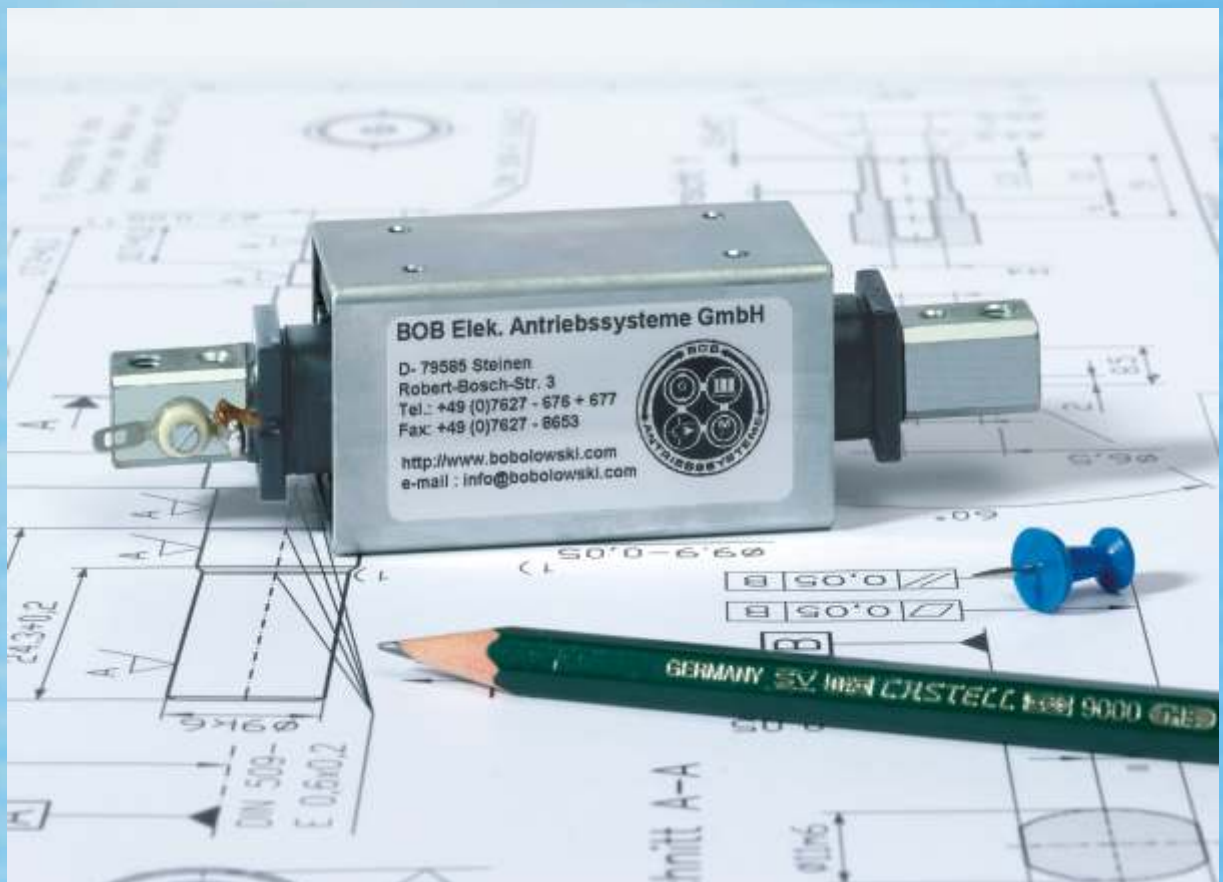


The new high precision
DC linear motor

The designer`s dream!

We bring dynamics to short strokes!



GTL

High thrust combined with

- Compact design
- Little moving mass
- High efficiency
- Excellent cost-effectiveness

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The new BOB-Motors make it possible

GTL 34

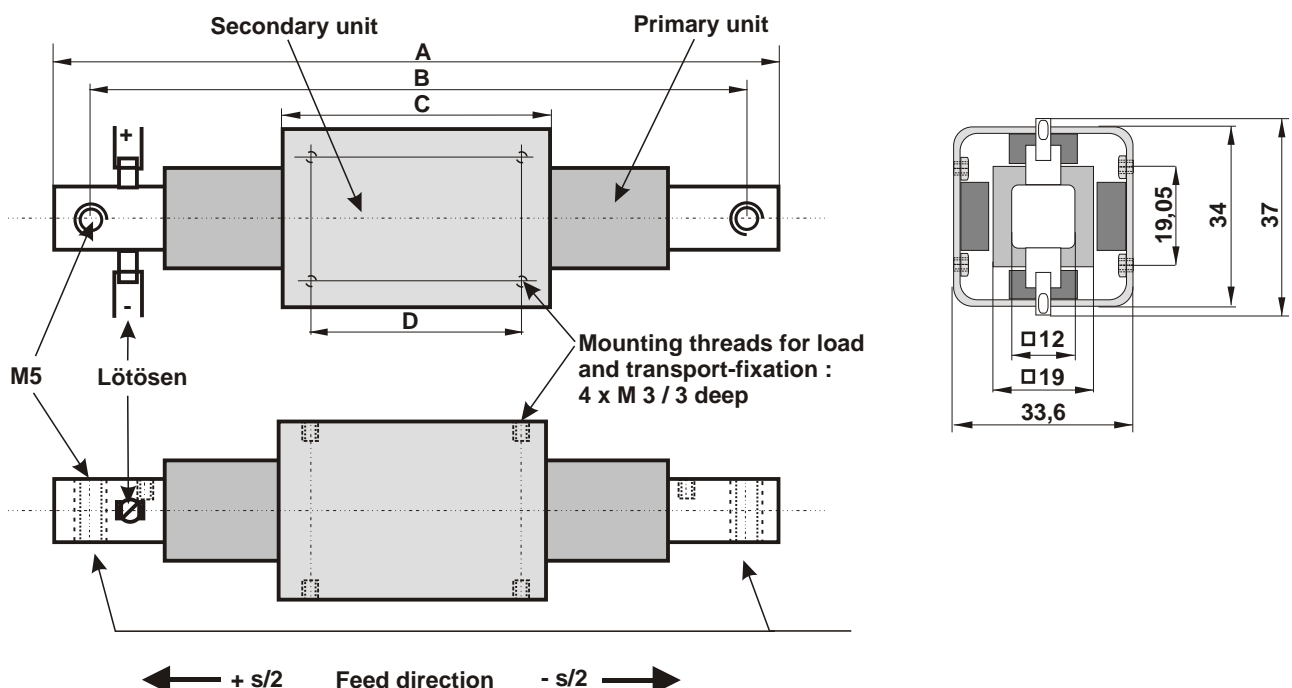


DC linear servo motors
for little load and short stroke
bearingless design
for maximum bus voltage U_{ZW} 150 V

The new, compact
motion drive from BOB

Motor	Stroke s (mm)	Thrust			Mass		Dimensions			
		F_{Cc} (N)	F_{Cu} (N)	F_{MAX} (N)	m_T (g)	m_s (g)	A (mm)	B (mm)	C (mm)	D (mm)
GTL 34 - 11 / 13 - 1 - S	13	10,7	7,7	52,5	250	106	94	85	39	19
GTL 34 - 11 / 18 - 1 - S	18	10,0	7,4	46,2	275	115	106	97	44	22
GTL 34 - 11 / 25 - 1 - S	25	8,9	6,8	38,1	310	128	118	109	51	29
GTL 34 - 11 / 30 - 1 - S	30	8,0	6,3	29,9	335	137	132	123	56	34
GTL 34 - 17 / 06 - 1 - S	6	14,6	10,5	65,0	273	137	94	85	44	22
GTL 34 - 17 / 13 - 1 - S	13	13,2	9,9	58,0	310	149	106	97	51	29
GTL 34 - 17 / 18 - 1 - S	18	12,6	9,6	51,0	341	159	118	109	56	34
GTL 34 - 17 / 25 - 1 - S	25	11,5	9,0	42,0	378	171	132	123	63	41
GTL 34 - 17 / 32 - 1 - S	32	10,3	8,2	33,0	415	183	144	135	70	48
GTL 34 - 23 / 06 - 1 - S	6	16,3	12,1	84,9	337	178	106	97	56	34
GTL 34 - 23 / 13 - 1 - S	13	15,1	11,6	75,8	382	194	118	109	63	41
GTL 34 - 23 / 20 - 1 - S	20	14,4	11,3	66,7	420	207	132	123	70	48
GTL 34 - 23 / 25 - 1 - S	25	13,4	10,7	54,9	464	222	144	135	75	53

