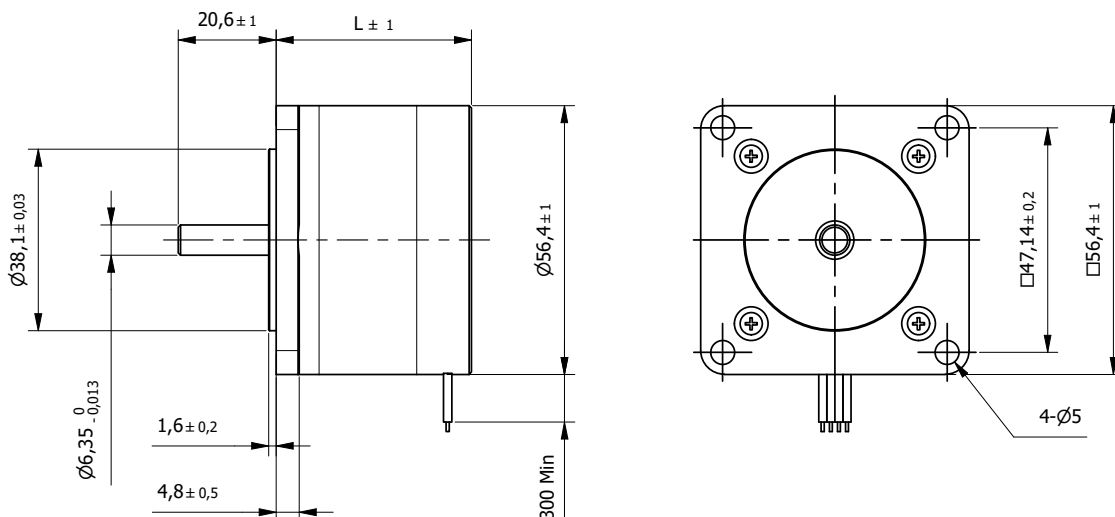
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	75N
Max Axial Force	15N
Dielectric Strength (for 1 min.)	500 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Connection			
Lead n°	Color	Gauge	Function
1	Black	UL1061 AWG22	Phase A
2	Green		Phase A-
3	Red		Phase B
4	Blue		Phase B-
Unipolar motor			
5	Yellow		COM Phase A
6	White		COM Phase B

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP56	Aries
E4	56JMS	Libra
E5		Orion
		Aquarius

* other options on request





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

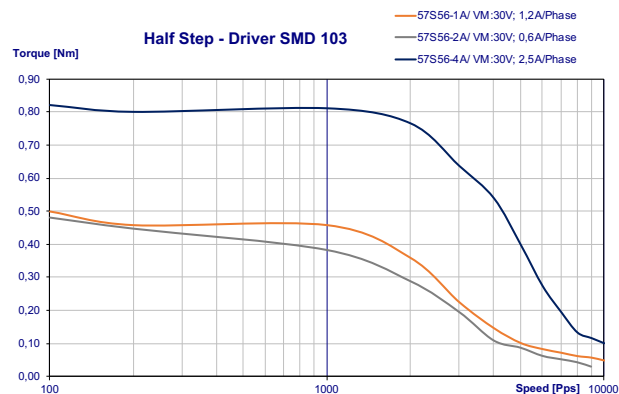
Specification		57S56-1A	57S56-2A	57S56-4A	
1	Rated Voltage	V	6	12	2,8
2	Current/Phase	A	1,2	0,6	2,5
3	Resistance/Phase	Ω	5	20	1,1
4	Inductance/Phase	mH	8	32	3,6
5	Holding Torque	Nm	0,605	0,605	0,84
6	Rotor Inertia	gcm ²	135	135	135
7	Detent Torque	Nm	0,042	0,042	0,042
8	n° of Leads		6	6	4
9	Length (L)	mm	56	56	56
10	Weight	Kg	0,65	0,65	0,65

