

ENGINEERING DOCUMENTATION

Ball Screw Linear Module Engineering Configuration

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-LA-S04-P04	DRAFT-08 / 29 Aug 2026	Engineering Integration Reference

Integration Overview

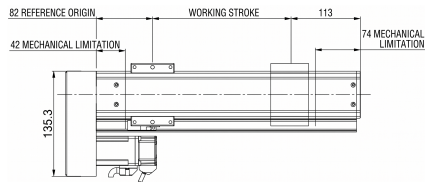
Exact ball-screw linear-module configuration for guided linear motion in automation equipment. This guide supports dimensional layout, mounting, load-path , motor and coupling integration, cable and sensor clearance, maintenance and commissioning for ES-LA-S04-P04.

Key Integration Facts

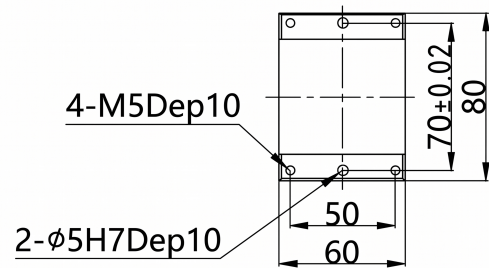
INTEGRATION ITEM	VALUE
Working Stroke	Configuration-dependent (69 records)
Overall Length	
Module Mass	
Mounting Hole Count	
Motor Mounting Style	
Configured Motor Power	400 W

Product Structure & Views

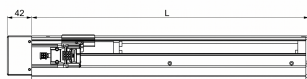
These views present the selected product structure, mounting interfaces and relevant integration geometry for this configuration.



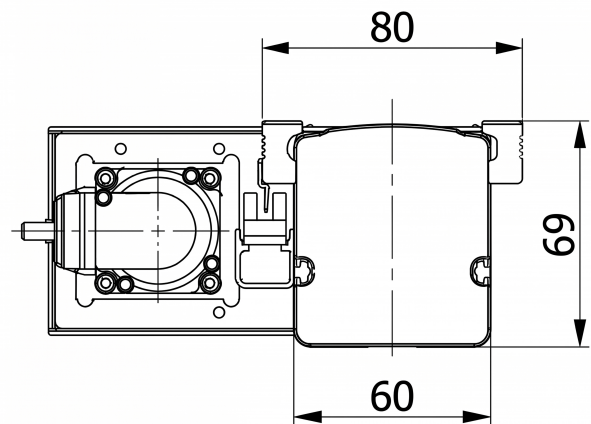
Mechanical View 1



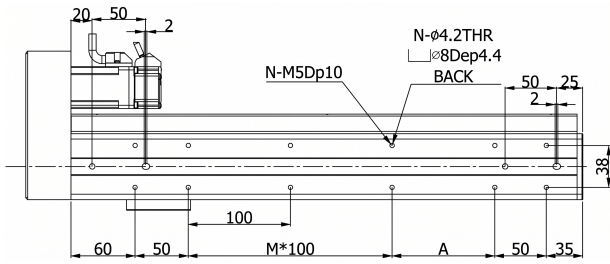
Standard Sliding rack



Mechanical View 3



Mechanical View 4



Mechanical View 5

VIEW	FIELD	VALUE
Mechanical View 1	Reference Origin Position	82 mm from reference origin
	Working Stroke	Working stroke range
	Working Stroke Length	113 mm
	Left Mechanical Limitation Position	42 mm mechanical limit
	Right Mechanical Limitation Position	74 mm mechanical limit
	Overall Height	135.3 mm
Mechanical View 2	Vertical height with tolerance	70±0.02
	Overall height	80
	M5 threaded hole specification	4-M5 Depth 10
	Mounting hole spacing	50
	Dowel pin hole specification	2-ØH7 Depth 10
	Overall width	60
Mechanical View 3	Mounting end width	42 mm
	Overall Length	L (variable, depends on model)
Mechanical View 4	Overall width	80
	Overall height	69
	Bottom width	60