F_{Cc} : Continuous force (mounting-plane- $R_{th} < 3K/W$)
 F_{Cu} : Continuous force without heat-transfer to mounting surface
 F_{MAX} : Maximum force
 m_T : Total mass
 m_s : Mass secondary unit



For our wide range of linear and servo motors please ask for additional, detailed information
Own design and production All products Made in Germany



BOB DC linear motor

Type GTL description and order-key-code

Linear motor series GTL

The GTL is a small stroke linear motor with iron core.
The concentric coil with iron core is fixed, while the magnet housing is moving.
The motor has no slides or guide ways. External guide ways in the application can be coupled directly to the moving part of the motor. The motor tolerates 1 mm in parallelism of guidance.

Areas of application

Small movements with high speed or high precision. Typical application mass is 1 kg or less.

Features

- High force to mass ratio
- Simple installation due to lack of motor guide ways and low requirements on external slides
- No moving wiring because the coil is fixed, magnets are moving
- High linearity, constant force to motor current qualifies the GTL motor for high precision applications

Order-key-code

GTL	AA	-	LL	/	HH	-	x	-	m
-----	----	---	----	---	----	---	---	---	---

Type _____

Code for cross section _____

Code for force _____

Code for stroke _____

Code for magnet _____

1 = Standard

Code for modification _____

S = Standard

C = Modification as requested
by customer
(with Id.-No.-data-sheet)

BOB DC linear motor (short stroke)

GTL 34 - 11 / 13 - S

U_{max} : 150 V

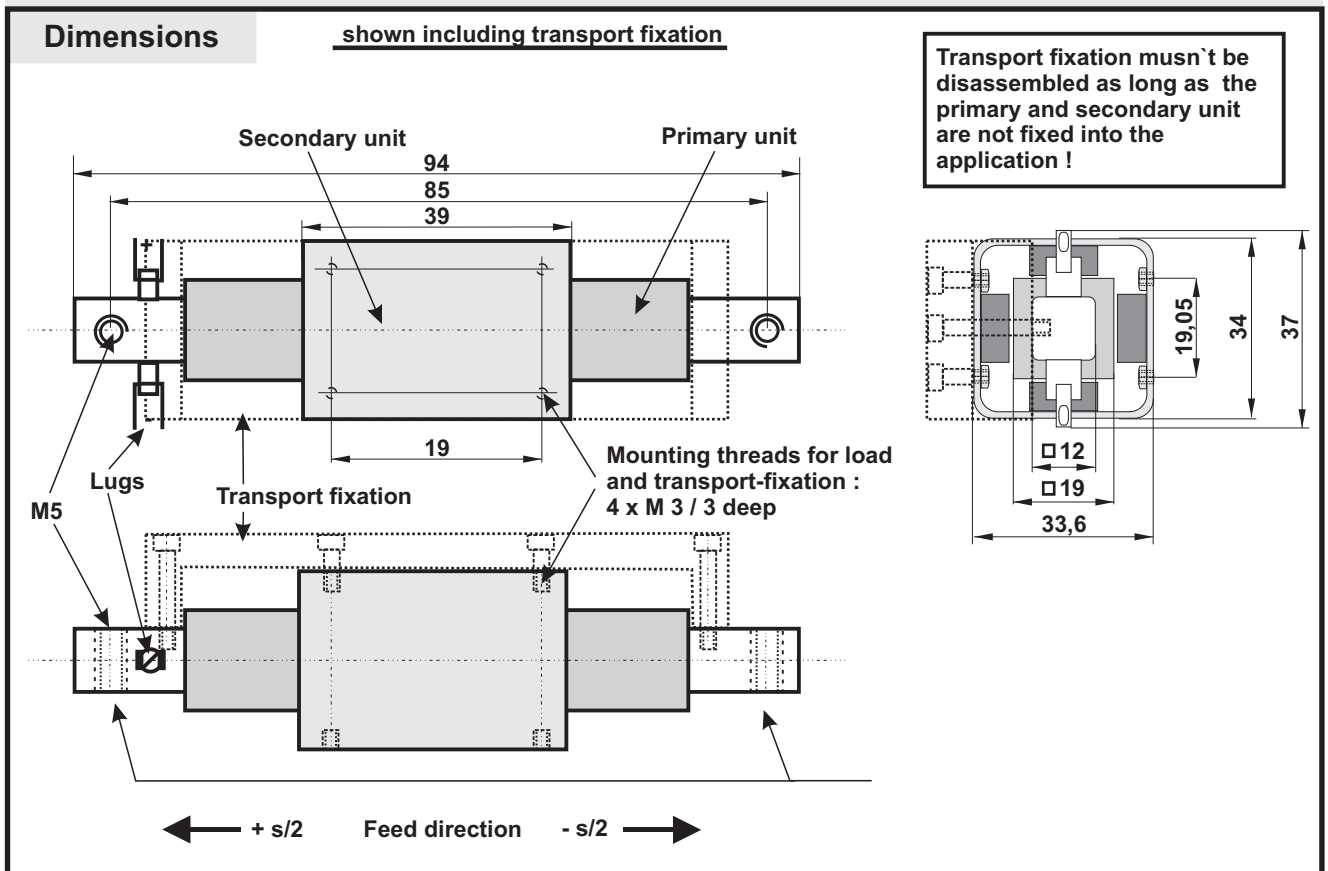
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	10,7	7,7
Maximum force (***)	F _{max}	N	52,5	52,5
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,47	2,60
Max. permitted loss	P _{c max}	W	18,8	8,8
Thermal resistance	R _{th}	K/W	5,06	10,83
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,36	1,61
Maximum current	I _{max}	A	13,8	13,8
Demagnetising current	I _p	A	>18	>18
Back EMF constant	K _e	Vs/m	4,76	4,76
Force constant (at I _c)	K _t	N/A	4,52	4,76
Force constant (at I _{max})	K _{t max}	N/A		3,81
Time constant electrical	τ _e	ms		1,09
DC-resistance (20°C)	R			2,3
Inductance	L	mH		2,5
Stroke	s	mm		13
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		106
Total mass	m _T	g		250

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

The rights are reserved to make changes and modifications to technical specifications, designs, sizes, weights etc.. Measurements in mm

BOB DC linear motor (short stroke)

GTL 34 - 11 / 18 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	10,0	7,4
Maximum force (***)	F _{max}	N	46,2	46,2
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,24	2,36
Max. permitted loss	P _{c max}	W	19,8	9,8
Thermal resistance	R _{th}	K/W	4,80	9,69
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,21	1,55
Maximum current	I _{max}	A	12,1	12,1
Demagnetising current	I _p	A	>18	>18
Back EMF constant	K _e	Vs/m	4,76	4,76
Force constant (at I _c)	K _t	N/A	4,52	4,76
Force constant (at I _{max})	K _{t max}	N/A		3,81
Time constant electrical	t _e	ms		1,25
DC-resistance (20°C)	R			2,8
Inductance	L	mH		3,5
Stroke	s	mm		18
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		115
Total mass	m _T	g		275