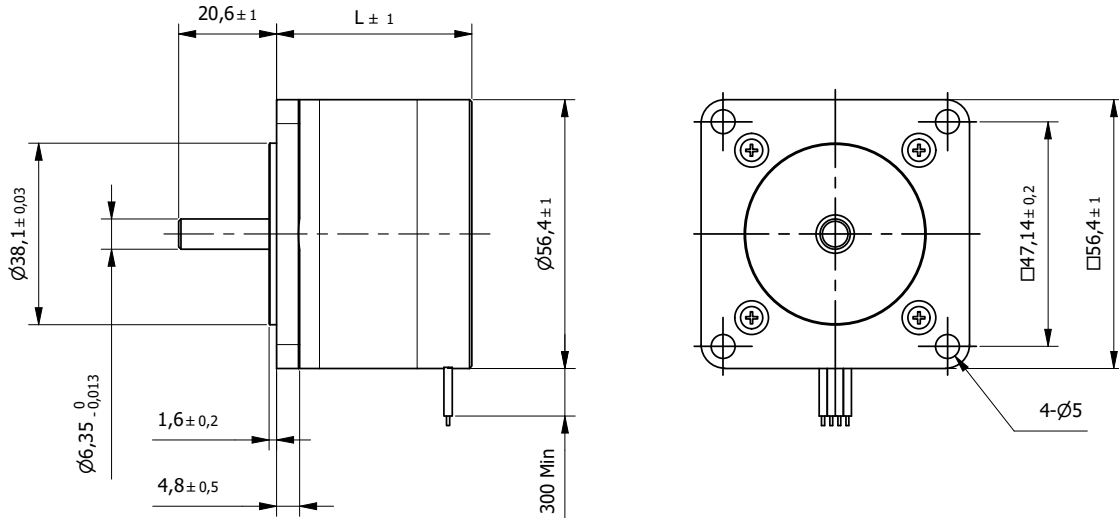
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	75N
Max Axial Force	15N
Dielectric Strength (for 1 min.)	500 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP56	Aries
E4	56JMS	Libra
E5		Orion
		Aquarius

* other options on request

Connection			
Lead n°	Color	Gauge	Function
1	Black	UL1061 AWG22	Phase A
2	Green		Phase A-
3	Red		Phase B
4	Blue		Phase B-
Unipolar motor			
5	Yellow		COM Phase A
6	White		COM Phase B





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

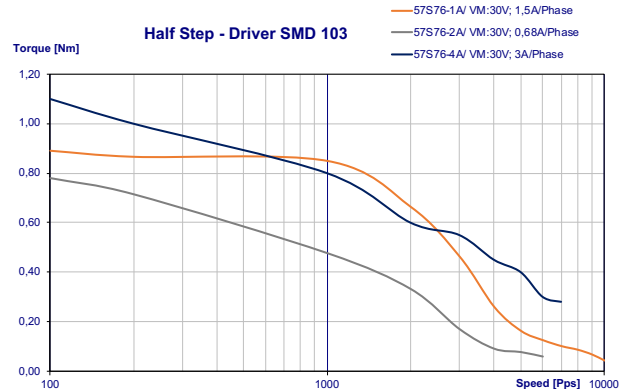
Specification			57S76-1A	57S76-2A	57S76-4A
1	Rated Voltage	V	5,4	12	2,7
2	Current/Phase	A	1,5	0,68	3,3
3	Resistance/Phase	Ω	3,6	17,7	0,85
4	Inductance/Phase	mH	6	30	3
5	Holding Torque	Nm	0,9	0,9	1,25
6	Rotor Inertia	gcm ²	200	200	200
7	Detent Torque	Nm	0,072	0,072	0,072
8	n° of Leads		6	6	4
9	Length (L)	mm	76	76	76
10	Weight	Kg	0,95	0,95	0,95

