

# BRUSHLESS DC MOTOR



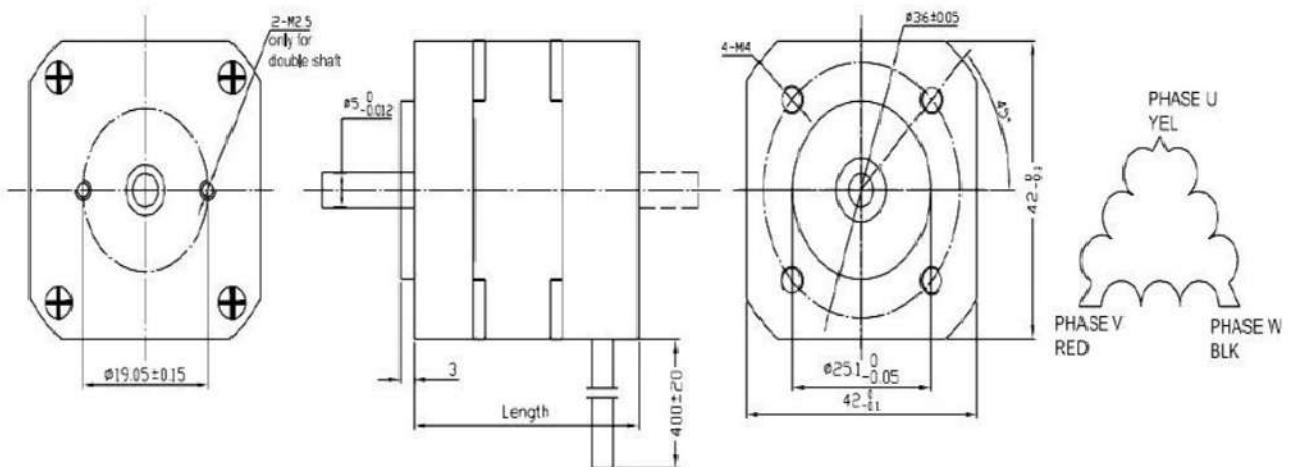
ALFATECH ENGINEERS PVT. LTD.

## 42 MM BRUSHLESS DC MOTOR

### GENERAL SPECIFICATIONS:-

Hall effect angle	120 degree electrical angle	
Shaft run out	0.025mm	
Radial play	0.02mm@450g	
End play	0.08mm@450g	
Max. radial force	28N @ 20mm from the flange	
Max. axial force	10N	
Insulation class	Class B	
Dielectric strength	500VDC for one minute	
Insulation resistance	100M Min., 500VDC	

### DIAGRAM:-



# BRUSHLESS DC MOTOR



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## 42 MM BRUSHLESS DC MOTOR

### ELECTRICAL SPECIFICATIONS

Model	SM42BLS41	SM42BLS61	SM42BLS81	SMBLS100
Number of poles	8			
Number of phase	3			
Rated voltage (VDC)	24			
Rated speed (RPM)	4000			
Continuous stall torque (N.m)	0.075	0.15	0.22	0.3
Rated torque (N.m)	0.0625	0.125	0.185	0.25
Rated power (W)	26	52.5	77.5	105
Peak torque (N.m)	0.19	0.38	0.56	0.75
Peak current (A)	5.4	10.6	15.5	20
Line to line resistance (Ohms)	1.8	0.8	0.55	0.28
Line to line inductance (mH)	2.6	1.2	0.8	0.54
Torque constant (Nm/A)	0.035	0.0355	0.036	0.0376
Back E.M.F (Vrms/KRPM)	3.66	3.72	3.76	3.94
Rotor inertia (g.cm <sup>2</sup> )	24	48	72	96
Body length (mm)	41	61	81	100
Weight (Kg)	0.30	0.45	0.65	0.8

# BRUSHLESS DC MOTOR



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## 57 MM BRUSHLESS DC MOTOR

### GENERAL SPECIFICATIONS:-



### GENERAL SPECIFICATIONS

Hall effect angle	electrical angle
Shaft run out	0.025mm
Radial play	0.02mm@450g
End play	0.08mm@450g
Max. radial force	75N @ 20mm from the flange
Max. axial force	15N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100M Min., 500VDC

# BRUSHLESS DC MOTOR



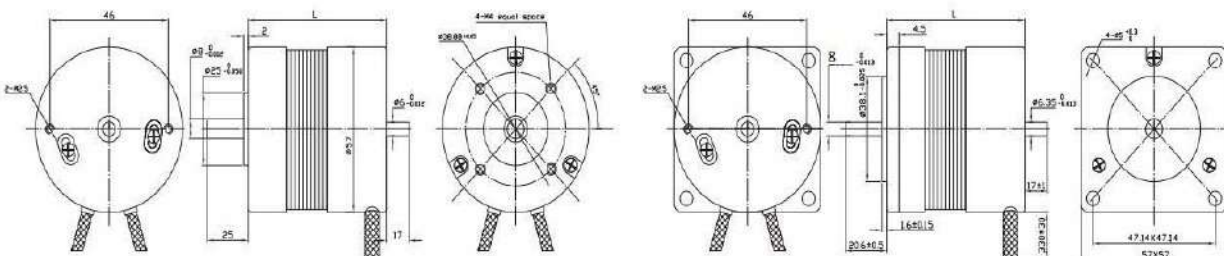
ALFATECH ENGINEERS PVT. LTD.