VIEW	FIELD	VALUE
Mechanical View 5	Left protrusion width	20 mm
	Left connector zone length	50 mm
	Connector or shaft offset	2 mm
	Through hole specification	N holes, $\varnothing$ 2 mm through
	Counterbore hole specification	$\varnothing$ mm, depth 4.4 mm
	Threaded hole specification	N holes, M5 threaded, depth 10 mm
	Back side designation	Back side
	Right main body length	50 mm
	Right protrusion width	25 mm
	Right connector offset	2 mm
	Overall height	38 mm
	Bottom mounting hole spacing	100 mm
	Left edge distance	60 mm
	Bottom section segment length	50 mm
	Reference or variable dimension	M × 100 mm (variable)
	Datum A	Datum A
	Right section segment length	50 mm
	Right edge distance	35 mm

Configuration Dimensions

- Each row remains bound to one aggregate source configuration. Compare values by row; do not combine cells from different rows into an assumed module configuration.

Configuration Dimensions

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 01 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	250 mm	488 mm	7.7 kg
Configuration 02 - Stroke: 350 mm; Motor mounting: Left Side Motor	350 mm	578 mm	9.8 kg
Configuration 03 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	650 mm	878 mm	12.8 kg
Configuration 04 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	400 mm	638 mm	9.2 kg
Configuration 05 - Stroke: 250 mm; Motor mounting: Left Side Motor	250 mm	478 mm	8.8 kg
Configuration 06 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1100 mm	1328 mm	17.3 kg
Configuration 07 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	550 mm	778 mm	11.8 kg
Configuration 08 - Stroke: 800 mm; Motor mounting: Left Side Motor	800 mm	1028 mm	14.3 kg
Configuration 09 - Stroke: 650 mm; Motor mounting: Left Side Motor	650 mm	878 mm	12.8 kg
Configuration 10 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	400 mm	628 mm	10.3 kg
Configuration 11 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	300 mm	538 mm	8.2 kg
Configuration 12 - Stroke: 100 mm; Motor mounting: Left Side Motor	100 mm	328 mm	7.3 kg
Configuration 13 - Stroke: 150 mm; Motor mounting: Left Side Motor	150 mm	378 mm	7.8 kg
Configuration 14 - Stroke: 950 mm; Motor mounting: Left Side Motor	950 mm	1178 mm	15.8 kg
Configuration 15 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	900 mm	1128 mm	15.3 kg
Configuration 16 - Stroke: 750 mm; Motor mounting: Left Side Motor	750 mm	978 mm	13.8 kg
Configuration 17 - Stroke: 300 mm; Motor mounting: Left Side Motor	300 mm	528 mm	9.3 kg
Configuration 18 - Stroke: 550 mm; Motor mounting: Left Side Motor	550 mm	778 mm	11.8 kg
Configuration 19 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	800 mm	1028 mm	14.3 kg
Configuration 20 - Stroke: 700 mm; Motor mounting: Left Side Motor	700 mm	928 mm	13.3 kg
Configuration 21 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	700 mm	938 mm	12.2 kg
Configuration 22 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	900 mm	1138 mm	14.2 kg
Configuration 23 - Stroke: 1000 mm; Motor mounting: Left Side Motor	1000 mm	1228 mm	16.3 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 24 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	338 mm	6.2 kg
Configuration 25 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	850 mm	1088 mm	13.7 kg
Configuration 26 - Stroke: 1200 mm; Motor mounting: Left Side Motor	1200 mm	1428 mm	18.3 kg
Configuration 27 - Stroke: 1050 mm; Motor mounting: Left Side Motor	1050 mm	1278 mm	16.8 kg
Configuration 28 - Stroke: 1100 mm; Motor mounting: Left Side Motor	1100 mm	1328 mm	17.3 kg
Configuration 29 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	350 mm	578 mm	9.8 kg
Configuration 30 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	600 mm	828 mm	12.3 kg
Configuration 31 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	600 mm	838 mm	11.2 kg
Configuration 32 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	450 mm	688 mm	9.7 kg
Configuration 33 - Stroke: 850 mm; Motor mounting: Left Side Motor	850 mm	1078 mm	14.8 kg
Configuration 34 - Stroke: 900 mm; Motor mounting: Left Side Motor	900 mm	1128 mm	15.3 kg
Configuration 35 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	250 mm	478 mm	8.8 kg
Configuration 36 - Stroke: 200 mm; Motor mounting: Left Side Motor	200 mm	428 mm	8.3 kg
Configuration 37 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	350 mm	588 mm	8.7 kg
Configuration 38 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	800 mm	1038 mm	13.2 kg
Configuration 39 - Stroke: 600 mm; Motor mounting: Left Side Motor	600 mm	828 mm	12.3 kg
Configuration 40 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	700 mm	928 mm	13.3 kg
Configuration 41 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	850 mm	1078 mm	14.8 kg
Configuration 42 - Stroke: 400 mm; Motor mounting: Left Side Motor	400 mm	628 mm	10.3 kg
Configuration 43 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1050 mm	1288 mm	15.7 kg
Configuration 44 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1000 mm	1228 mm	16.3 kg
Configuration 45 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1200 mm	1428 mm	18.3 kg
Configuration 46 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1200 mm	1438 mm	17.2 kg
Configuration 47 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	300 mm	528 mm	9.3 kg
Configuration 48 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	328 mm	7.3 kg
Configuration 49 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1150 mm	1388 mm	16.7 kg
Configuration 50 - Stroke: 450 mm; Motor mounting: Left Side Motor	450 mm	678 mm	10.8 kg
Configuration 51 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	200 mm	428 mm	8.3 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 52 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	950 mm	1178 mm	15.8 kg
Configuration 53 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	550 mm	788 mm	10.7 kg
Configuration 54 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	150 mm	378 mm	7.8 kg
Configuration 55 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	650 mm	888 mm	11.7 kg
Configuration 56 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1100 mm	1338 mm	16.2 kg
Configuration 57 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	150 mm	388 mm	6.7 kg
Configuration 58 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	750 mm	978 mm	13.8 kg
Configuration 59 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	200 mm	438 mm	7.2 kg
Configuration 60 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	450 mm	678 mm	10.8 kg
Configuration 61 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	950 mm	1188 mm	14.7 kg
Configuration 62 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1150 mm	1378 mm	17.8 kg
Configuration 63 - Stroke: 500 mm; Motor mounting: Left Side Motor	500 mm	728 mm	11.3 kg
Configuration 64 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	500 mm	738 mm	10.2 kg
Configuration 65 - Stroke: 1150 mm; Motor mounting: Left Side Motor	1150 mm	1378 mm	17.8 kg
Configuration 66 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1050 mm	1278 mm	16.8 kg
Configuration 67 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1000 mm	1238 mm	15.2 kg
Configuration 68 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	750 mm	988 mm	12.7 kg
Configuration 69 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	500 mm	728 mm	11.3 kg