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

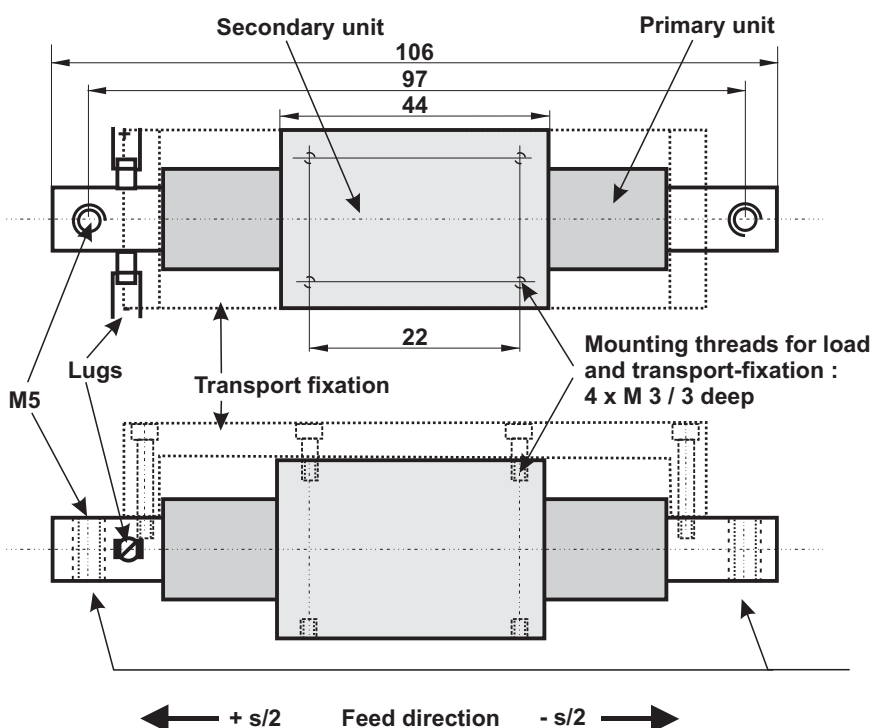
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

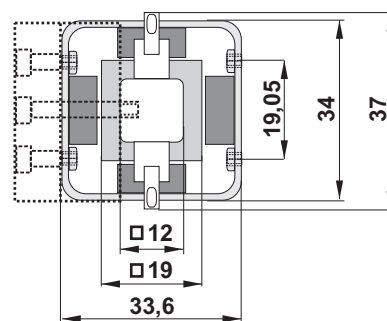
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



BOB DC linear motor (short stroke)

GTL 34 - 11 / 25 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	8,9	6,8
Maximum force (***)	F _{max}	N	38,05	38,05
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	1,94	2,04
Max. permitted loss	P _{C max}	W	21,3	11,3
Thermal resistance	R _{th}	K/W	4,47	8,43
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,04	1,49
Maximum current	I _{max}	A	10,1	10,1
Demagnetising current	I _p	A	>18	>18
Back EMF constant	K _e	Vs/m	4,69	4,69
Force constant (at I _c)	K _t	N/A	4,36	4,59
Force constant (at I _{max})	K _{t max}	N/A		3,75
Time constant electrical	t _e	ms		1,57
DC-resistance (20°C)	R			3,5
Inductance	L	mH		5,5
Stroke	s	mm		25
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		128
Total mass	m _T	g		310

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

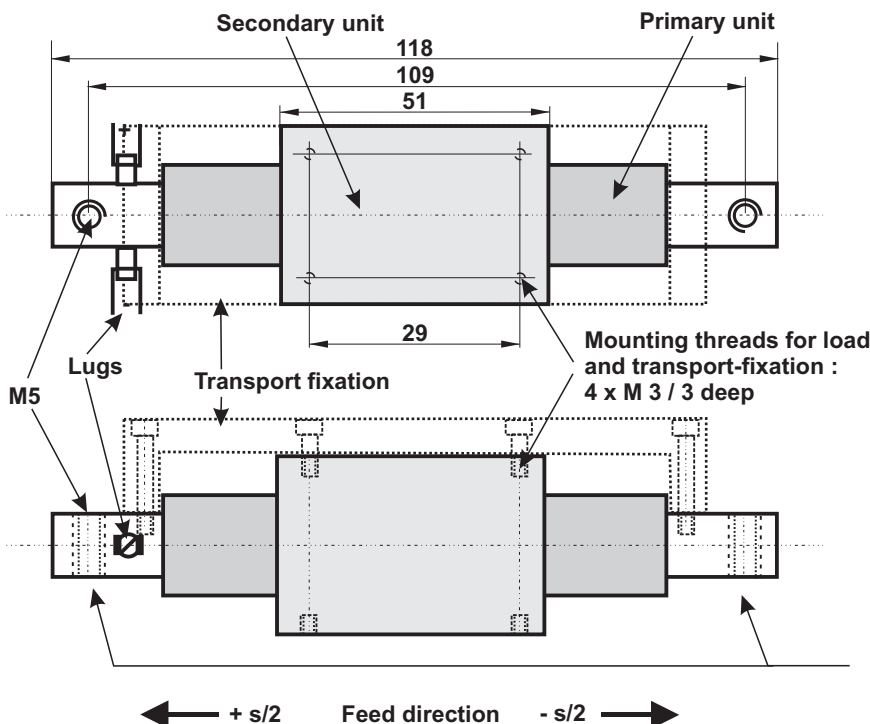
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

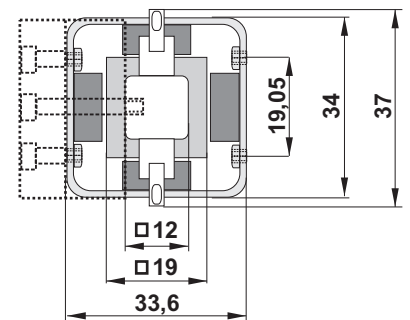
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



Performance-data are tolerated +/-10% .

The rights are reserved to make changes and modifications to technical specifications, designs, sizes, weights etc.. Measurements in mm

BOB DC linear motor (short stroke)

GTL 34 - 11 / 30 - S

U_{max} : 150 V

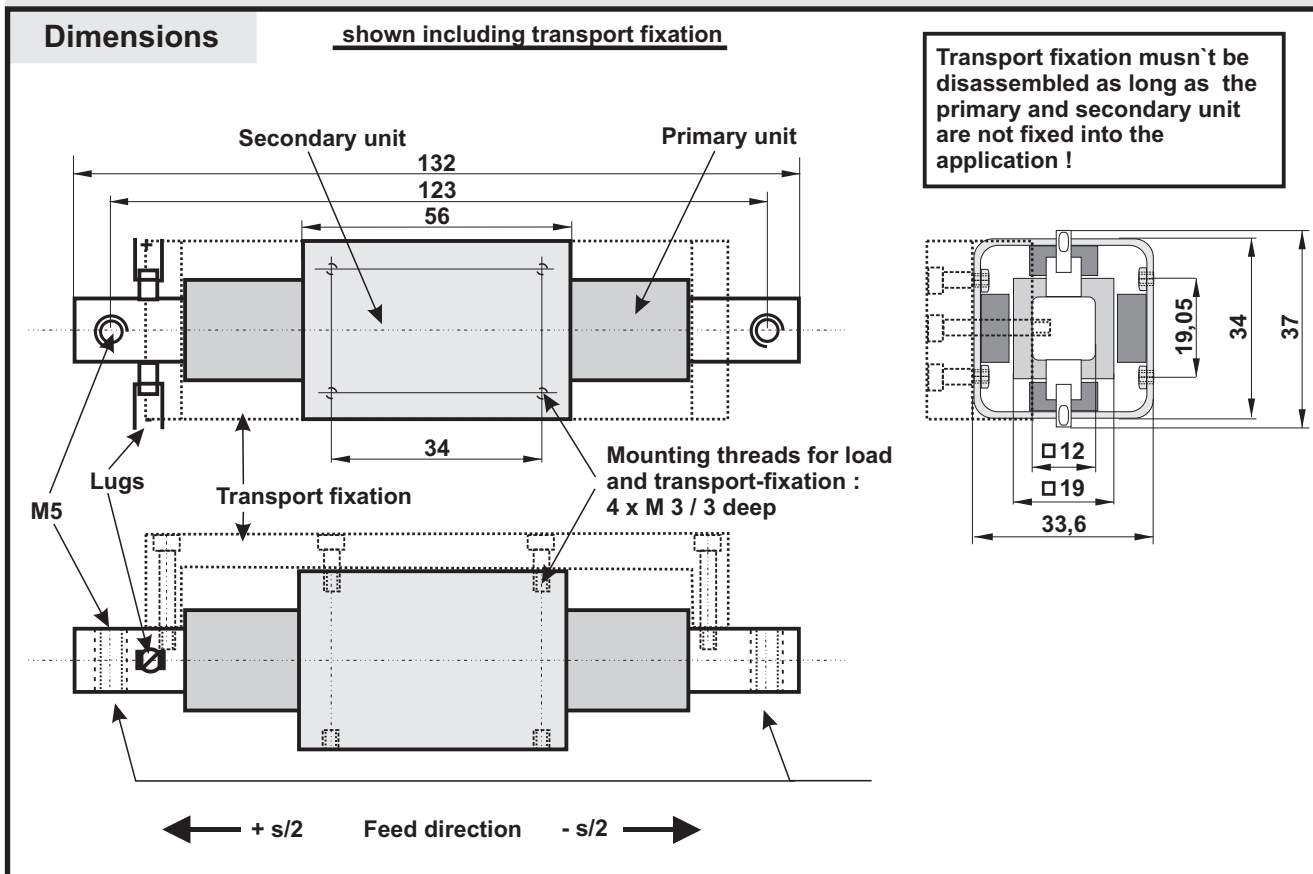
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	8,0	6,3
Maximum force (***)	F _{max}	N	29,9	29,9
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	1,70	1,79
Max. permitted loss	P _{C max}	W	22,3	12,3
Thermal resistance	R _{th}	K/W	4,26	7,72
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	1,96	1,46
Maximum current	I _{max}	A	8,23	8,23
Demagnetising current	I _p	A	>18	>18
Back EMF constant	K _e	Vs/m	4,54	4,54
Force constant (at I _c)	K _t	N/A	4,10	4,31
Force constant (at I _{max})	K _{t max}	N/A		3,63
Time constant electrical	t _e	ms		1,5
DC-resistance (20°C)	R			4,0
Inductance	L	mH		6,0
Stroke	s	mm		30
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		137
Total mass	m _T	g		335

