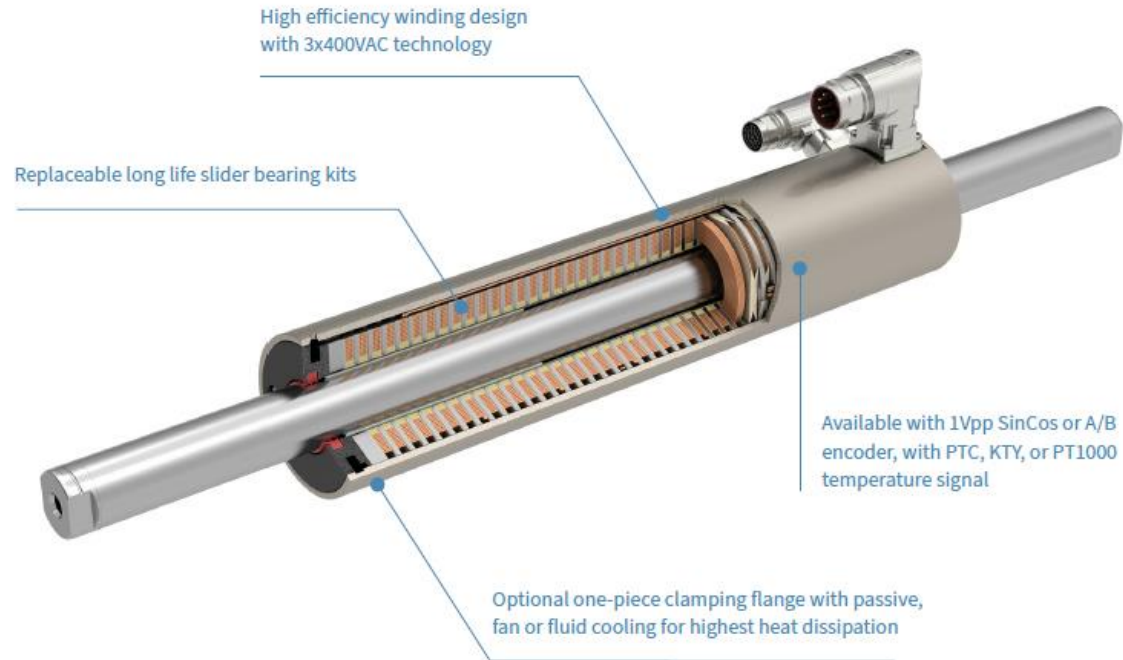


LINMOT compatibility with the LIU BWS electronics



- Les moteurs LinMot les plus puissants et les plus dynamiques
- Technologie moteur 230VAC / 3x400VAC

- Contrôlés par des variateurs standard d'autres marques
- Longue durée de vie

- Configuration facile
- Certifié CE/RoHS/UL



PS10-70x80U-BL-QJ-D01

Stator 3x400VAC, Sin/Cos encoder 1Vpp, KTY

Article no.: 0150-2282

Technical Data

Max. Stroke	1770 mm
Max. Force	561 N
Continuous Force	67/100/180 N
Max. Velocity	6.1 m/s
Position Repeatability	±0.05 mm

[Motor Cable](#)

Supported Drives: 3rd Party

Mechanical Data

Stator Diameter	70 mm
Stator Length	180 mm
Stator Mass	2850 g
Slider Diameter	28 mm
Slider Length	290 - 1990 mm
Slider Mass	1360 - 9350 g

1 Add to cart

Electrical characteristics

- 11 A max not an issue
(10% max range of the sensor)
to see how low current ctrl will behave
- Back EMF constant 58.9V
~ok at 1m/s
nok at 3m/s (180V lost)
- Magnetic period:
40mm
at 1m/s mean
25 Hz fundamental
=> OK

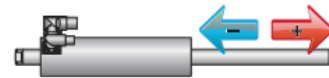
Stroke			
Max. Stroke (ES)	mm	(in)	1770 (69.7)
Force			
Max. Force ¹ @ 1x230VAC	N	(lbf)	561 (126)
Max. Force ² @ 3x400VAC	N	(lbf)	561 (126)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	67 / 100 / 180 (15 / 23 / 41)
Max. Border Force relative	%		100
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	51 (11.5)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	72.1 (16.2)
Velocity			
Max. Velocity @ 1x230VAC	m/s	(in/s)	3.5 (139.9)
Max. Velocity @ 3x400VAC	m/s	(in/s)	6.1 (249.9)
Position Detection			
Position Resolution	mm	(in)	0.005 (0.0002)
Repeatability	mm	(in)	±0.05 (±0.002)
Position Resolution with ES	mm	(in)	0.001 (0.00004)
Repeatability with ES	mm	(in)	±0.01 (±0.0004)
Linearity with ES	mm	(in)	±0.01 (±0.0004)
Electrical Data			
Max. Current ¹ @ 1x230VAC	A _{pk} / A _{rms}		10.9 / 7.7
Max. Current ² @ 3x400VAC	A _{pk} / A _{rms}		10.9 / 7.7
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		1.3 / 2 / 3.5
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		0.93 / 1.4 / 2.5
Back EMF Constant	V _{pk} / (m/s)	(V _{pk} / (in/s))	58.9 (1.5)
Terminal Resistance 25 °C / 120 °C	Ohm		13 / 18
Terminal Inductivity	mH		25
Magnetic Period	mm	(in)	40 (1.57)

