

# HIGH-PERFORMANCE BRUSHLESS MOTORS Ø48



**24V**

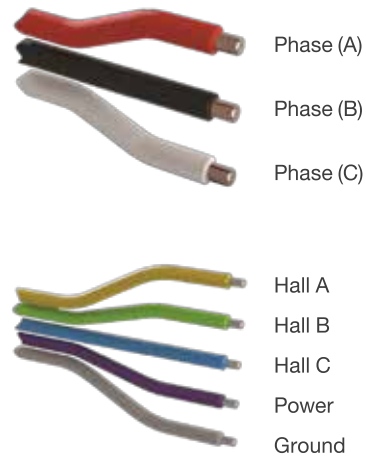
EBL48S1K9A2-24

**36V**

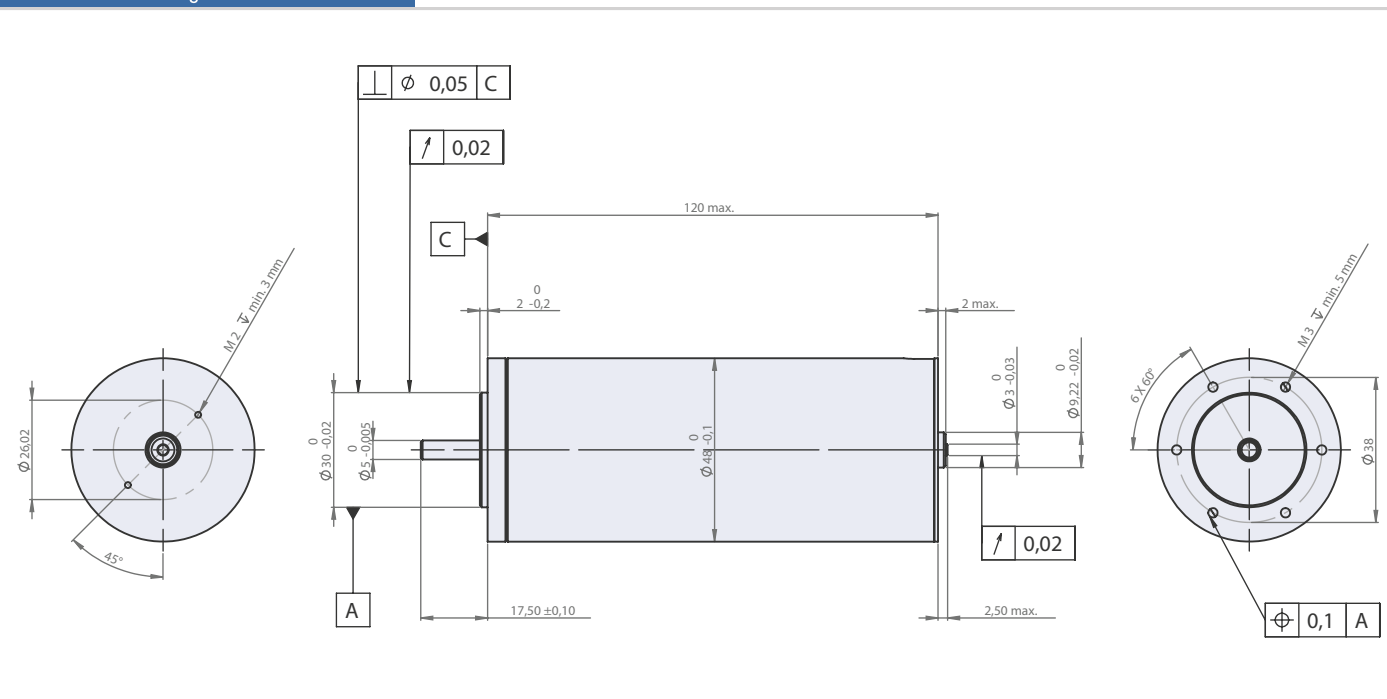
EBL48S1K12A2-36

**48V**

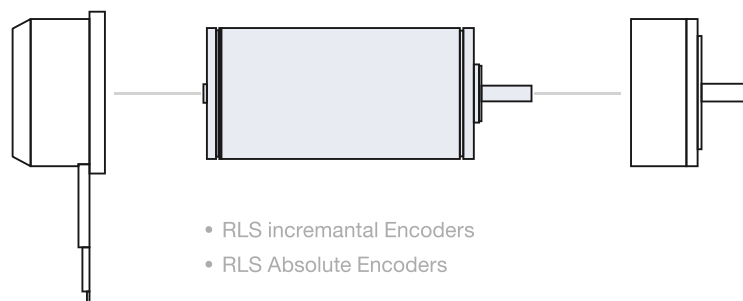
EBL48S1K13A2-48



## Dimensional Drawing



## Modular System



## Product Adaptations

- Other dimensions
- Without housing
- Without hall sensors
- With temperture sensor
- Connector options recording to customer needs

