ENGINEERING DOCUMENTATION

Ball Screw Linear Module Engineering Configuration

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-LA-S05-P04	DRAFT-08 / 29 Aug 2026	Engineering Integration Reference

Integration Overview

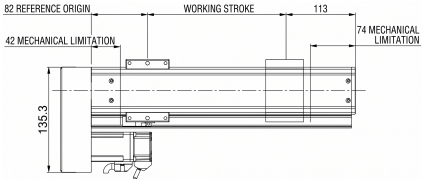
Exact ball-screw linear-module configuration for guided linear motion in automation equipment. This guide supports dimensional layout, mounting, load-path , motor and coupling integration, cable and sensor clearance, maintenance and commissioning for ES-LA-S05-P04.

Key Integration Facts

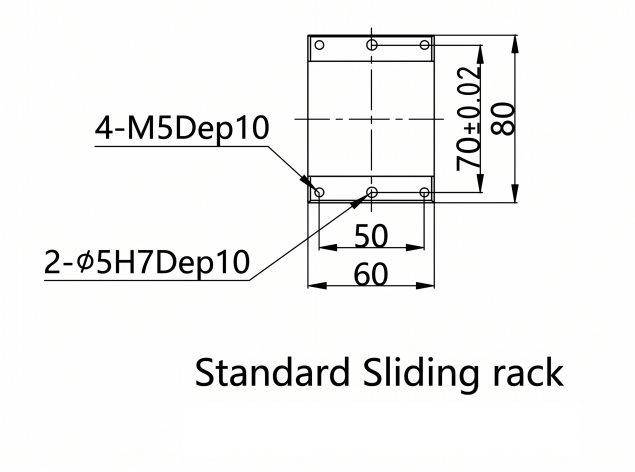
INTEGRATION ITEM	VALUE
Working Stroke	Configuration-dependent (87 records)
Overall Length	Configuration-dependent (69 records)
Module Mass	
Mounting Hole Count	
Motor Mounting Style	Configuration-dependent (87 records)
Configured Motor Power	400 W

Product Structure & Views

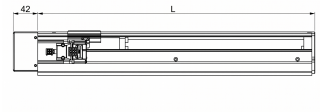
These views present the selected product structure, mounting interfaces and relevant integration geometry for this configuration.