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

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BOB DC linear motor (short stroke)

GTL 34 - 17 / 06 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	14,6	10,5
Maximum force (***)	F _{max}	N	65,0	65,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	3,39	3,57
Max. permitted loss	P _{c max}	W	18,6	8,6
Thermal resistance	R _{th}	K/W	5,12	11,1
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,41	1,63
Maximum current	I _{max}	A	12,7	12,7
Demagnetising current	I _p	A	>21	>21
Back EMF constant	K _e	Vs/m	6,40	6,40
Force constant (at I _c)	K _t	N/A	6,08	6,40
Force constant (at I _{max})	K _{t max}	N/A		5,12
Time constant electrical	t _e	ms		1,09
DC-resistance (20°C)	R			2,2
Inductance	L	mH		2,4
Stroke	s	mm		6
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		137
Total mass	m _T	g		273

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

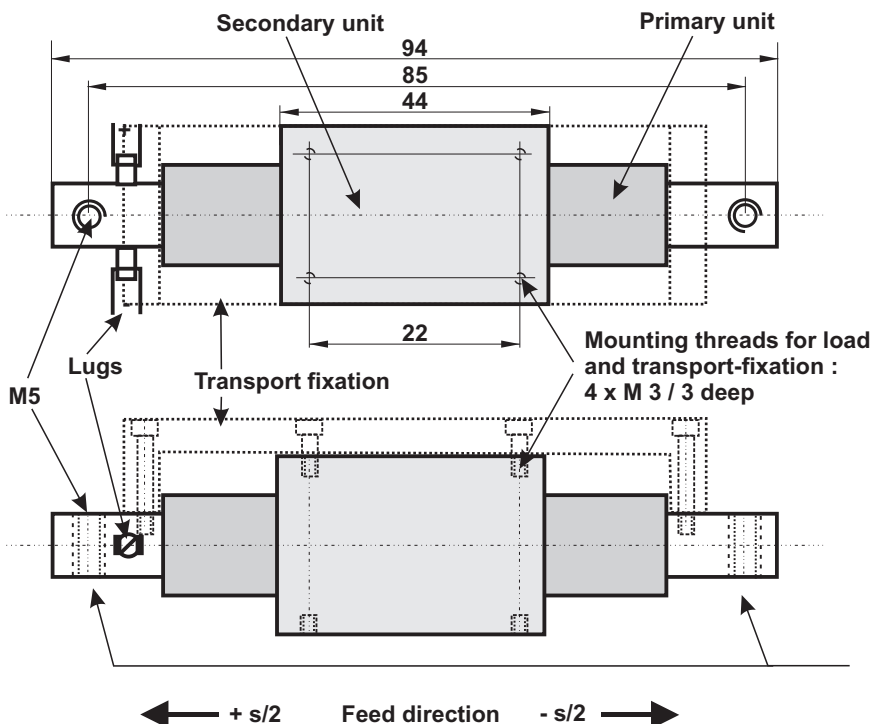
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

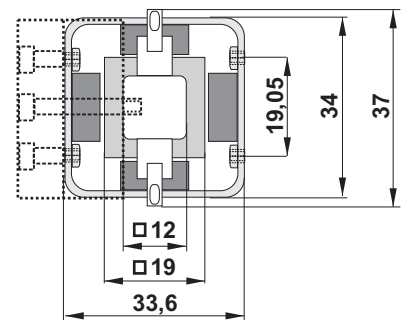
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



Performance-data are tolerated +/-10% .

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BOB DC linear motor (short stroke)

GTL 34 - 17 / 13 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	13,2	9,9
Maximum force (***)	F _{max}	N	58	58,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,96	3,11
Max. permitted loss	P _{c max}	W	20,0	10,0
Thermal resistance	R _{th}	K/W	4,75	9,48
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,18	1,54
Maximum current	I _{max}	A	11,3	11,3
Demagnetising current	I _p	A	>21	>21
Back EMF constant	K _e	Vs/m	6,40	6,40
Force constant (at I _c)	K _t	N/A	6,08	6,40
Force constant (at I _{max})	K _{t max}	N/A		5,12
Time constant electrical	t _e	ms		1,24
DC-resistance (20°C)	R			2,9
Inductance	L	mH		3,6
Stroke	s	mm		13
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		149
Total mass	m _T	g		310

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

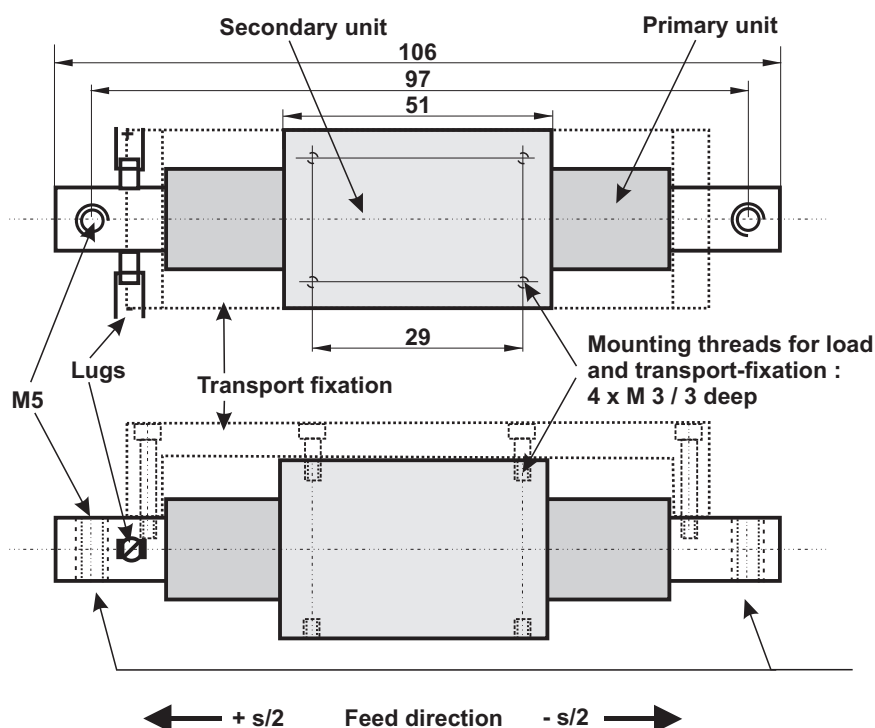
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

