

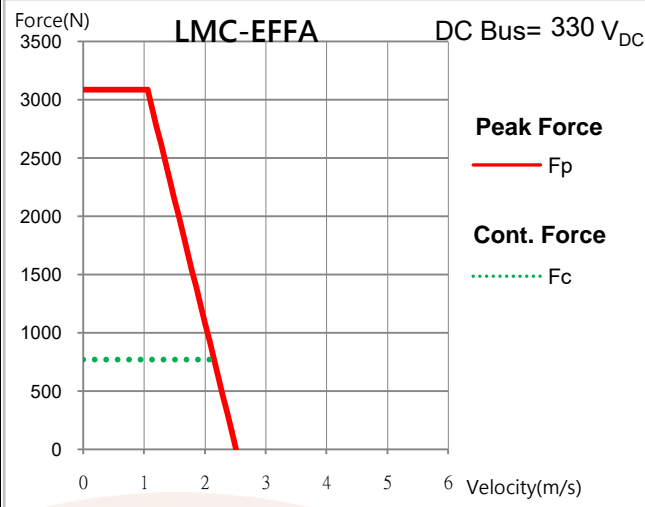
# HIWIN MIKROSYSTEM CORP.

## LMC-EFFA

### Electrical specifications

	Symbol	Unit	Free air convection
Continuous force	$F_c$	N	771
Continuous current	$I_c$	Arms	5.7
Peak force (for 1sec.)	$F_p$	N	3086
Peak current (for 1sec.)	$I_p$	Arms	22.6
Force constant	$K_f$	N/Arms	136.5
Electrical time constant	$K_e$	ms	1.5
Resistance (line to line at 25°C)	$R_{25}$	$\Omega$	5.8
Inductance (line to line)	L	mH	8.7
Pole pair pitch	2 $\tau$	mm	60
Back emf constant (line to line)	$K_v$	Vrms/m/s	78.8
Motor constant (at 25°C)	$K_m$	N/ $\sqrt{W}$	46.3
Thermal resistance	$R_{th}$	$^{\circ}C/W$	0.26
Thermal sensor	-	-	3 PTC 120°C in series
Max. DC BUS	-	V	330

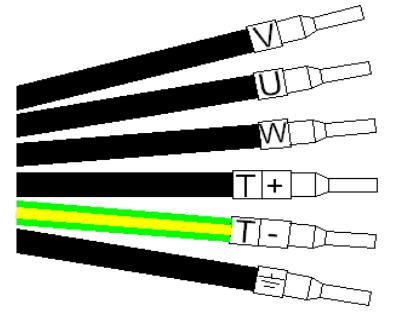
### F-V curve



### Connector /Wiring type

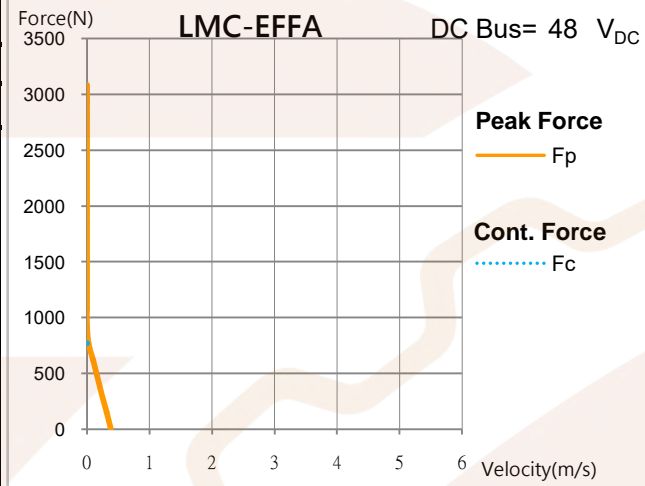
Cabling : IGUS CF10.07.05  
Diameter : 7.5mm  
PTC Sensor: 3 PTC 120°C in series

WIRING DIAGRAM	
Signal	Cable
V	1
U	2
W	3
GND	Shielding
Thermal+	4
Thermal-	YellowGreen



