



DGC SERIES

- ▶ Linear motor positioning system
- ▶ Short lead time
- ▶ High price-performance ratio
- ▶ Easy installation

DGC90 Series

Introduction

Sizing Guide

Frequently Asked Questions

Motion Control of Gantry Stages

Linear Module

Voice Coil Module

Stacked Stages

Gantry Stages

Akribis systems

Motor	Unit	DGC90 Series
		AQM24-B1
Continuous Force	N	60.8
Peak Force	N	153.1
Resolution	μm	TTL digital 1 resolution magnetic scale
		TTL digital 0.5 resolution optical scale
Linear Guide	-	12#
Repeatability	μm	Magnetic scale: ±10
		Optical scale: ±5
Straightness	μm/mm	±10/300
Maximum Velocity	m/s	1.5
Rated Payload	kg	10
No-load Moving Mass	kg	1.7
Mounting Orientation	-	Horizontal or side orientation

Ordering Part Number (OPN)

DGC1 S 01 Q10 A0F 1 A2

Model:

DGC1: DGC90

Termination:

2: DSUB

Cover Type:

S: Standard (Clear Anodized)

Cable Length:

A: 0.5m

Scale Type:

1: Steel tape, 11ppm/K
7: Magnetic Tape, 17ppm/K

Effective Stroke:

01: 100mm
02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm
09: 900mm
10: 1000mm
11: 1100mm

Encoder Type:

A0F: ABI-21 (0.5μm)
S1E: MAGNET (1.0μm)

Motor Type:

Q10: AQM24-B1-J (Peak Force: 241.6N)

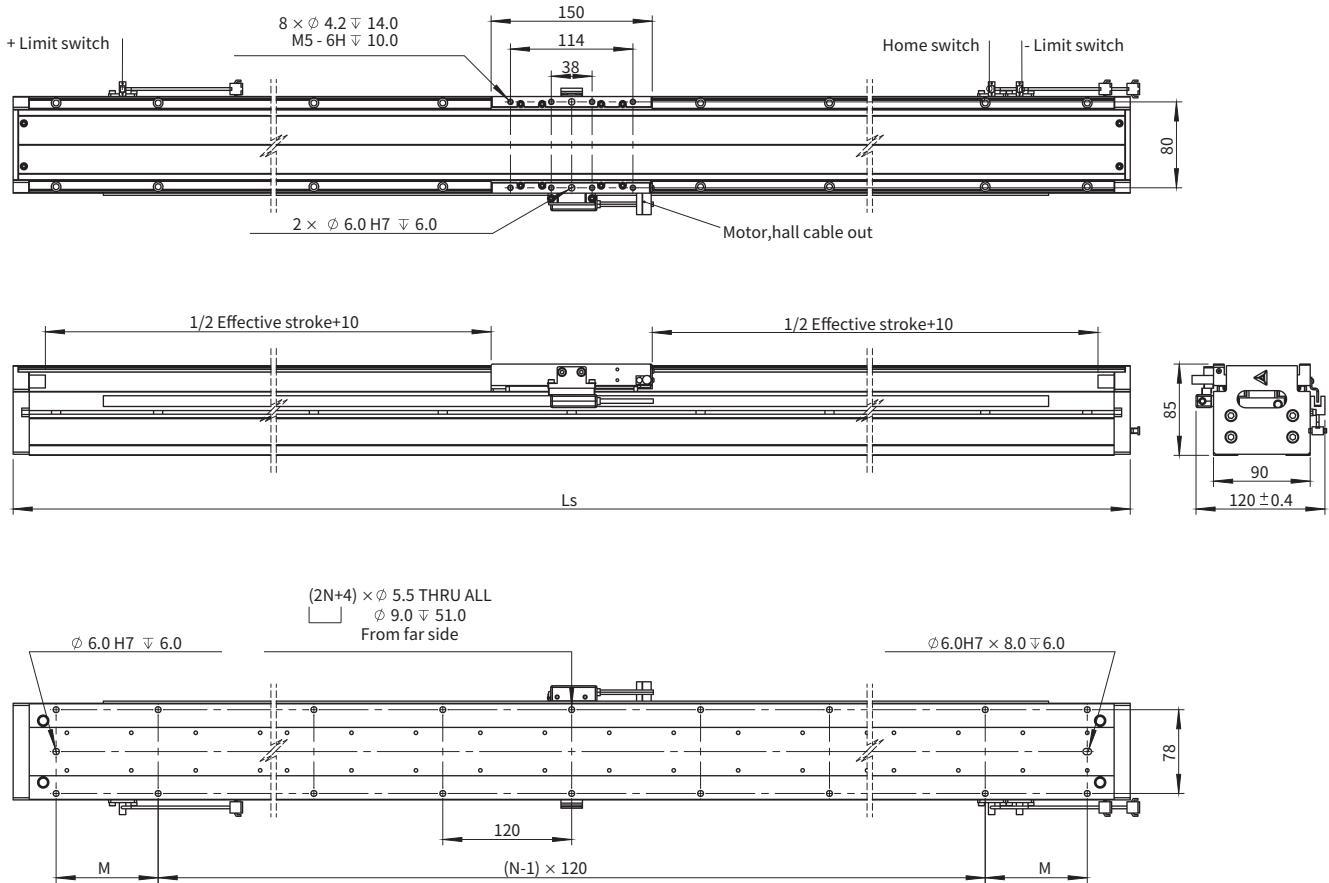
Note:

ⓘ Standard stroke in intervals of 100mm only, for more options, please contact Akribis sales engineers.

★ Products can be customized to meet specific working environment, please contact cust-service@akribis-sys.com.

DGC90 Series

DGC90-AQM24-B1 Dimension Drawing



Effective Stroke (mm)	Module Length Ls (mm)	N	M	Module Mass (kg)
100 *	340	1	130	6.5
200	430	3	55	7.5
300	530	3	105	8.5
400 *	640	5	40	9.7
500	730	5	85	10.5
600	830	7	15	11.5
700	930	7	65	12.5
800	1030	7	115	13.5
900	1130	9	45	14.8
1000 *	1240	9	100	15.9
1100	1330	11	25	16.7

DGC130 Series

Introduction

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Frequently Asked Questions

Motion Control of Gantry Stages

Linear Module

Voice Coil Module

Stacked Stages

Gantry Stages

Akribis Systems

Motor	Unit	DGC130 Series		
		AKM30-B1	AKM30-B2	AKM30-B4
Continuous Force	N	108.4	216.8	433.6
Peak Force	N	241.6	483.2	966.3
Resolution	μm	TTL digital 1 resolution magnetic scale		
		TTL digital 0.5 resolution optical scale		
Linear Guide	-	15#		
Repeatability	μm	Magnetic scale: ±10		
		Optical scale: ±5		
Straightness	μm/mm	±10/300	±10/300	±10/300
Maximum Velocity	m/s	3	3	3
Rated Payload	kg	15	25	50
No-load Moving Mass	kg	2.7	4.6	8.4
Mounting Orientation	-	Horizontal orientation	Horizontal orientation	Horizontal orientation

Ordering Part Number (OPN)

DGC2 S 01 K11 A0F 1 A 2

Model:

DGC2: DGC130

Termination:

2: DSUB

Cable Length:

A: 0.5m

Cover Type:

S: Standard (Clear Anodized)

Scale Type:

1: Steel tape, 11ppm/K
7: Magnetic Tape, 17ppm/KEffective Stroke:¹01: 100mm
02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm
09: 900mm
10: 1000mm
11: 1100mm

Encoder Type:

A0F: ABI-21 (0.5μm)
S1E: MAGNET (1.0μm)

Motor Type:

K11: AKM30-B1-J (Peak Force: 241.6N)
K13: AKM30-B2-J (Peak Force: 483.2N)
K15: AKM30-B4-J (Peak Force: 966.3N)