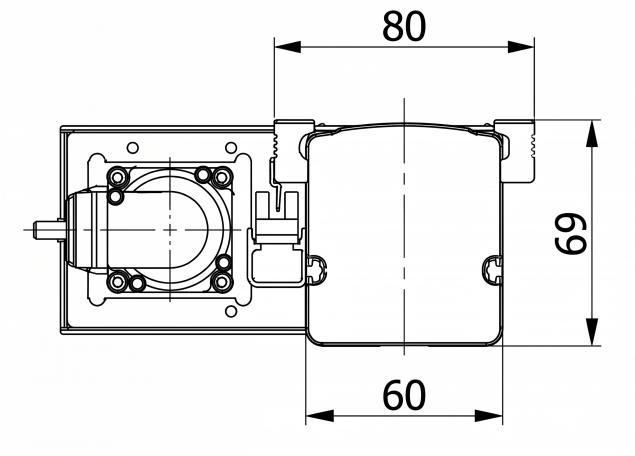
Mechanical View 1



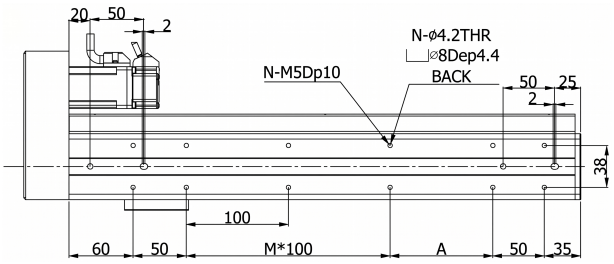
Mechanical View 2



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-ϕ5H7 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, ϕ4.2 mm through
	Counterbore hole specification	ϕ8 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: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1000 mm	1228 mm	16.3 kg
Configuration 02 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	250 mm	488 mm	7.7 kg
Configuration 03 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	500 mm	738 mm	10.2 kg
Configuration 04 - Stroke: 900 mm; Motor mounting: Left Side Motor; Motor power: 400 W	900 mm	1128 mm	15.3 kg
Configuration 05 - Stroke: 1000 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1000 mm	1228 mm	16.3 kg
Configuration 06 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	850 mm	1088 mm	13.7 kg
Configuration 07 - Stroke: 1100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1100 mm	1328 mm	17.3 kg
Configuration 08 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	450 mm	688 mm	9.7 kg
Configuration 09 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	950 mm	1188 mm	14.7 kg
Configuration 10 - Stroke: 1450 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1450 mm	-	-
Configuration 11 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1150 mm	1378 mm	17.8 kg
Configuration 12 - Stroke: 1150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1150 mm	1378 mm	17.8 kg
Configuration 13 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1050 mm	1278 mm	16.8 kg
Configuration 14 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	950 mm	1178 mm	15.8 kg
Configuration 15 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	300 mm	528 mm	9.3 kg
Configuration 16 - Stroke: 1250 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1250 mm	-	-
Configuration 17 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	500 mm	728 mm	11.3 kg
Configuration 18 - Stroke: 1300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1300 mm	-	-