Mounting and Drive Configuration

Mounting and Drive Configuration

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 01 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	14
Configuration 02 - Stroke: 350 mm; Motor mounting: Left Side Motor	100 mm	16
Configuration 03 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	22
Configuration 04 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	18
Configuration 05 - Stroke: 250 mm; Motor mounting: Left Side Motor	100 mm	14
Configuration 06 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	32
Configuration 07 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	20
Configuration 08 - Stroke: 800 mm; Motor mounting: Left Side Motor	50 mm	26
Configuration 09 - Stroke: 650 mm; Motor mounting: Left Side Motor	100 mm	22
Configuration 10 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	18
Configuration 11 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	16
Configuration 12 - Stroke: 100 mm; Motor mounting: Left Side Motor	50 mm	12
Configuration 13 - Stroke: 150 mm; Motor mounting: Left Side Motor	100 mm	12
Configuration 14 - Stroke: 950 mm; Motor mounting: Left Side Motor	100 mm	28
Configuration 15 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	28
Configuration 16 - Stroke: 750 mm; Motor mounting: Left Side Motor	100 mm	24
Configuration 17 - Stroke: 300 mm; Motor mounting: Left Side Motor	50 mm	16
Configuration 18 - Stroke: 550 mm; Motor mounting: Left Side Motor	100 mm	20
Configuration 19 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	26
Configuration 20 - Stroke: 700 mm; Motor mounting: Left Side Motor	50 mm	24
Configuration 21 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	24
Configuration 22 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	28
Configuration 23 - Stroke: 1000 mm; Motor mounting: Left Side Motor	50 mm	30
Configuration 24 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	12