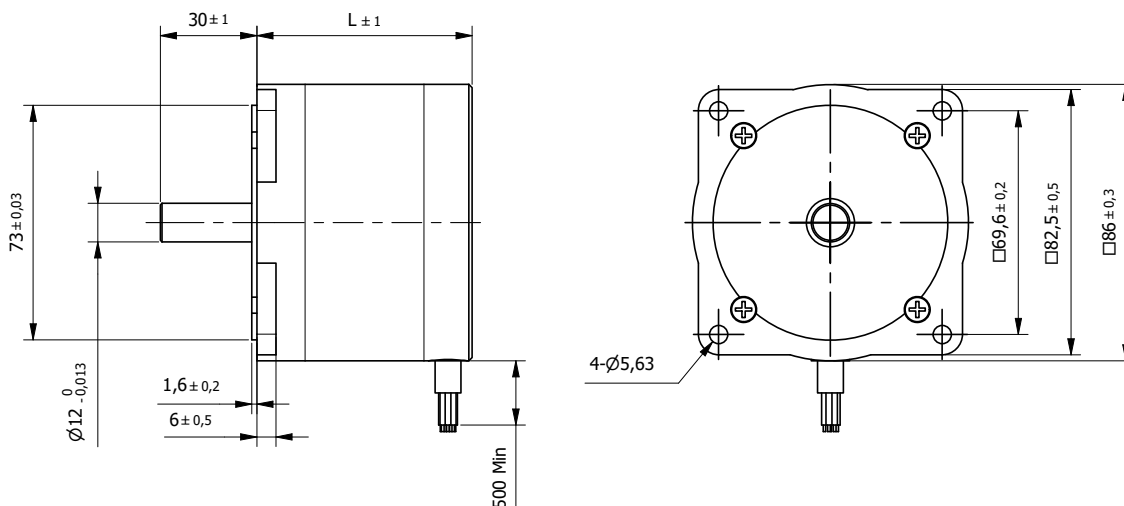
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	75N
Max Axial Force	15N
Dielectric Strength (for 1 min.)	500 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Connection			
Lead n°	Color	Gauge	Function
1	Black	UL1061 AWG22	Phase A
2	Green		Phase A-
3	Red		Phase B
4	Blue		Phase B-
Unipolar motor			
5	Yellow		COM Phase A
6	White		COM Phase B

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP56	Aries
E4	56JMS	Libra
E5		Orion
		Aquarius

* other options on request





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

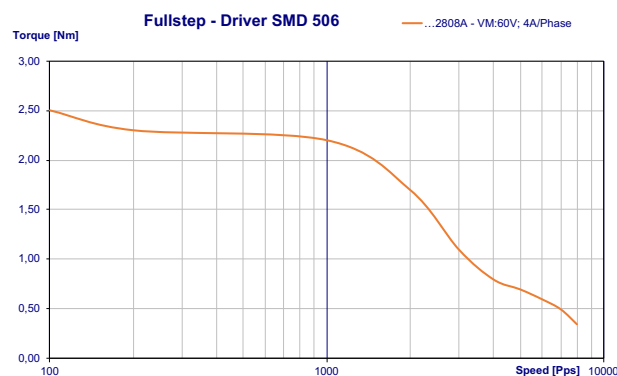
Specification		86S67-2808A		
Model		Unipolar	Parallel	Series
1	Rated Voltage	V	3,64	2,54
2	Current/Phase	A	2,8	3,92
3	Resistance/Phase	Ω	1,3	0,65
4	Inductance/Phase	mH	5,1	5,1
5	Holding Torque	Nm	2,3	2,8
6	Rotor Inertia	gcm ²	660	660
7	Detent Torque	Nm	0,085	0,085
8	n° of Leads		8	8
9	Length (L)	mm	67	67
10	Weight	Kg	1,6	1,6