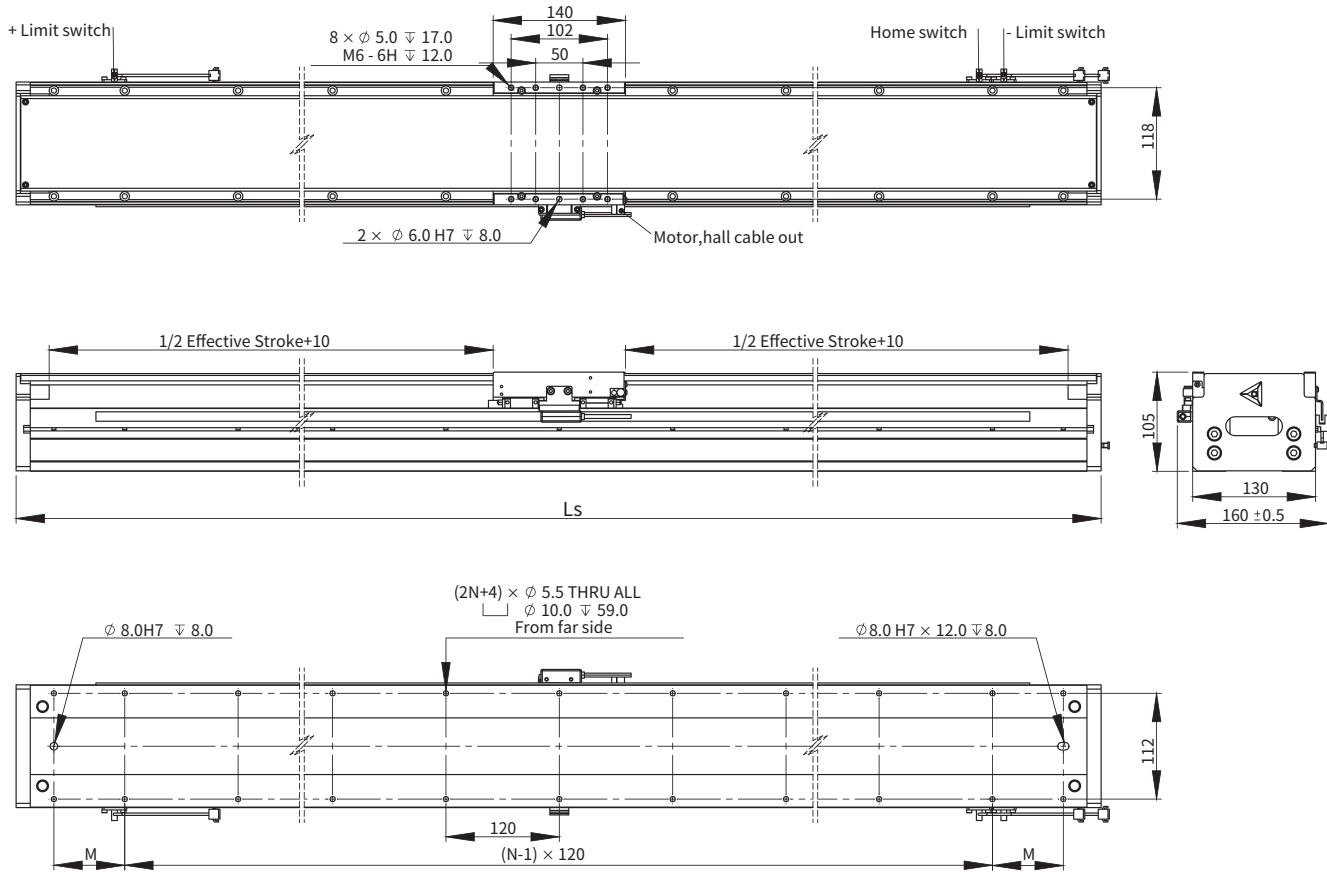
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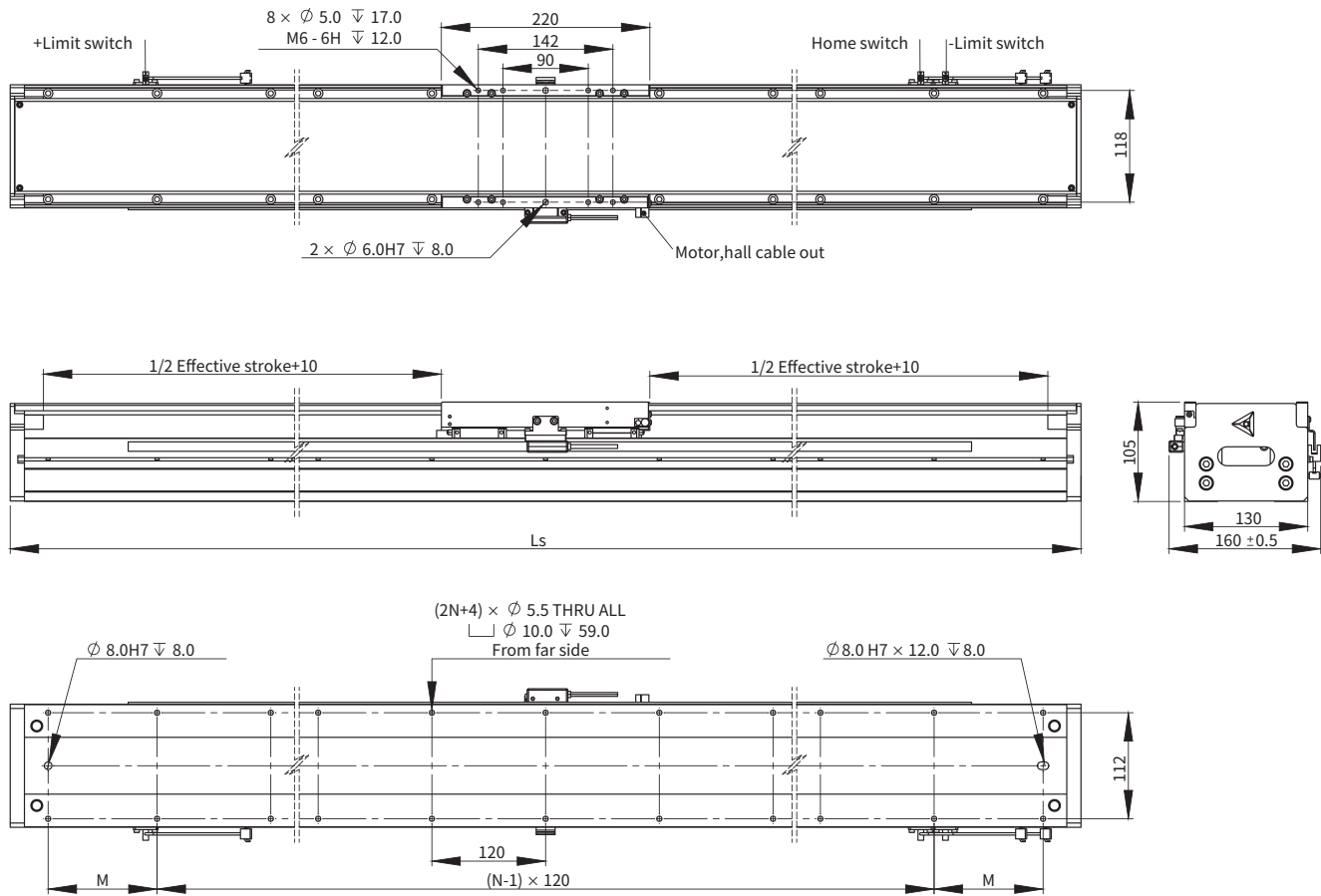
DGC130 Series