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 25 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	26
Configuration 26 - Stroke: 1200 mm; Motor mounting: Left Side Motor	50 mm	34
Configuration 27 - Stroke: 1050 mm; Motor mounting: Left Side Motor	100 mm	30
Configuration 28 - Stroke: 1100 mm; Motor mounting: Left Side Motor	50 mm	32
Configuration 29 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	16
Configuration 30 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	22
Configuration 31 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	22
Configuration 32 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	18
Configuration 33 - Stroke: 850 mm; Motor mounting: Left Side Motor	100 mm	26
Configuration 34 - Stroke: 900 mm; Motor mounting: Left Side Motor	50 mm	28
Configuration 35 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	14
Configuration 36 - Stroke: 200 mm; Motor mounting: Left Side Motor	50 mm	14
Configuration 37 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	16
Configuration 38 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	26
Configuration 39 - Stroke: 600 mm; Motor mounting: Left Side Motor	50 mm	22
Configuration 40 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	24
Configuration 41 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	26
Configuration 42 - Stroke: 400 mm; Motor mounting: Left Side Motor	50 mm	18
Configuration 43 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	30
Configuration 44 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	30
Configuration 45 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	34
Configuration 46 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	34
Configuration 47 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	16
Configuration 48 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	12
Configuration 49 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	32
Configuration 50 - Stroke: 450 mm; Motor mounting: Left Side Motor	100 mm	18
Configuration 51 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	14
Configuration 52 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	28

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 53 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	20
Configuration 54 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	12
Configuration 55 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	22
Configuration 56 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	32
Configuration 57 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	12
Configuration 58 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	24
Configuration 59 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	14
Configuration 60 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	18
Configuration 61 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	28
Configuration 62 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	32
Configuration 63 - Stroke: 500 mm; Motor mounting: Left Side Motor	50 mm	20
Configuration 64 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	20
Configuration 65 - Stroke: 1150 mm; Motor mounting: Left Side Motor	100 mm	32
Configuration 66 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	30
Configuration 67 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	30
Configuration 68 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	24
Configuration 69 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	20

Motor Interface Configuration

Motor Interface Configuration

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 01 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 02 - Stroke: 350 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 03 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 04 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 05 - Stroke: 250 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 06 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 07 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 08 - Stroke: 800 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 09 - Stroke: 650 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 10 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 11 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 12 - Stroke: 100 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 13 - Stroke: 150 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 14 - Stroke: 950 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 15 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 16 - Stroke: 750 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 17 - Stroke: 300 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 18 - Stroke: 550 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 19 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 20 - Stroke: 700 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 21 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 22 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 23 - Stroke: 1000 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 24 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 25 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 26 - Stroke: 1200 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 27 - Stroke: 1050 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 28 - Stroke: 1100 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 29 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 30 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 31 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 32 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 33 - Stroke: 850 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 34 - Stroke: 900 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 35 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 36 - Stroke: 200 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 37 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 38 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 39 - Stroke: 600 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 40 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 41 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 42 - Stroke: 400 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 43 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 44 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 45 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 46 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 47 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 48 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 49 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 50 - Stroke: 450 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 51 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 52 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 53 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 54 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 55 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 56 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 57 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 58 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 59 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 60 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 61 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 62 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 63 - Stroke: 500 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 64 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 65 - Stroke: 1150 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 66 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 67 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 68 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 69 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor

Overall Dimensions and Mounting Interface

PARAMETER	VALUE	UNIT
Ball Screw Diameter	16	mm

- Confirm this exact SKU, the selected motor-mounting configuration and the applicable mechanical views before using dimensions or interface geometry.
- Keep mounting faces flat, clean and free of burrs, raised holes, debris and coating buildup.
- Reserve assembly, inspection, cable, lubrication and removal access around the module and motor interface.