### Mechanical specifications

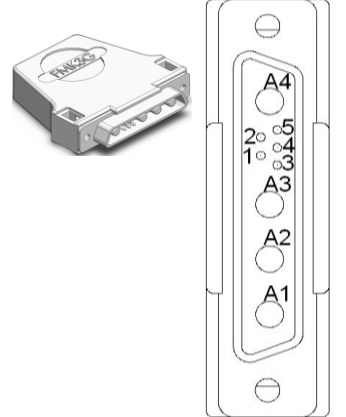
	Symbol	Unit	Free air convection
Mass of forcer	$M_f$	kg	6.7
Unit mass of stator	$M_s$	kg/m	24.7
Length of forcer / Dimension n	$L_f$	mm	601/19
Height of forcer	h	mm	104.8
Height of stator	$H_s$	mm	100
Width of stator	$W_s$	mm	50
Length of stator / Dimension N	$L_s$	mm	120/2, 180/3, 300/5
Total height	H	mm	122



### Connector Type

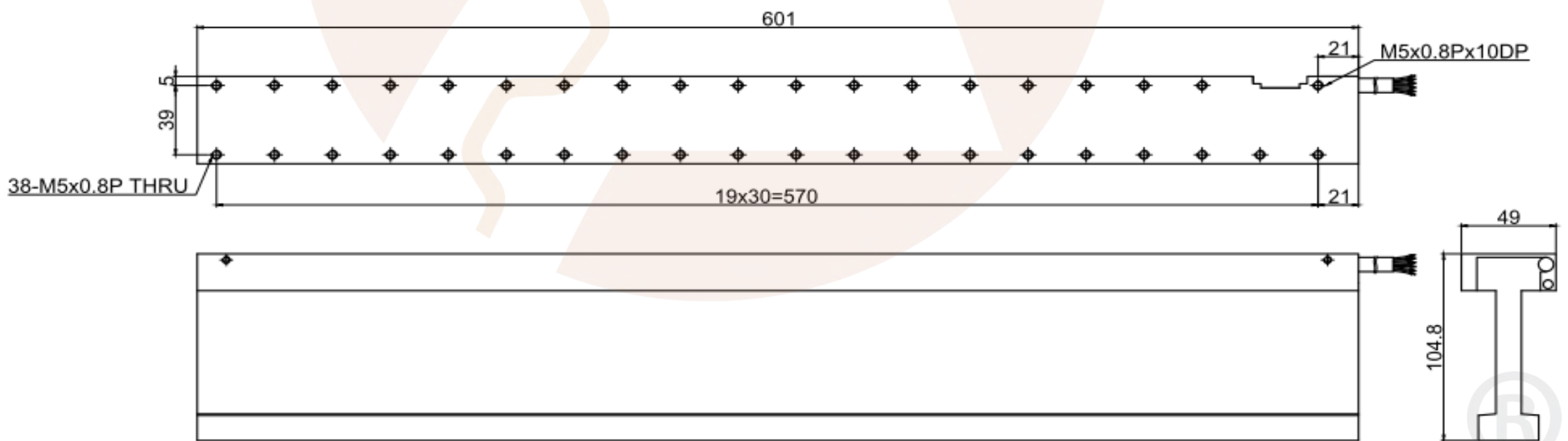
Cabling : IGUS CF10.07.05  
Diameter : 7.5mm  
PTC Sensor: 3 PTC 120°C in series

Wiring Diagram		
Connector	Signal	CABLE
A1	V	1
A2	U	2
A3	W	3
A4	GND	Shielding
1	Thermal+	4
3	Thermal-	YellowGreen
Case	GND	Shielding

