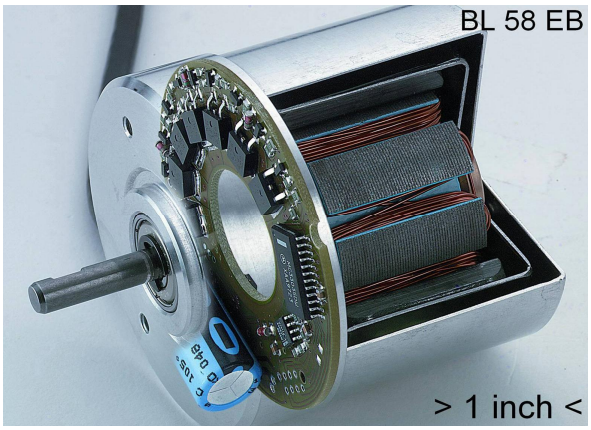
BL Serie - bürstenlose Kleinmotoren

MACON
MOTION UNDER CONTROL



- bürstenlose Kleinmotoren, Außenläufer
- hohe Drehmomentdichte
- wenig Rastmoment
- hohe Lebensdauer >20.000h
- 4 Baugrößen mit jeweils mehreren Baulängen
- Dauermomente von 2 bis 355mNm
- Wicklungen für 12 / 24 / 36 / 48Vdc
- elektrische Anschlüsse: flying leads
- optional mit integrierter Elektronik für Drehzahlregelung
- optionales Getriebe
- Sonderausführungen möglich

	Motor Performance					Planeten-Getriebe		Stirnrad-Getriebe		Encoder
	Leistung	Spannung	Dreh-moment	Dreh-zahl	Bau-größe	Typ	Dreh-moment		Dreh-moment	
					d x h					
Motortyp	W	Vdc	mNm	rpm	mm		Nm	Typ	Nm	
BL21 EE 1,0W	1	12	2	0-5.600	21x10,6	-	-	-	-	-
BL21 EE 1,5W	1,5	12	2	0-10.000	21x10,6	PA22A	1	-	-	-
BL48 EB 8W	8	12 / 24	22	1.100-2.600	54x30	PA42A	12	S69A	9	-
BL48 EB 12W	12	12 / 24	30	1.100-2.600	54x36,75	PA42A	12	S69A	9	-
BL58 EB 35W	35	24	110	100-3.000	68x62,1	PA50A, P59A	18/25	S69A	3 / 9	ja
BL58 EB compact 35W	35	24	80	100-4.000	68x49,1	PA50A, P59A	18/25	S69A	3 / 9	ja
BL58 EB 50W	50	24	120	100-4.000	68x62,1	PA50A, P59A	18/25	S69A	3 / 9	ja
BL58 EB 50W High Torque	50	24	170	100-2.700	68x62,1	PA50A, P59A	18/25	S69A	3 / 9	ja
BL58 EE 70W	70	12/24/36	210	0-3.500	68x62,1	PA50A, P59A	18/25	S64A, S69A	3 / 9	ja
BL70 EB 85W	85	24/42	215	0-3.800	69x95	-	-	-	-	ja
BL70 EB 95W	95	24/42	285	0-3.100	69x109	-	-	-	-	ja
BL70 EB 110W	110	24/42	355	0-3.000	69x123	-	-	-	-	ja