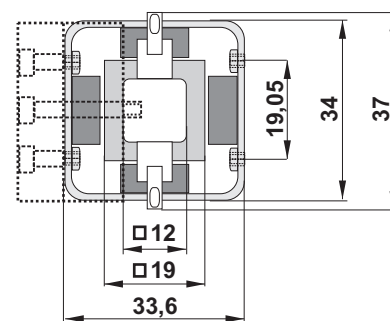
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



BOB DC linear motor (short stroke)

GTL 34 - 17 / 18 - S

U_{max} : 150 V

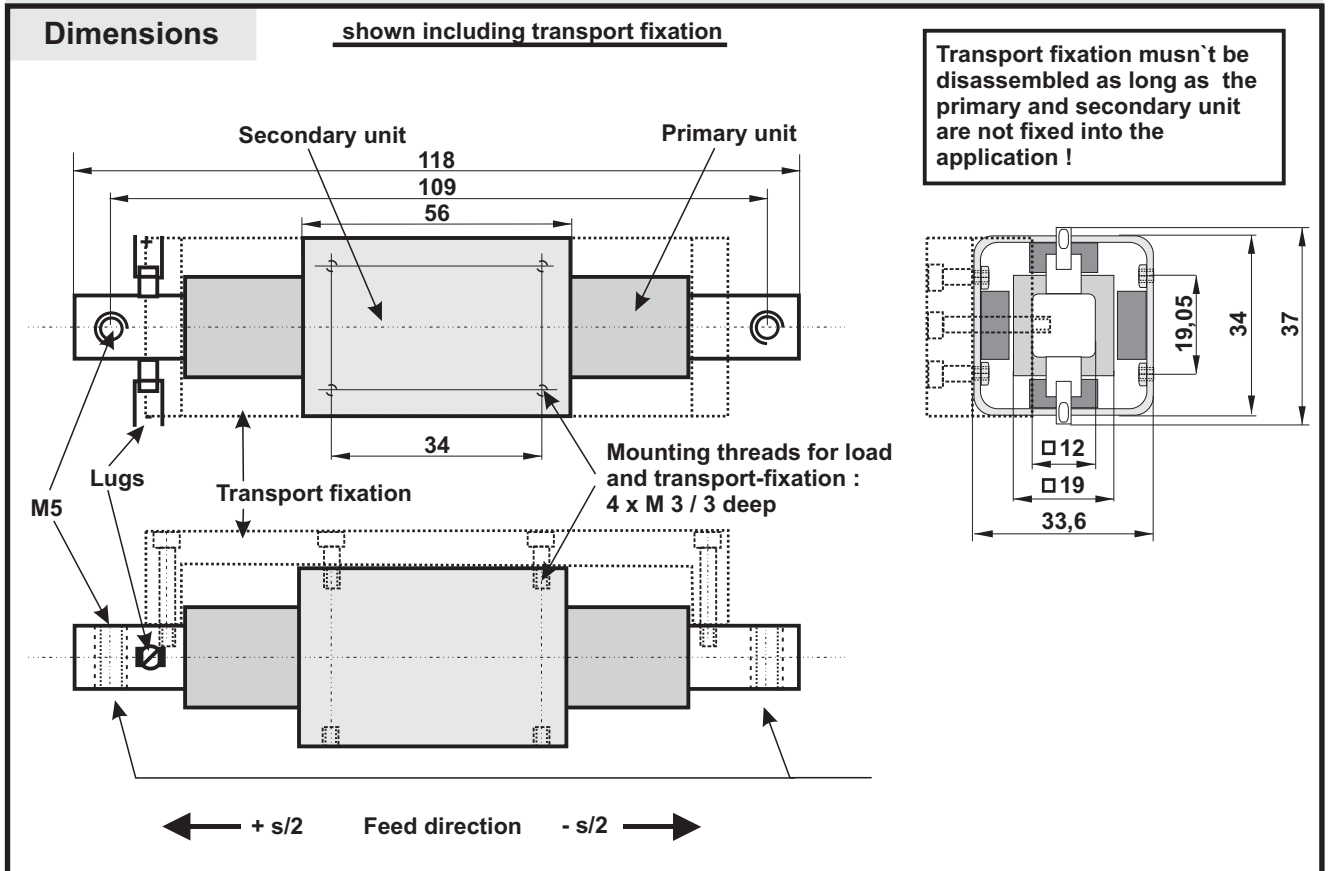
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	12,6	9,6
Maximum force (***)	F _{max}	N	51,0	51,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,74	2,88
Max. permitted loss	P _{C max}	W	21,1	11,1
Thermal resistance	R _{th}	K/W	4,51	8,59
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,07	1,50
Maximum current	I _{max}	A	10,0	10,0
Demagnetising current	I _p	A	>21	>21
Back EMF constant	K _e	Vs/m	6,40	6,40
Force constant (at I _c)	K _t	N/A	6,08	6,40
Force constant (at I _{max})	K _{t max}	N/A		5,12
Time constant electrical	t _e	ms		1,38
DC-resistance (20°C)	R			3,4
Inductance	L	mH		4,7
Stroke	s	mm		18
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		159
Total mass	m _T	g		341

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

The rights are reserved to make changes and modifications to technical specifications, designs, sizes, weights etc.. Measurements in mm

BOB DC linear motor (short stroke)

GTL 34 - 17 / 25 - S

U_{max} : 150 V

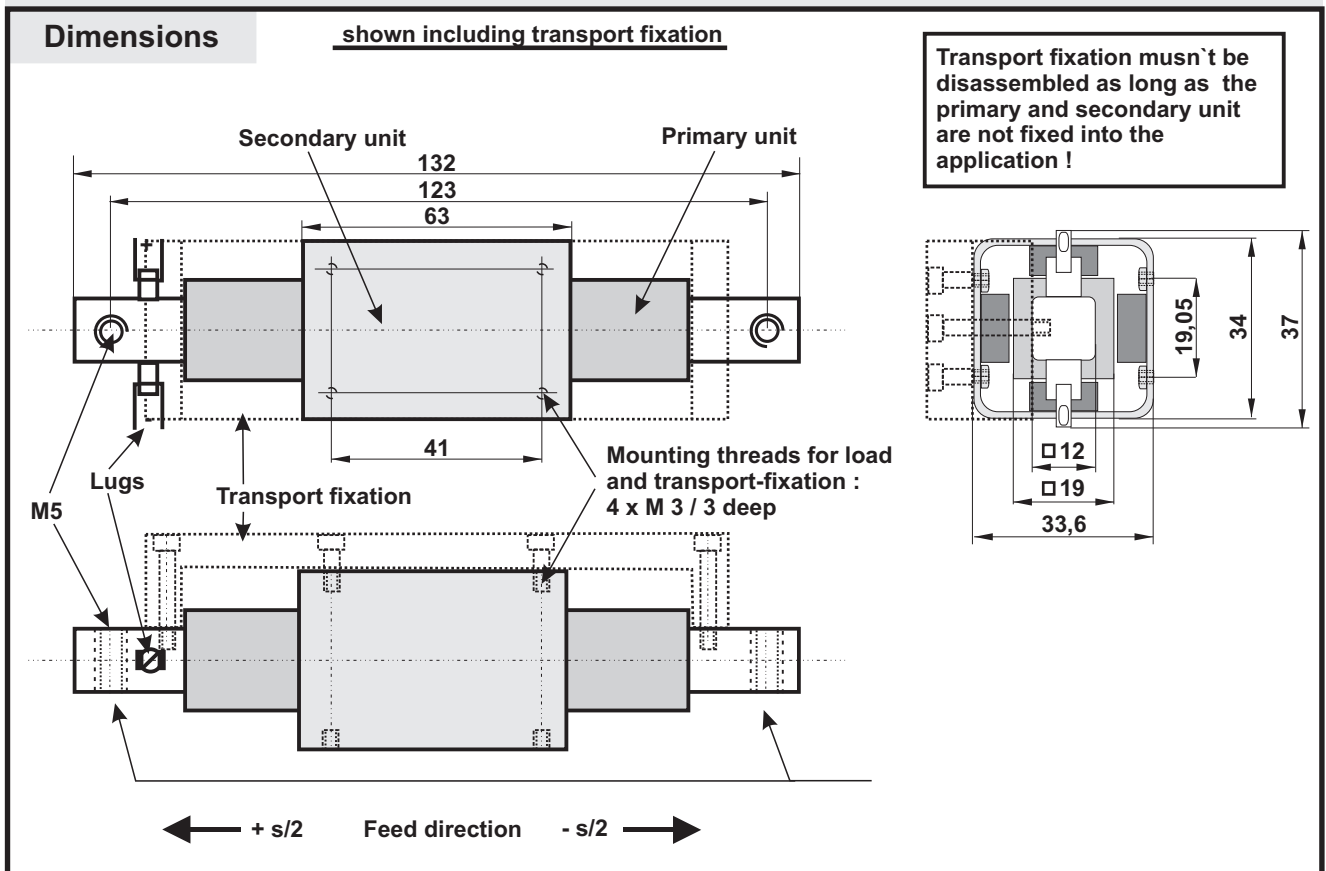
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	11,5	9,0
Maximum force (***)	F _{max}	N	42,0	42,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,42	2,55
Max. permitted loss	P _{C max}	W	22,5	12,5
Thermal resistance	R _{th}	K/W	4,22	7,59
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	1,96	1,46
Maximum current	I _{max}	A	8,3	8,3
Demagnetising current	I _p	A	>21	>21
Back EMF constant	K _e	Vs/m	6,30	6,30
Force constant (at I _c)	K _t	N/A	5,78	6,17
Force constant (at I _{max})	K _{t max}	N/A		5,04
Time constant electrical	t _e	ms		1,5
DC-resistance (20°C)	R			4,1
Inductance	L	mH		6,1
Stroke	s	mm		25
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		171
Total mass	m _T	g		378