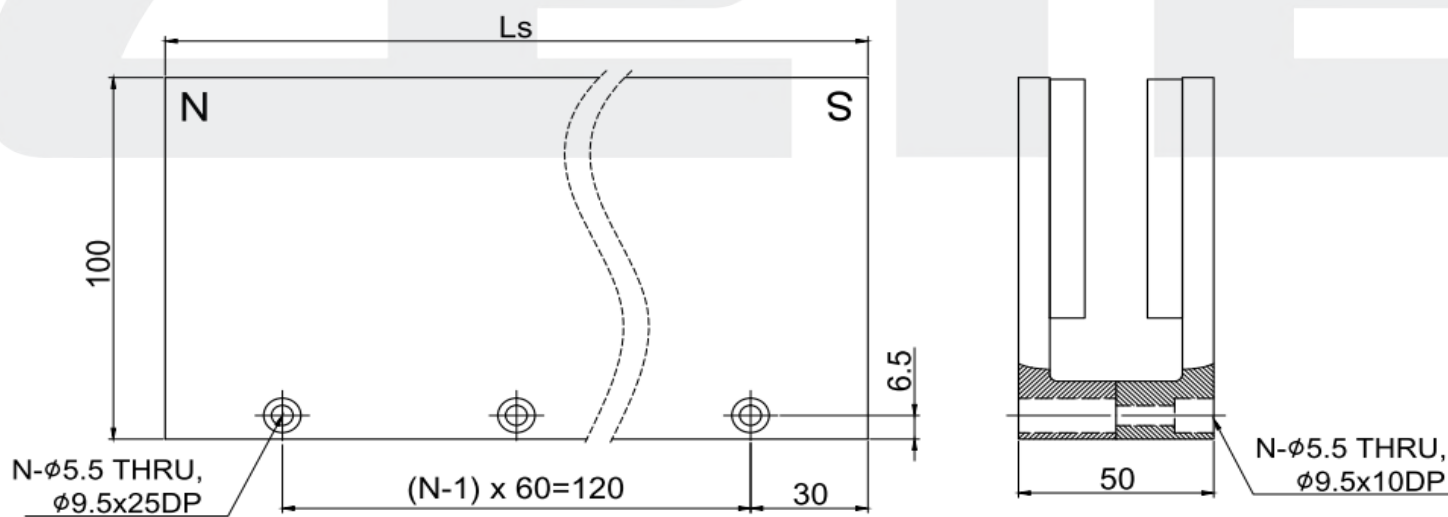


### Dimensions for linear motor LMC-EFFA forcer

Moving Direction(+) →

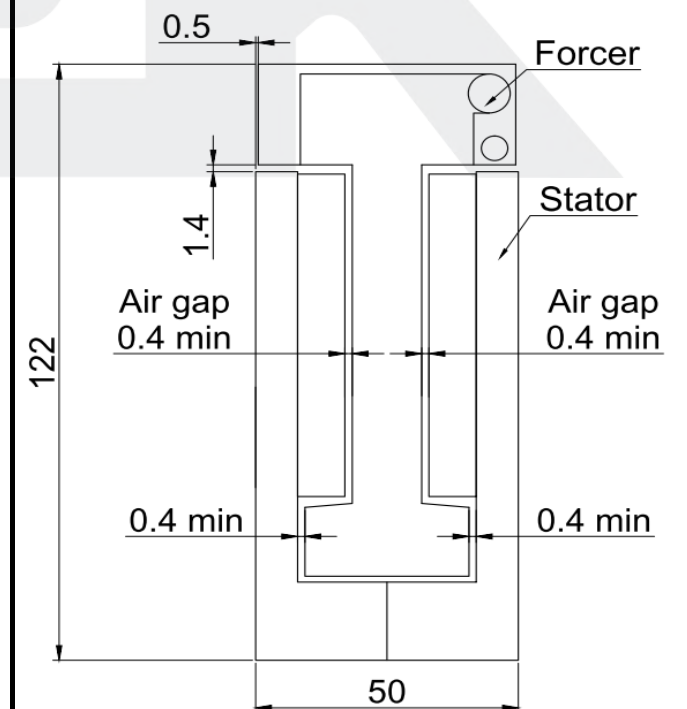


### Dimensions for linear motor LMC-EFF stator



TYPE	LMC-EFFS1	LMC-EFFSB	LMC-EFFS2
Ls/N	120/2	180/3	300/5

### Installing linear motors LMC-EFF series



Except dimensions, all the specifications in the table are in  $\pm 10\%$  of tolerance.

Version: 1.01

Date: 2015/06/12