DGC130-AKM30-B1 Dimension Drawing



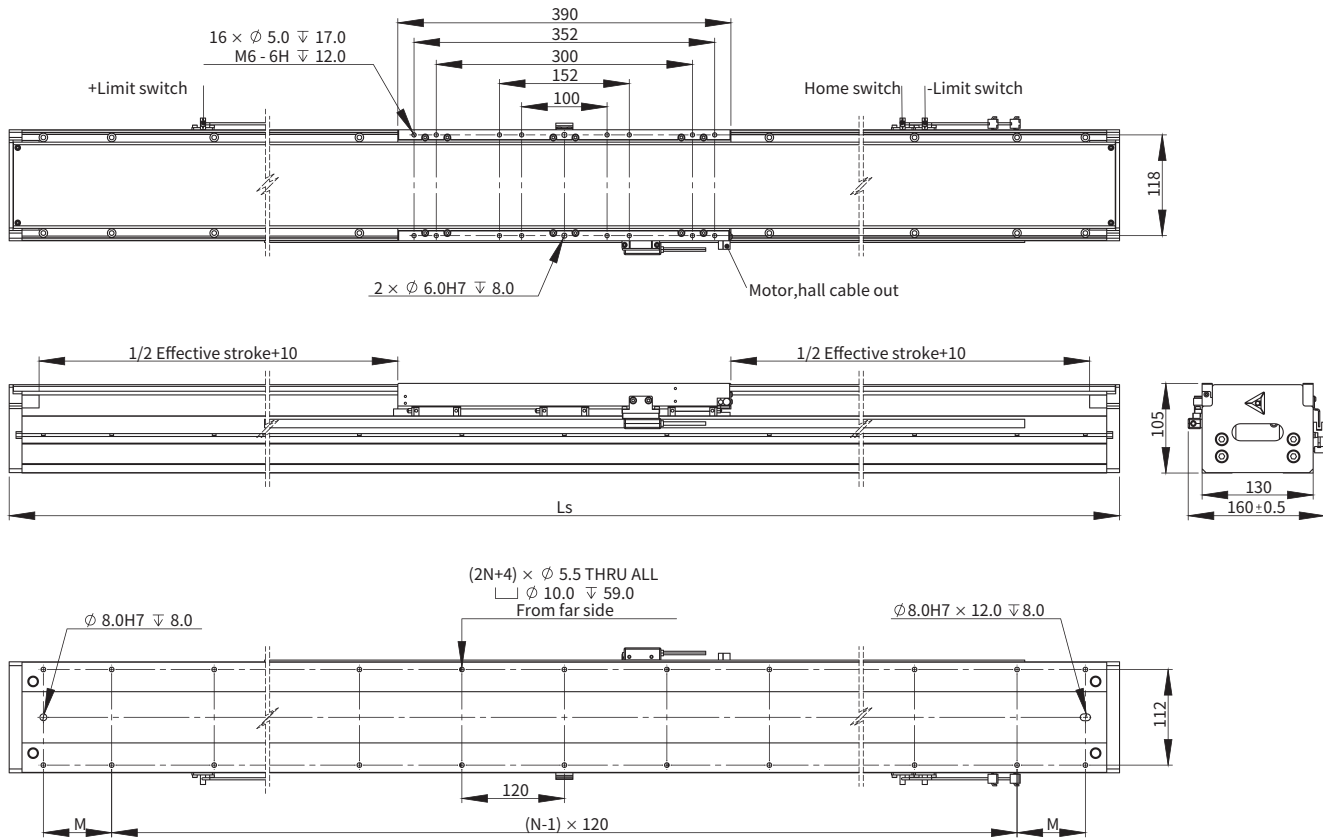
Effective Stroke (mm)	Module Length Ls (mm)	N	M	Module Mass (kg)
100	330	1	125	8.2
200	430	3	55	9.7
300	530	3	105	11.2
400	630	5	35	13.1
500	730	5	85	14.6
600	830	7	15	16.2
700	930	7	65	17.8
800	1030	7	115	19.3
900	1130	9	45	21.0
1000	1230	9	95	22.6
1100	1330	11	25	24.3