## Basic Motor Parameters

		EBL48S1K9A2-24	EBL48S1K12A2-36	EBL48S1K13A2-48
Nominal Speed	RPM	9872	12028	13434
Nominal Power	W	700	700	700
Maximum Continuous Torque	Nm	0.67	0.55	0.5
Nominal Current	A	25	22	17
No-Load Speed	RPM	10671	12805	14228
Efficiency	%	88	87	86
Stall Torque	Nm	15.15	16.32	16.26
Stall Current	A	1235	1176	970

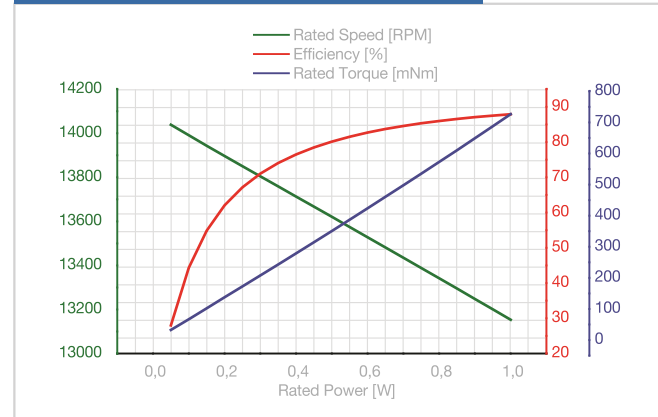
## Electrical Characteristics

		EBL48S1K9A2-24	EBL48S1K12A2-36	EBL48S1K13A2-48
Number of Phases		3	3	3
Number of Poles		4	4	4
Operating Temperature	°C	-55 >> +85	-55 >> +85	-55 >> +85
Phase-to-Phase Resistance	mΩ	9.6 ± 10%	15.2 ± 10%	24.68 ± 10%
Phase-to-Phase Inductance	mH	0.014 ± 10%	0.022 ± 10%	0.032 ± 10%
Rated-Torque Constant	mNm/A	20.39 ± 10%	24.59 ± 10%	28.85 ± 10%
Back -EMF Constant	Vs/rad	21.66 ± 10%	27.07 ± 10%	32.49 ± 10%
Dielectric Strength at 1000V	MΩ	500 (min.)	500 (min.)	500 (min.)

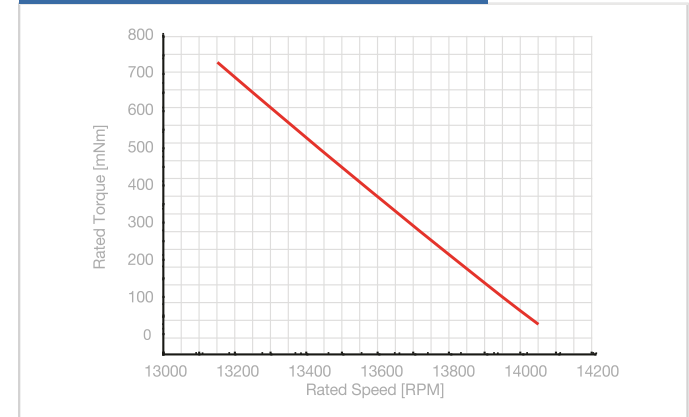
## Physical Characteristics

		EBL48S1K9A2-24	EBL48S1K12A2-36	EBL48S1K13A2-48
Service Life	h	18000	18000	17000
Weight	g	850 ± 10%	850 ± 10%	850 ± 10%
Length	mm	120 (max.)	120 (max.)	120 (max.)
Outer Diameter	mm	48 (max.)	48 (max.)	48 (max.)
Shaft Diameter	mm	5	5	5
Bearing		NSK Ball Bearing	NSK Ball Bearing	NSK Ball Bearing

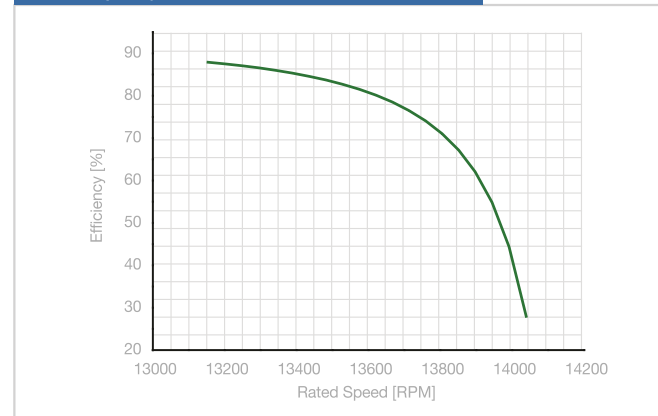
## Performance Chart @48V



## Torque – Speed Chart @48V



## Efficiency – Speed Chart @48V



## Power – Speed Chart @48V