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 19 - Stroke: 1450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1450 mm	-	-
Configuration 20 - Stroke: 550 mm; Motor mounting: Left Side Motor; Motor power: 400 W	550 mm	778 mm	11.8 kg
Configuration 21 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	400 mm	638 mm	9.2 kg
Configuration 22 - Stroke: 1500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1500 mm	-	-
Configuration 23 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	150 mm	378 mm	7.8 kg
Configuration 24 - Stroke: 950 mm; Motor mounting: Left Side Motor; Motor power: 400 W	950 mm	1178 mm	15.8 kg
Configuration 25 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	650 mm	888 mm	11.7 kg
Configuration 26 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	700 mm	928 mm	13.3 kg
Configuration 27 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	350 mm	578 mm	9.8 kg
Configuration 28 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	200 mm	438 mm	7.2 kg
Configuration 29 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1200 mm	1428 mm	18.3 kg
Configuration 30 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	338 mm	6.2 kg
Configuration 31 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1100 mm	1328 mm	17.3 kg
Configuration 32 - Stroke: 800 mm; Motor mounting: Left Side Motor; Motor power: 400 W	800 mm	1028 mm	14.3 kg
Configuration 33 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	750 mm	988 mm	12.7 kg
Configuration 34 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	650 mm	878 mm	12.8 kg
Configuration 35 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1100 mm	1338 mm	16.2 kg
Configuration 36 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	850 mm	1078 mm	14.8 kg
Configuration 37 - Stroke: 1250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1250 mm	-	-
Configuration 38 - Stroke: 600 mm; Motor mounting: Left Side Motor; Motor power: 400 W	600 mm	828 mm	12.3 kg
Configuration 39 - Stroke: 350 mm; Motor mounting: Left Side Motor; Motor power: 400 W	350 mm	578 mm	9.8 kg
Configuration 40 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	550 mm	778 mm	11.8 kg
Configuration 41 - Stroke: 150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	150 mm	378 mm	7.8 kg
Configuration 42 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	450 mm	678 mm	10.8 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 43 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	350 mm	588 mm	8.7 kg
Configuration 44 - Stroke: 1350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1350 mm	-	-
Configuration 45 - Stroke: 1500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1500 mm	-	-
Configuration 46 - Stroke: 1350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1350 mm	-	-
Configuration 47 - Stroke: 700 mm; Motor mounting: Left Side Motor; Motor power: 400 W	700 mm	928 mm	13.3 kg
Configuration 48 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	600 mm	828 mm	12.3 kg
Configuration 49 - Stroke: 1200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1200 mm	1428 mm	18.3 kg
Configuration 50 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	300 mm	538 mm	8.2 kg
Configuration 51 - Stroke: 850 mm; Motor mounting: Left Side Motor; Motor power: 400 W	850 mm	1078 mm	14.8 kg
Configuration 52 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	600 mm	838 mm	11.2 kg
Configuration 53 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	250 mm	478 mm	8.8 kg
Configuration 54 - Stroke: 1300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1300 mm	-	-
Configuration 55 - Stroke: 250 mm; Motor mounting: Left Side Motor; Motor power: 400 W	250 mm	478 mm	8.8 kg
Configuration 56 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1150 mm	1388 mm	16.7 kg
Configuration 57 - Stroke: 1500 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1500 mm	-	-
Configuration 58 - Stroke: 1450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1450 mm	-	-
Configuration 59 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	700 mm	938 mm	12.2 kg
Configuration 60 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	150 mm	388 mm	6.7 kg
Configuration 61 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	900 mm	1128 mm	15.3 kg
Configuration 62 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	400 mm	628 mm	10.3 kg
Configuration 63 - Stroke: 1400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1400 mm	-	-
Configuration 64 - Stroke: 400 mm; Motor mounting: Left Side Motor; Motor power: 400 W	400 mm	628 mm	10.3 kg
Configuration 65 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	200 mm	428 mm	8.3 kg
Configuration 66 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	800 mm	1038 mm	13.2 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 67 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1200 mm	1438 mm	17.2 kg
Configuration 68 - Stroke: 750 mm; Motor mounting: Left Side Motor; Motor power: 400 W	750 mm	978 mm	13.8 kg
Configuration 69 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	750 mm	978 mm	13.8 kg
Configuration 70 - Stroke: 1350 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1350 mm	-	-
Configuration 71 - Stroke: 200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	200 mm	428 mm	8.3 kg
Configuration 72 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	328 mm	7.3 kg
Configuration 73 - Stroke: 450 mm; Motor mounting: Left Side Motor; Motor power: 400 W	450 mm	678 mm	10.8 kg
Configuration 74 - Stroke: 1050 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1050 mm	1278 mm	16.8 kg
Configuration 75 - Stroke: 1400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1400 mm	-	-
Configuration 76 - Stroke: 1400 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1400 mm	-	-
Configuration 77 - Stroke: 300 mm; Motor mounting: Left Side Motor; Motor power: 400 W	300 mm	528 mm	9.3 kg
Configuration 78 - Stroke: 500 mm; Motor mounting: Left Side Motor; Motor power: 400 W	500 mm	728 mm	11.3 kg
Configuration 79 - Stroke: 650 mm; Motor mounting: Left Side Motor; Motor power: 400 W	650 mm	878 mm	12.8 kg
Configuration 80 - Stroke: 1300 mm; Motor mounting: Left Side Motor; Motor power: 400 W	1300 mm	-	-
Configuration 81 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	900 mm	1138 mm	14.2 kg
Configuration 82 - Stroke: 1250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	1250 mm	-	-
Configuration 83 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	800 mm	1028 mm	14.3 kg
Configuration 84 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1000 mm	1238 mm	15.2 kg
Configuration 85 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	1050 mm	1288 mm	15.7 kg
Configuration 86 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	550 mm	788 mm	10.7 kg
Configuration 87 - Stroke: 100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	328 mm	7.3 kg

Mounting and Drive Configuration

Mounting and Drive Configuration

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 01 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	30
Configuration 02 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	14
Configuration 03 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	20
Configuration 04 - Stroke: 900 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	28
Configuration 05 - Stroke: 1000 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	30
Configuration 06 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	26
Configuration 07 - Stroke: 1100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	32
Configuration 08 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	18
Configuration 09 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	28
Configuration 11 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	32
Configuration 12 - Stroke: 1150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	32
Configuration 13 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	30
Configuration 14 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	28
Configuration 15 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	16
Configuration 17 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	20
Configuration 20 - Stroke: 550 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	20
Configuration 21 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	18
Configuration 23 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	12
Configuration 24 - Stroke: 950 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	28
Configuration 25 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	22