## 57 MM BRUSHLESS DC MOTOR

### ELECTRICAL SPECIFICATIONS

Model	SM57BL(S)55	SM57BL(S)75	SM57BL(S)95	SM57BL(S)115
Number of poles	4			
Number of phase	3			
Rated voltage VDC	24			
Rated speed RPM	3000			
Rated torque N.m	0.11	0.22	0.32	0.43
Rated power W	46	92	133	180
Peak torque N.m	0.39	0.7	1	1.27
Peak current A	6.8	11.5	16.5	20.5
resistance ohms	1.5	0.7	0.45	0.35
inductance mH	4.2	2.16	1.4	1
Torque constant Nm/A	0.063	0.063	0.063	0.063
Back E.M.F V/KRPM	6.6	6.6	6.6	6.6
Rotor inertia g.cm <sup>2</sup>	75	119	173	230
Body length(L) mm	55	75	95	115
Weight Kg	0.5	0.75	1	1.25

### Dimension:



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# BRUSHLESS DC MOTOR



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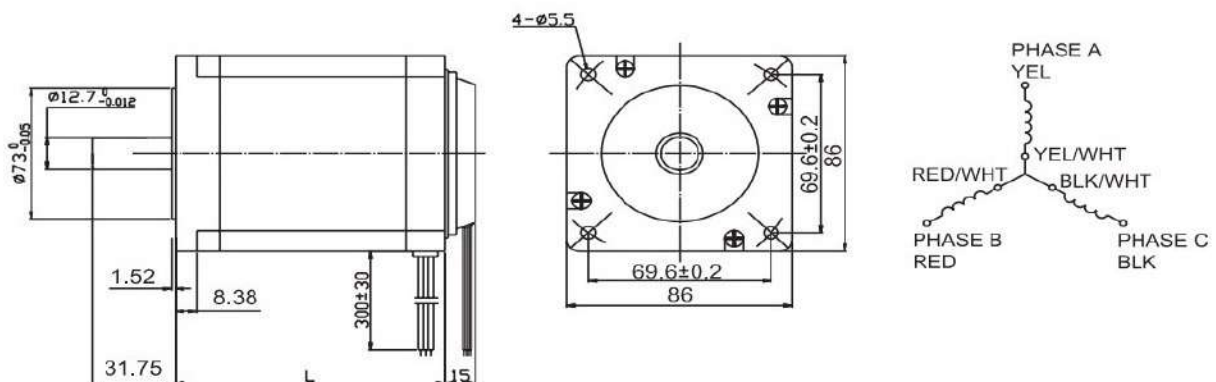
## 86 MM BRUSHLESS DC MOTOR

### GENERAL SPECIFICATIONS:-

Item	Specification
Winding type	Delta
Hall effect angle	120degree electrical angle
Shaft run out	0.025mm
Radial play	0.02mm@450g
End play	0.08mm@450g
Max.radial force	220N @ 20mm from the flange
Max.axial force	60N
Insulation class	Class B
Dielectric Strength	500VDC for one minute
Insulation resistance	100MΩMin.500VDC



### Dimensions Diagram (mm)



# BRUSHLESS DC MOTOR



ALFATECH ENGINEERS PVT. LTD.

## 86 MM BRUSHLESS DC MOTOR

### ELECTRICAL SPECIFICATIONS

Model	SM86BLS58	SM86BLS71	SM86BLS98	SM86BLS125
Number of phase	3			
Rated voltage VDC	48			
Rated speed RPM	3000			
Rated torque N.m	0.35	0.7	1.4	2.1
Rated power W	110	220	440	660
Peak torque N.m	1.05	2.1	4.2	6.3
Peak current A	11	19	33	55
Resistance ohms	1.05	0.36	0.2	0.16
Inductance mH	2.2	1.05	0.48	0.3
Torque constant Nm/A	0.1	0.11	0.13	0.11
Back E.M.F V/KRPM	10.5	11.5	13.5	11.5
Rotor inertia g.cm <sup>2</sup>	400	800	1600	2400
Body length(L) mm	58	71	98	125
Weight Kg	1.5	1.85	2.6	4