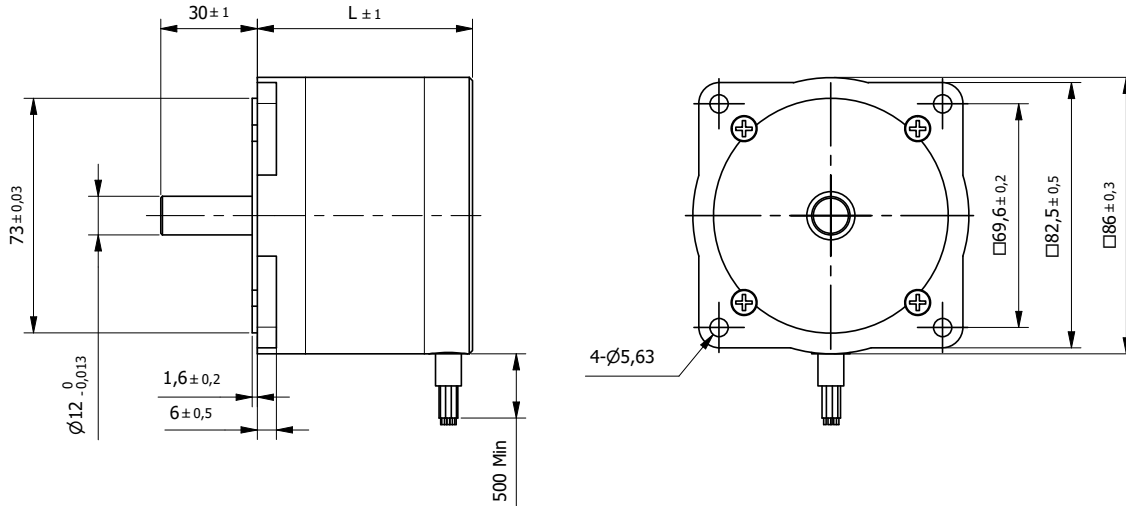
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	220N
Max Axial Force	60N
Dielectric Strength (for 1 min.)	750 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP80	Aries
E4		Libra
E5		Sagittarius
		Aquarius

* other options on request

Connection			
Lead n°	Color	Gauge	Function
1	Orange	UL3266 AWG20	Phase A
2	Orange/White		Phase A-
3	Black/White		Phase C-
4	Black		Phase C
5	Red		Phase B
6	Red/White		Phase B-
7	Yellow/White		Phase D -
8	Yellow		Phase D





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

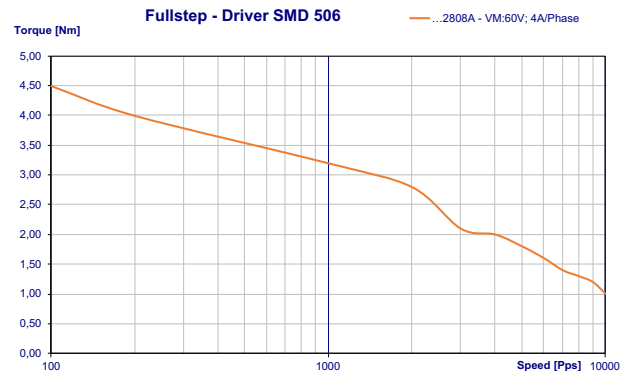
Specification		86S94-2808A			
Model		Unipolar	Parallel	Series	
1	Rated Voltage	V	4,76	2,54	6,6
2	Current/Phase	A	2,8	3,92	1,96
3	Resistance/Phase	Ω	1,7	0,85	3,4
4	Inductance/Phase	mH	7,7	7,7	30,8
5	Holding Torque	Nm	3,8	4,8	4,8
6	Rotor Inertia	gcm ²	1200	1200	1200
7	Detent Torque	Nm	0,13	0,13	0,13
8	n° of Leads		8	8	8
9	Length (L)	mm	94	94	94
10	Weight	Kg	2,4	2,4	2,4