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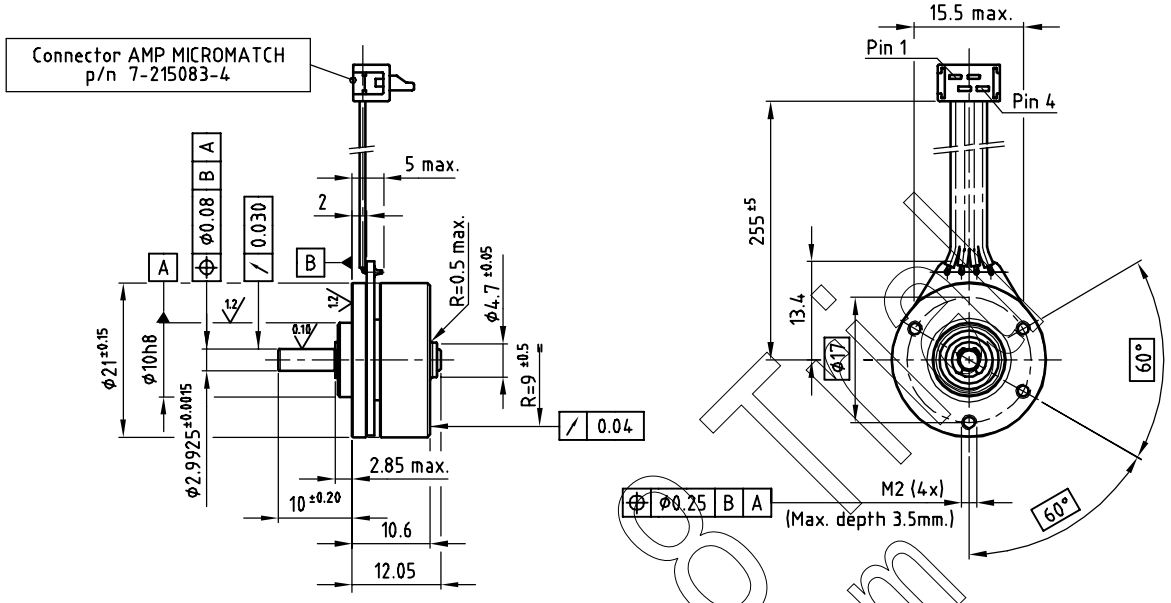
BL21 EE Brushless DC motor 1.0 Watt

Dimensional drawing



Motor data

Motor order number	4322 016 21011	
Nominal Voltage	[V]	12
No load Speed	[rpm]	5600
Torque constant	[mNm/A]	17
Stator resistance between two phases	[Ohm]	39
Stator inductance between two phases	[mH]	5
Mechanical time constant	[ms]	75
Max. winding temperature	[°C]	90
Thermal resistance from winding to ambient	[K/W]	62
Thermal resistance from winding to ambient with cooling plate (aluminium, 100x100x2)	[K/W]	32
Operating temperature range	[°C]	0 / +50
Insultation resistance at 500 V	[M Ohm]	min. 1
Rotor inertia	[kgm ²]	0.53x10⁻⁶
Mass of motor	[g]	16

Maximum radial load 8 mm from mounting front at 6000 rpm (no axial load towards flange)	[N]	3.0
Maximum axial load at 6000 rpm – towards flange (no radial load) – from flange	[N] [N]	2.0 1.0

Brushless DC motor with laminated 9 coil stator and 12 pole rotor, fitted with 4 wire flat cable and connector.
Motor using sensorless drive technology, to be used in combination with back-EMF commutating motor-IC (like Philips TDA 51.... family).
Coil configuration: 3 phases, Y connected.

For thermal reasons it is advised to mount the motor on a heat conducting frame if high output power is desired.