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

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BOB DC linear motor (short stroke)

GTL 34 - 17 / 32 - S

U_{max} : 150 V

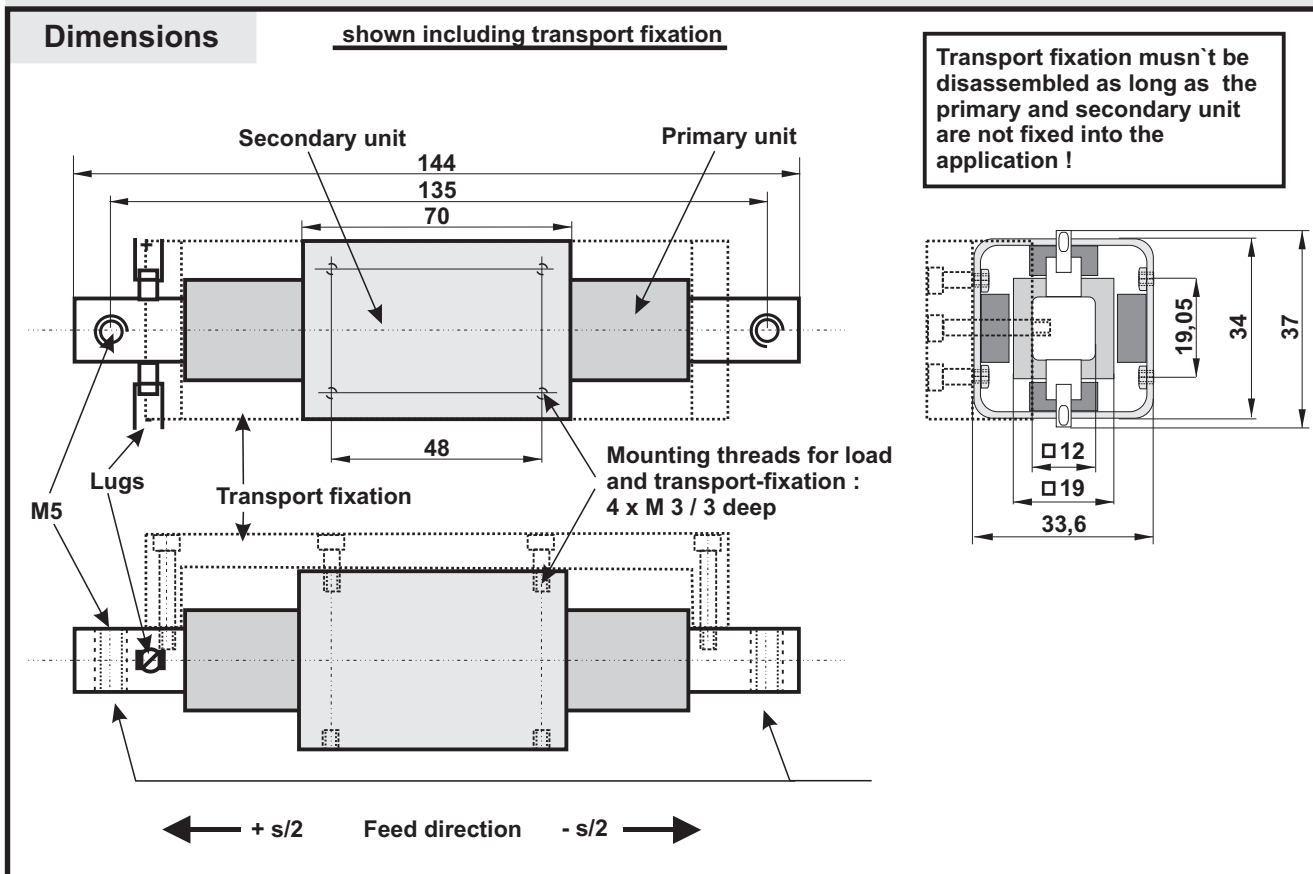
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	10,3	8,25
Maximum force (***)	F _{max}	N	33,0	33,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,10	2,21
Max. permitted loss	P _{C max}	W	24,0	24,0
Thermal resistance	R _{th}	K/W	3,96	6,80
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	1,87	1,42
Maximum current	I _{max}	A	6,8	6,8
Demagnetising current	I _p	A	>21	>21
Back EMF constant	K _e	Vs/m	6,10	6,10
Force constant (at I _c)	K _t	N/A	5,51	5,80
Force constant (at I _{max})	K _{t max}	N/A		4,88
Time constant electrical	t _e	ms		1,6
DC-resistance (20°C)	R			4,8
Inductance	L	mH		7,7
Stroke	s	mm		32
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		183
Total mass	m _T	g		415

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

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BOB DC linear motor (short stroke)