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 26 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	24
Configuration 27 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	16
Configuration 28 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	14
Configuration 29 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	34
Configuration 30 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	12
Configuration 31 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	32
Configuration 32 - Stroke: 800 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	26
Configuration 33 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	24
Configuration 34 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	22
Configuration 35 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	32
Configuration 36 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	26
Configuration 38 - Stroke: 600 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	22
Configuration 39 - Stroke: 350 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	16
Configuration 40 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	20
Configuration 41 - Stroke: 150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	12
Configuration 42 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	18
Configuration 43 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	16
Configuration 47 - Stroke: 700 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	24
Configuration 48 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	22
Configuration 49 - Stroke: 1200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	34
Configuration 50 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	16
Configuration 51 - Stroke: 850 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	26
Configuration 52 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	22
Configuration 53 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	14

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 55 - Stroke: 250 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	14
Configuration 56 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	32
Configuration 59 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	24
Configuration 60 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	12
Configuration 61 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	28
Configuration 62 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	18
Configuration 64 - Stroke: 400 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	18
Configuration 65 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	14
Configuration 66 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	26
Configuration 67 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	34
Configuration 68 - Stroke: 750 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	24
Configuration 69 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	100 mm	24
Configuration 71 - Stroke: 200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	14
Configuration 72 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	12
Configuration 73 - Stroke: 450 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	18
Configuration 74 - Stroke: 1050 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	30
Configuration 77 - Stroke: 300 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	16
Configuration 78 - Stroke: 500 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	20
Configuration 79 - Stroke: 650 mm; Motor mounting: Left Side Motor; Motor power: 400 W	100 mm	22
Configuration 81 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	28
Configuration 83 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	50 mm	26
Configuration 84 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	50 mm	30
Configuration 85 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	30
Configuration 86 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	100 mm	20

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 87 - Stroke: 100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	50 mm	12

Motor Interface Configuration

Motor Interface Configuration

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 01 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 02 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 03 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 04 - Stroke: 900 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 05 - Stroke: 1000 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 06 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 07 - Stroke: 1100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 08 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 09 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 10 - Stroke: 1450 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 11 - Stroke: 1150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 12 - Stroke: 1150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 13 - Stroke: 1050 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 14 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 15 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 16 - Stroke: 1250 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 17 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 18 - Stroke: 1300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 19 - Stroke: 1450 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 20 - Stroke: 550 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 21 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 22 - Stroke: 1500 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 23 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 24 - Stroke: 950 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 25 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 26 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 27 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 28 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 29 - Stroke: 1200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 30 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 31 - Stroke: 1100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 32 - Stroke: 800 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 33 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 34 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 35 - Stroke: 1100 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 36 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 37 - Stroke: 1250 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 38 - Stroke: 600 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 39 - Stroke: 350 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 40 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 41 - Stroke: 150 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 42 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 43 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 44 - Stroke: 1350 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 45 - Stroke: 1500 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 46 - Stroke: 1350 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 47 - Stroke: 700 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 48 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 49 - Stroke: 1200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 50 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 51 - Stroke: 850 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 52 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 53 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 54 - Stroke: 1300 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 55 - Stroke: 250 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 56 - Stroke: 1150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 57 - Stroke: 1500 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 58 - Stroke: 1450 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 59 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 60 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 61 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 62 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 63 - Stroke: 1400 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 64 - Stroke: 400 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 65 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 66 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 67 - Stroke: 1200 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 68 - Stroke: 750 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 69 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 70 - Stroke: 1350 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 71 - Stroke: 200 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 72 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 73 - Stroke: 450 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 74 - Stroke: 1050 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 75 - Stroke: 1400 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 76 - Stroke: 1400 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 77 - Stroke: 300 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 78 - Stroke: 500 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 79 - Stroke: 650 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 80 - Stroke: 1300 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left Side Motor
Configuration 81 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 82 - Stroke: 1250 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 83 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 400 W	Right Side Motor
Configuration 84 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 85 - Stroke: 1050 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 86 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 400 W	External Direct Coupling
Configuration 87 - Stroke: 100 mm; Motor mounting: Left Side Motor; Motor power: 400 W	Left 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

- 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-S05-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.