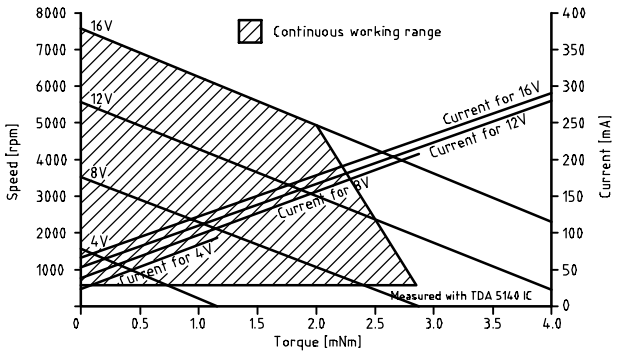
Electrical Connection

Pin no.	Description
1	Centre tap
2,3,4	Phase leads

Options

* Gearboxes

Performance curve

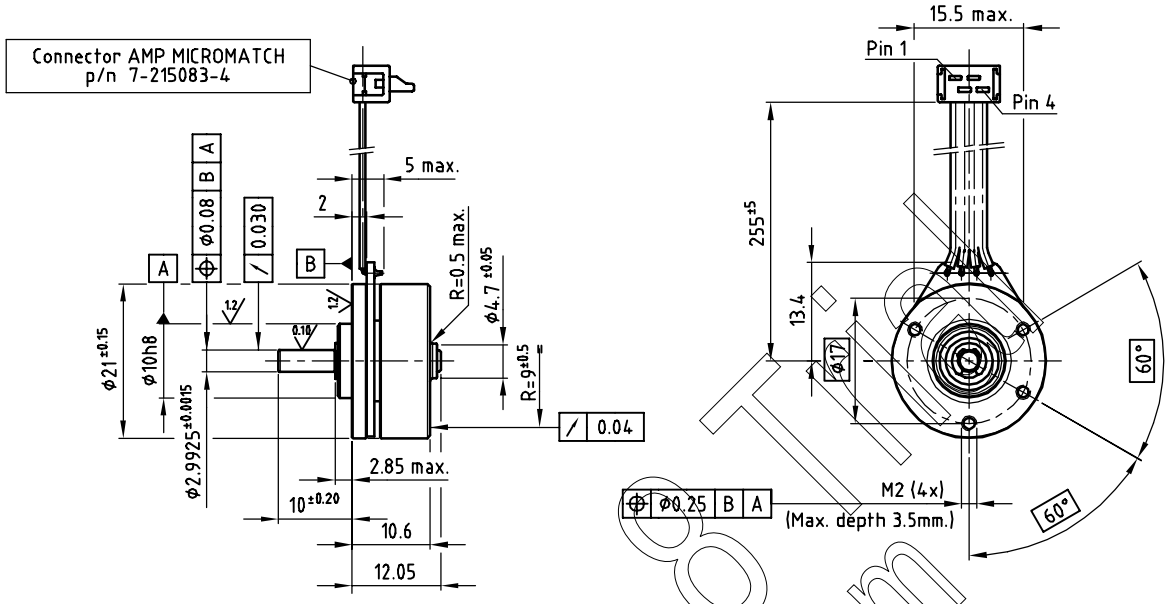


Features

* Compact, low mounting profile
* Low acoustical noise
* Long life (20.000 hours)
* Low EMI

BL21 EE Brushless DC motor 1.5 Watt

Dimensional drawing



Motor data

Motor order number	4322 016 21001	
Nominal Voltage	[V]	10
No load Speed	[rpm]	10000
Torque constant	[mNm/A]	7.9
Stator resistance between two phases	[Ohm]	10
Stator inductance between two phases	[mH]	1.0
Mechanical time constant	[ms]	95
Max. winding temperature	[°C]	90
Thermal resistance from winding to ambient	[K/W]	62
Thermal resistance from winding to ambient with cooling plate (aluminium, 100x100x2)	[K/W]	32
Operating temperature range	[°C]	0 / +50
Insultation resistance at 500 V	[M Ohm]	min. 1
Rotor inertia	[kgm ^{2}]	0.53×10^{-6}
Mass of motor	[g]	16

Maximum radial load 8 mm from mounting front at 6000 rpm (no axial load towards flange)	[N]	3.0
Maximum axial load at 6000 rpm – towards flange (no radial load) – from flange	[N] [N]	2.0 1.0

Brushless DC motor with laminated 9 coil stator and 12 pole rotor, fitted with 4 wire flat cable and connector.
Motor using sensorless drive technology, to be used in combination with back-EMF commutating motor-IC (like Philips TDA 51.... family).
Coil configuration: 3 phases, Y connected.

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Pin no.	Description
1	Centre tap
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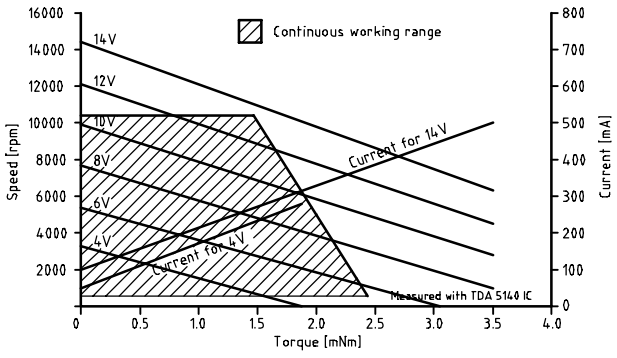
Performance curve



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