GTL 34 - 23 / 06 - S

U_{max} : 150 V

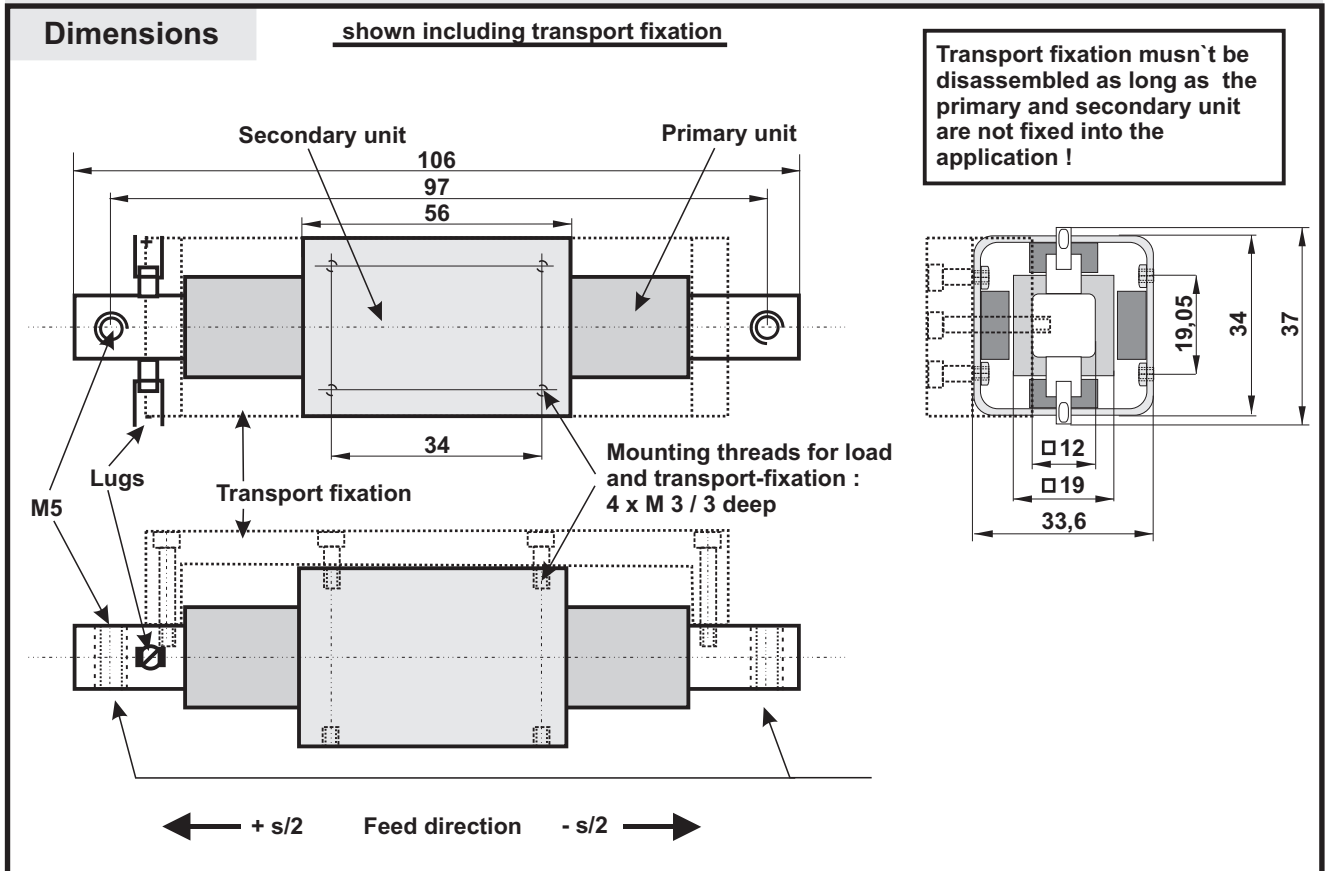
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	16,3	12,1
Maximum force (***)	F _{max}	N	85,0	85,0
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	3,67	3,86
Max. permitted loss	P _{c max}	W	19,8	9,8
Thermal resistance	R _{th}	K/W	4,80	9,69
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,21	1,55
Maximum current	I _{max}	A	13,6	13,6
Demagnetising current	I _p	A	>25	>25
Back EMF constant	K _e	Vs/m	7,79	7,79
Force constant (at I _c)	K _t	N/A	7,40	7,79
Force constant (at I _{max})	K _{t max}	N/A		6,23
Time constant electrical	t _e	ms		1,24
DC-resistance (20°C)	R			2,82
Inductance	L	mH		3,5
Stroke	s	mm		6
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		178
Total mass	m _T	g		337

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



Performance-data are tolerated +/-10% .

The rights are reserved to make changes and modifications to technical specifications, designs, sizes, weights etc.. Measurements in mm

BOB DC linear motor (short stroke)

GTL 34 - 23 / 13 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	15,1	11,6
Maximum force (***)	F _{max}	N	75,8	75,8
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	3,28	3,46
Max. permitted loss	P _{C max}	W	21,3	11,3
Thermal resistance	R _{th}	K/W	4,47	8,43
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	2,04	1,49
Maximum current	I _{max}	A	12,2	12,2
Demagnetising current	I _p	A	>25	>25
Back EMF constant	K _e	Vs/m	7,79	7,79
Force constant (at I _c)	K _t	N/A	7,40	7,79
Force constant (at I _{max})	K _{t max}	N/A		6,23
Time constant electrical	t _e	ms		1,56
DC-resistance (20°C)	R			3,52
Inductance	L	mH		5,5
Stroke	s	mm		13
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		194
Total mass	m _T	g		382

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

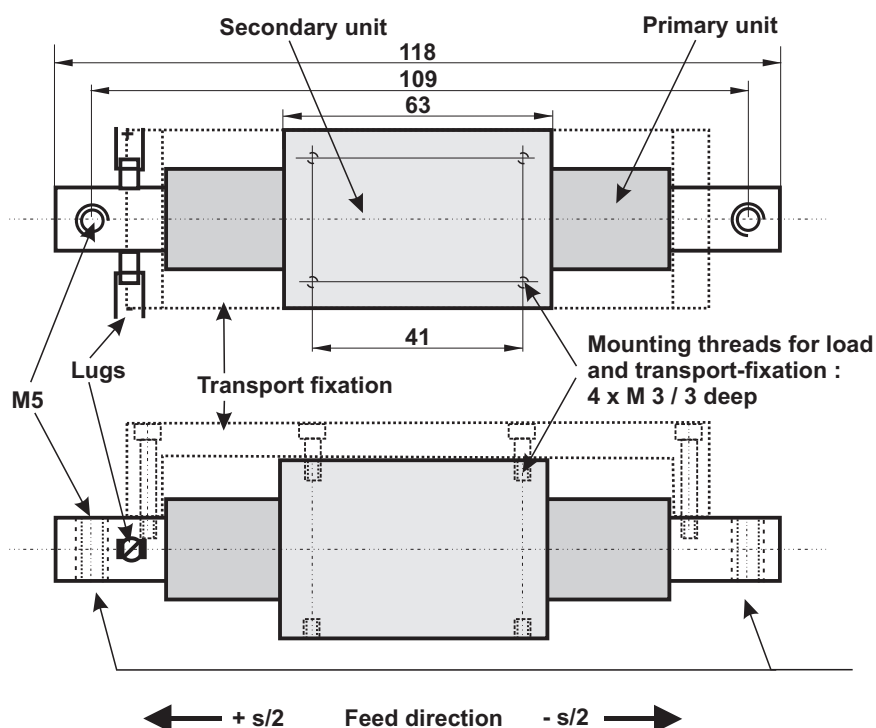
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

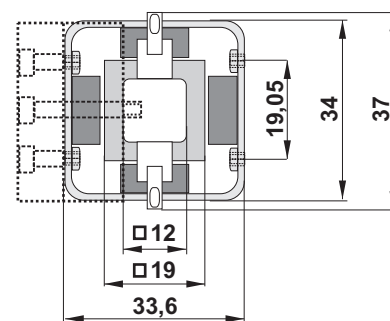
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



BOB DC linear motor (short stroke)

GTL 34 - 23 / 20 - S

U_{max} : 150 V

	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	14,4	11,3
Maximum force (***)	F _{max}	N	66,7	66,7
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	3,02	3,18
Max. permitted loss	P _{C max}	W	22,7	12,7
Thermal resistance	R _{th}	K/W	4,18	7,47
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	1,94	1,45
Maximum current	I _{max}	A	10,7	10,7
Demagnetising current	I _p	A	>25	>25
Back EMF constant	K _e	Vs/m	7,79	7,79
Force constant (at I _c)	K _t	N/A	7,40	7,79
Force constant (at I _{max})	K _{t max}	N/A		6,23
Time constant electrical	t _e	ms		1,51
DC-resistance (20°C)	R			4,17
Inductance	L	mH		6,30
Stroke	s	mm		20
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		207
Total mass	m _T	g		420