Load Path and Installation Orientation

- Route axial force through the carriage, supported mounting structure and host guide; include offset, side load, acceleration, shock and emergency-stop cases.
- Validate horizontal, wall and vertical installation loads with the actual payload center, guide spacing, host stiffness and duty cycle.
- Control payload center of gravity and overhung moment; verify the complete installed load path rather than inferring capacity from module mass or size.

Motion and Duty-Cycle Validation

PARAMETER	VALUE	UNIT
Rated Thrust	433	N
Maximum Horizontal Payload	36	kg
Maximum Vertical Payload	7	

- Validate the complete acceleration, travel, dwell, reversal and stop cycle using the stroke and selected motor configuration.
- Establish speed, acceleration, payload and moment limits from the complete selected module, motor, guide and host calculation.
- Verify temperature and resonance behavior using the installed motor, stroke, load, mounting heat path and operating cycle.

Motor, Coupling and Sensor Integration

PARAMETER	VALUE	UNIT
Configured Motor Power	400	W

- Match the motor mounting style, adapter, configured motor power and interface dimensions before assembly.
- Verify coupling bore, engagement, concentricity, axial position and tightening controls, then check smooth travel at zero energy.
- Provide cable slack, bend radius, strain relief and sensor clearance across the complete motion envelope.

Maintenance, Contamination and Service Envelope

- Prevent chips, fibers, cleaning residue and moisture from entering the ball screw, guide, sensor and coupling interfaces.
- Provide access for lubrication, inspection, sensor adjustment, fastener verification and specified removal.
- Stop and inspect after binding, impact, abnormal noise, rising temperature, unexpected friction or protection damage.

Commissioning and Safety

- Commission in stages with the host guide, limits, guards and cable routing installed; verify each boundary before increasing speed or load.
- At low energy verify travel direction, home and limit behavior, command polarity, stroke and sensor state.
- Verify emergency stop, fault response, recovery behavior and safe holding requirements for the installed orientation.

Integration Checklist

- 01 Confirm the exact SKU, parameters and selected mechanical-view configuration.
- 02 Verify working stroke, overall length, module mass, mounting-hole count and service clearance.
- 03 Establish the complete axial, side-load and moment load path for the host structure.
- 04 Validate horizontal, wall and vertical installation cases using the actual payload center and duty cycle.
- 05 Match motor mounting style, configured motor power, adapter and coupling dimensions.
- 06 Verify coupling alignment, engagement, tightening and smooth travel before applying drive power.
- 07 Provide cable slack, bend radius, strain relief and sensor clearance across the full motion envelope.
- 08 Protect the ball screw, guide, sensors and coupling from contamination and moisture.
- 09 At low energy verify direction, home, limits, stroke, speed and fault-stop behavior.
- 10 Request current 2D, STEP, motor-interface, wiring, lubrication and maintenance data before final integration.

[View SKU Product Datasheet](#) [Request controlled 2D drawing](#) [Request controlled STEP review](#) [Request a Quote](#)

Engineering Use and Verification Notice

01. This Dimensional & Integration Guide applies only to EmbodyStack SKU ES-LA-S04-P04 and is intended for dimensional evaluation and preliminary integration. It is not a applicable manufacturing drawing, module or motor selection approval, payload or safety approval, wiring final integration, machinery risk assessment or integration planning document and must not be used as the sole basis for machining, host-structure design, coupling manufacture, fastener selection, cable assembly or final integration. Before design freeze, assembly or commissioning, verify dimensions, interface geometry, mounting holes, travel and collision envelope, load path, orientation, payload center, speed, acceleration, motor, adapter, coupling, sensors, cable routing, limits, thermal behavior, contamination control and maintenance requirements against the applicable EmbodyStack engineering data for this exact SKU and selected configuration. Where this guide and applicable product documentation differ, the applicable product documentation governs. Validate the complete module, motor, guide, host structure, motion cycle, guarding, fault cases and applicable regulatory requirements under intended operating conditions.