SIN/COS-POS-Feedback

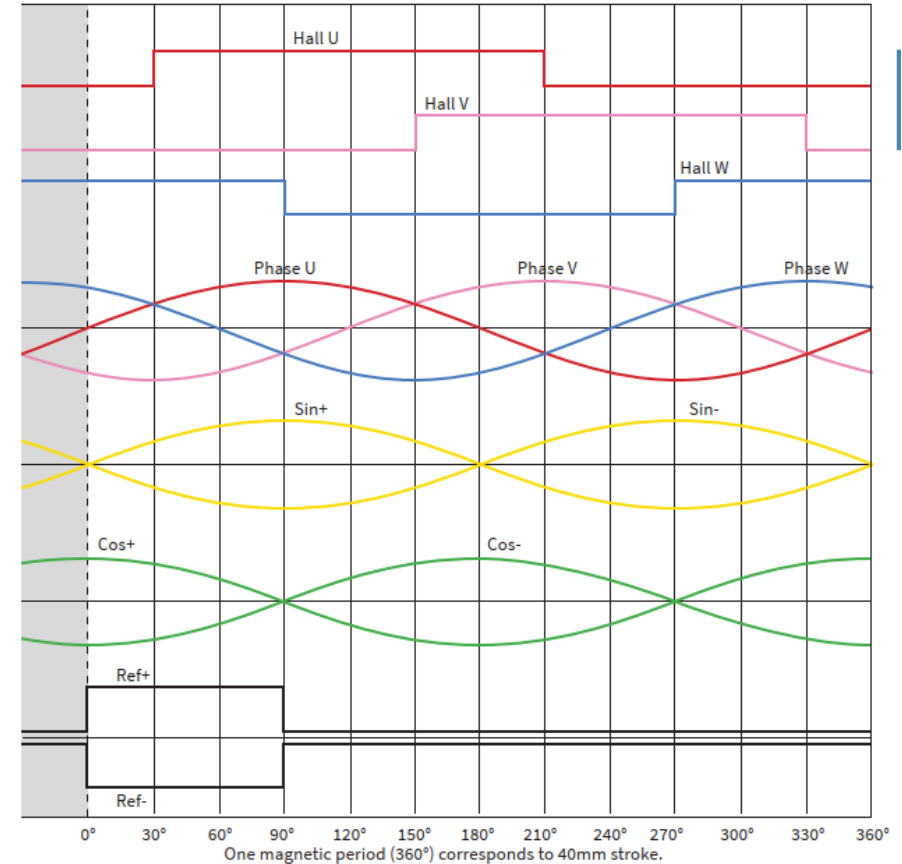
- This feedback integrates electronics on the motor.
- Therefore, it is not compatible with radioactive environment.
- We need an equivalent to a rotary resolver but for linear stroke
- Does the company is willing to work with us for a radiation compatible version?

SIN/COS-POSITIONS-FEEDBACK (D0X-INTERFACE FOR 3RD PARTY DRIVES)

The linear motors of the P10-70 series have a contactless, integrated position feedback, which means that an external encoder is not required. The integrated position sensor technology of the motors with D0x interface provides a differential standard 1Vpp sin/cos signal with a 40mm period. The phase position of the sensor signals and the phase currents (with constant force in positive direction) is shown on the right side of the diagram. (The Sin encoder signal is in phase with the current characteristic of phase U).



The arrows show the direction of movement of the slider. The stator remains in its position.



Sin / Cos		P10-70x...-D0x
Output signal period	mm	40
Signal amplitude ¹	V _{pp}	1
Termination ¹	Ohm	120
Supply voltage	V _{dc}	3...13 (w or w/o sense)
Power consumption	mW	< 1000

Draft comparison with other products

Manufacturer	Part Number	MOVER							STATOR		estimated stroke
		length (m)	mass (kg)	Peak force (N)	DC-BUS Voltage (Udc)	BackEMF Vrms/(m/s)	EMF@3m/s	force Cst (N/Arms)	P.N	Stator length	
ETEL	ILF+03-030	0.072	0.0995	98.9	600	17.9 / 8.17	53.7	29.5 / 13.4	IWF+030-0256	0.256	0.184
	ILF+06-030	0.136	0.194	198	600	17.9	53.7	29.5	IWF+030-0256	0.256	0.12
TECNOTION	UM3	0.078	0.084	100		30 / 16	90	36.3 / 19.9	UM150	0.15	0.072
TECNOTION	UL3	0.106	0.25	240		55.5 / 22.5	166.5	68 / 27.5	UL210	0.21	0.104
LINMOT	PS10-70x80-BL-QJ-D01	290	1.36	561	1x230VAC	58.9	176.7	72.1		180	110
IDAM	ULIM4-3P	0.072									-0.072
H2W Technologies											
OMRON											
Kollmorgen											
Parker											