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

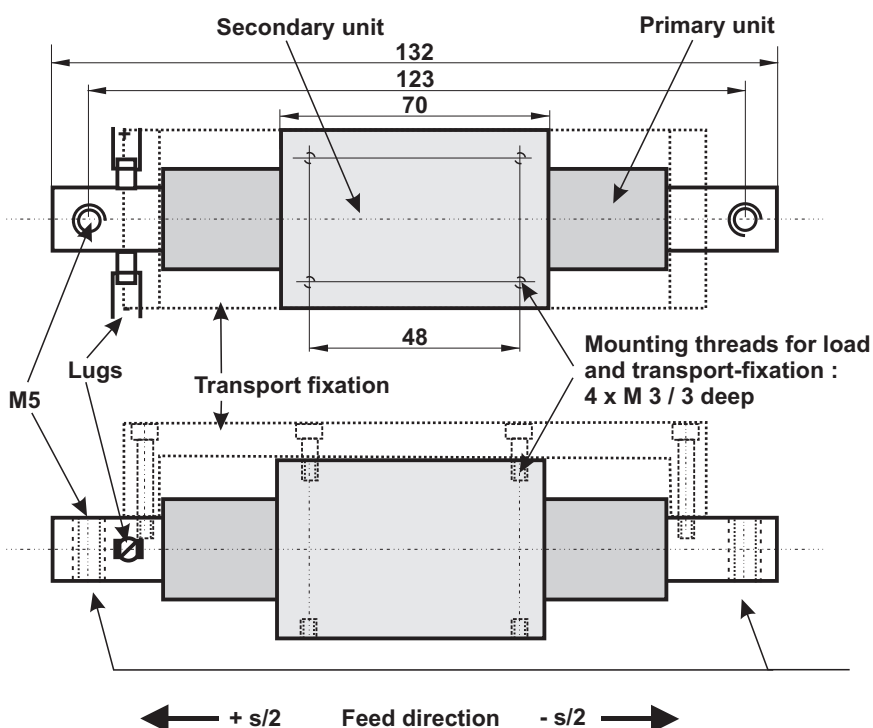
(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

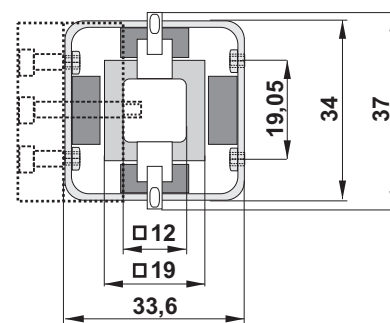
The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.

Dimensions

shown including transport fixation



Transport fixation musn't be disassembled as long as the primary and secondary unit are not fixed into the application !



BOB DC linear motor (short stroke)

GTL 34 - 23 / 25 - S

U_{max} : 150 V

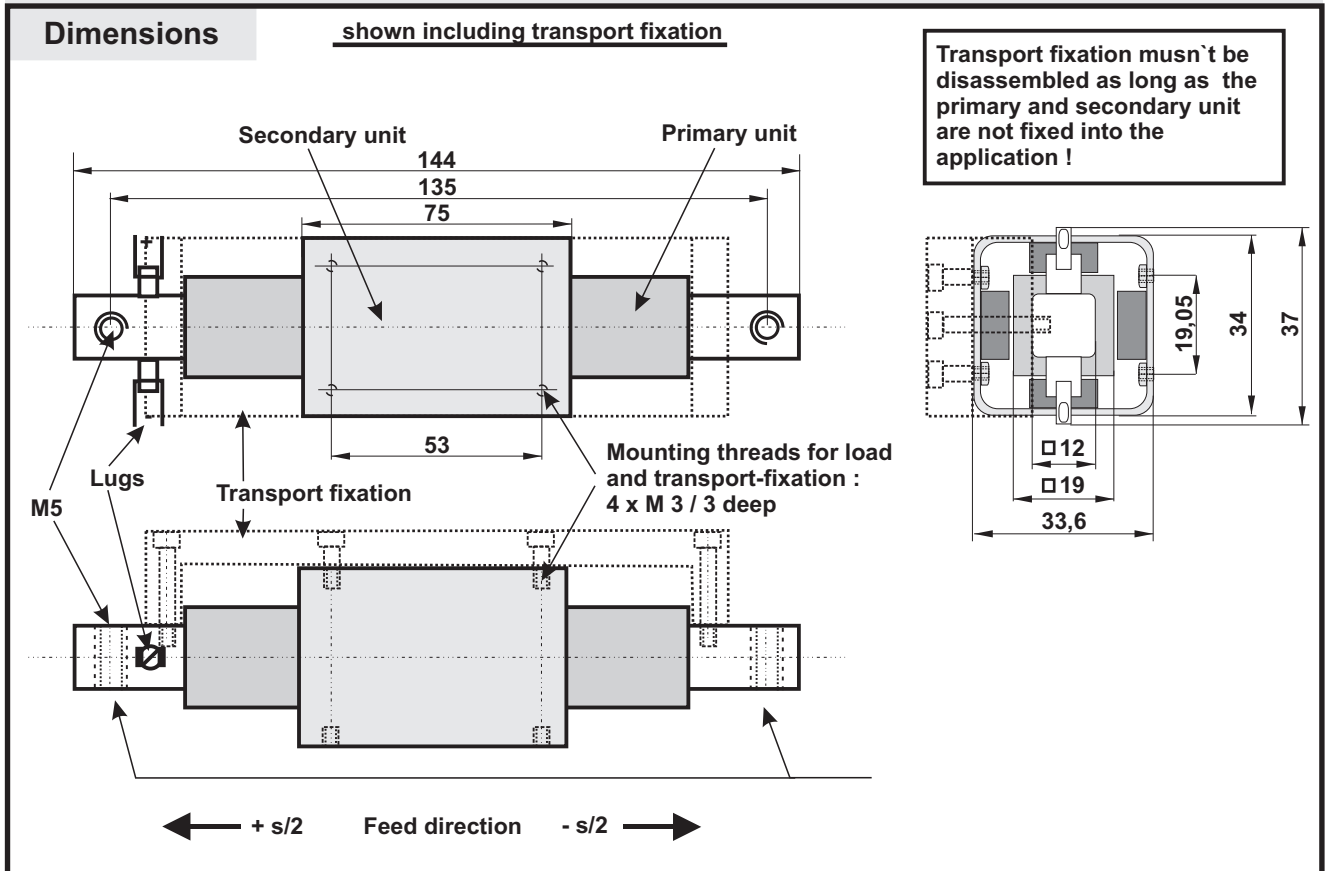
	Symbol	Unit	Motor fixed on mounting plane with R _{th} < 3 K/W (*)	Motor fixation without heat transfer to application (**)
Continuous force	F _c	N	13,4	10,75
Maximum force (***)	F _{max}	N	54,9	54,9
Motor constant (at I _c and 130 °C C _u)	K _m	N/W ²	2,75	2,90
Max. permitted loss	P _{C max}	W	23,8	13,8
Thermal resistance	R _{th}	K/W	4,00	6,90
Time constant thermal	t _{th}	min	9	22
Continuous current	I _c	A	1,88	1,43
Maximum current	I _{max}	A	8,9	8,9
Demagnetising current	I _p	A	>25	>25
Back EMF constant	K _e	Vs/m	7,67	7,67
Force constant (at I _c)	K _t	N/A	7,14	7,52
Force constant (at I _{max})	K _{t max}	N/A		6,14
Time constant electrical	τ _e	ms		1,61
DC-resistance (20°C)	R			4,66
Inductance	L	mH		7,50
Stroke	s	mm		25
Max. permitted eccentricity of air-gap	ag	mm		0,2
Moving mass (secondary unit)	m _s	g		222
Total mass	m _T	g		464

(*) Data are valid for fixation of the primary unit to a mounting plate with a thermal resistance R_{th} < 3 K/W.

(**) Data are valid for insulated fixation of the primary unit to a mounting plate.

(***) When motor is operating with F_c < F < F_{max} the maximum permitted operation time has to be calculated depending on the cycle time and the maximum permitted loss.

The shown data are valid for a winding temperature up to 130°C and at an ambient temperature of 35°C. Motors can be supplied with different electrical data as requested by customers.



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