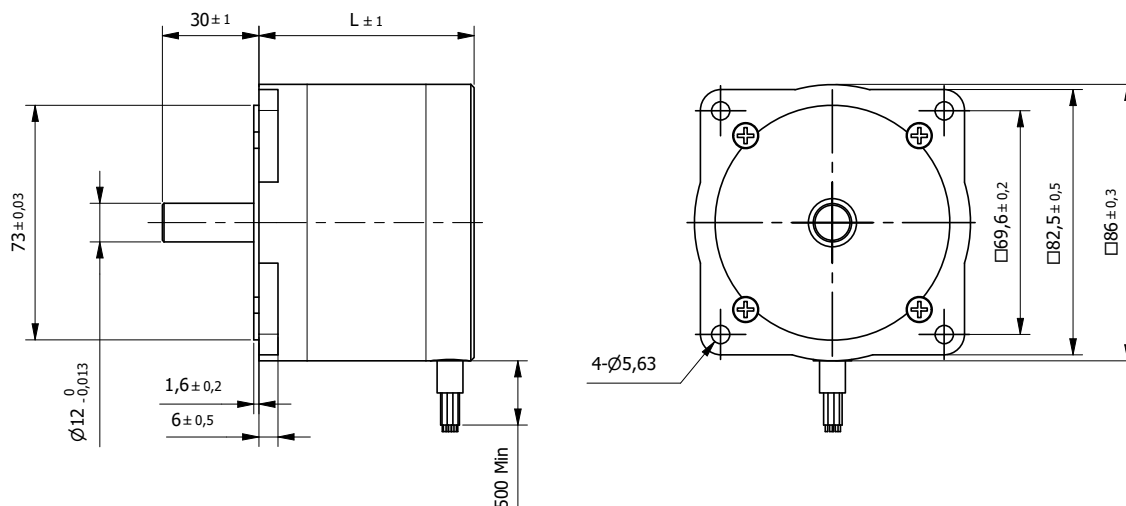
Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	220N
Max Axial Force	60N
Dielectric Strength (for 1 min.)	750 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP80	Aries
E4		Libra
E5		Sagittarius
		Aquarius

* other options on request

Connection			
Lead n°	Color	Gauge	Function
1	Orange	UL3266 AWG20	Phase A
2	Orange/White		Phase A-
3	Black/White		Phase C-
4	Black		Phase C
5	Red		Phase B
6	Red/White		Phase B-
7	Yellow/White		Phase D -
8	Yellow		Phase D





BE Version: Rear shaft 13mm - 2x M2.5 on diameter 46mm

Specification		86S125-3508A			
Model		Unipolar	Parallel	Series	
1	Rated Voltage	V	4,97	3,47	6,95
2	Current/Phase	A	3,5	4,9	2,45
3	Resistance/Phase	Ω	1,42	0,71	2,84
4	Inductance/Phase	mH	7,9	7,9	31,6
5	Holding Torque	Nm	6,2	7,6	7,6
6	Rotor Inertia	gcm ²	1800	1800	1800
7	Detent Torque	Nm	0,23	0,23	0,23
8	n° of Leads		8	8	8
9	Length (L)	mm	125	125	125
10	Weight	Kg	3,6	3,6	3,6

Characteristics	
Item	
Step angle	1,8°
Step angle Accuracy	±5%
Insulation Class	B
Protection Class	IP30
Ambient Temperature	-20°C to +50°C
Max. Temp. Rise (rated current, 2-phase on)	80°C
Max. Shaft Radial play (450g load)	0,02mm
Max. Shaft Axial play (450g load)	0,08mm
Max. Radial Force (20mm from front flange)	220N
Max Axial Force	60N
Dielectric Strength (for 1 min.)	750 VAC
Insulation Resistance (min. 500 VDC)	100 Mohm

Standard Combination		
Encoder	Gearbox	Drive
E3	GYP80	Libra
E4		Sagittarius
E5		Aquarius
		Andromeda

* other options on request

Connection			
Lead n°	Color	Gauge	Function
1	Orange	UL3266 AWG20	Phase A
2	Orange/White		Phase A-
3	Black/White		Phase C-
4	Black		Phase C
5	Red		Phase B
6	Red/White		Phase B-
7	Yellow/White		Phase D -
8	Yellow		Phase D