■ DGC130-AKM30-B2 Dimension Drawing



Effective Stroke (mm)	Module Length L_s (mm)	N	M	Module Mass (kg)
100	410	3	45	11.3
200	510	3	95	12.8
300	610	5	25	14.4
400	710	5	75	16.1
500	810	5	125	17.7
600	910	7	55	19.4
700	1010	7	105	20.9
800	1110	9	35	22.5
900	1210	9	85	24.2
1000	1310	11	15	25.9
1100	1410	11	65	27.4

■ DGC130-AKM30-B4 Dimension Drawing



Effective Stroke (mm)	Module Length Ls (mm)	N	M	Module Mass (kg)
100	580	3	130	17.8
200	680	5	60	19.3
300	780	5	110	21.0
400	880	7	40	22.8
500	980	7	90	24.3
600	1080	9	20	25.9
700	1180	9	70	27.5
800	1280	9	120	29.0
900	1380	11	50	30.8
1000	1480	11	100	32.4
1100	1580	13	30	34.0

DGC205 Series

Introduction

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Frequently Asked Questions

Motion Control of Gantry Stages

Linear Module

Voice Coil Module

Stacked Stages

Gantry Stages

Akribis Systems

Motor	Unit	DGC205 Series			
		AQM50-B1	AQM50-B2	AQM80-B1	AQM80-B2
Continuous Force	N	126.6	253.1	202.5	405.0
Peak Force	N	318.9	637.9	510.3	1020.6
Effective Stroke	mm	100~1100	100~1100	100~1100	100~1100
Resolution ¹	μm	0.5, 1.0	0.5, 1.0	0.5, 1.0	0.5, 1.0
Repeatability	μm	0.5 Resolution: ±5; 1.0 Resolution: ±10			
Straightness	μm/mm	±10/300	±10/300	±10/300	±10/300
Maximum Velocity	m/s	2	2	2	2
No-load Moving Mass	kg	3.3	5.6	3.9	6.8

¹ 0.5 μm resolution: TTL digital optical scale, 1.0 μm resolution: TTL digital magnetic scale.

Ordering Part Number (OPN)

DGC3 S 01 Q30 A0F 1 A 1

Model:

DGC3: DGC205

Termination:

1: Flying Leads
2: DSUB

Cable Length:

A: 0.5m

Cover Type:

S: Standard (Clear Anodized)

Scale Type:

1: Steel tape, 11ppm/K
7: Magnetic Tape, 17ppm/K

Encoder Type:

A0F: ABI-21 (0.5μm)
S1E: MAGNET (1.0μm)

Effective Stroke:¹

01: 100mm
02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm
09: 900mm
10: 1000mm
11: 1100mm

Motor Type:

Q30: AQM50-B1-J (Peak Force: 318.9N)
Q31: AQM50-B1-K (Peak Force: 318.9N)
Q32: AQM50-B2-J (Peak Force: 637.9N)
Q33: AQM50-B2-K (Peak Force: 637.9N)
Q40: AQM80-B1-J (Peak Force: 510.3N)
Q41: AQM80-B1-K (Peak Force: 510.3N)
Q42: AQM80-B2-J (Peak Force: 1020.6N)
Q43: AQM80-B2-K (Peak Force: 1020.6N)

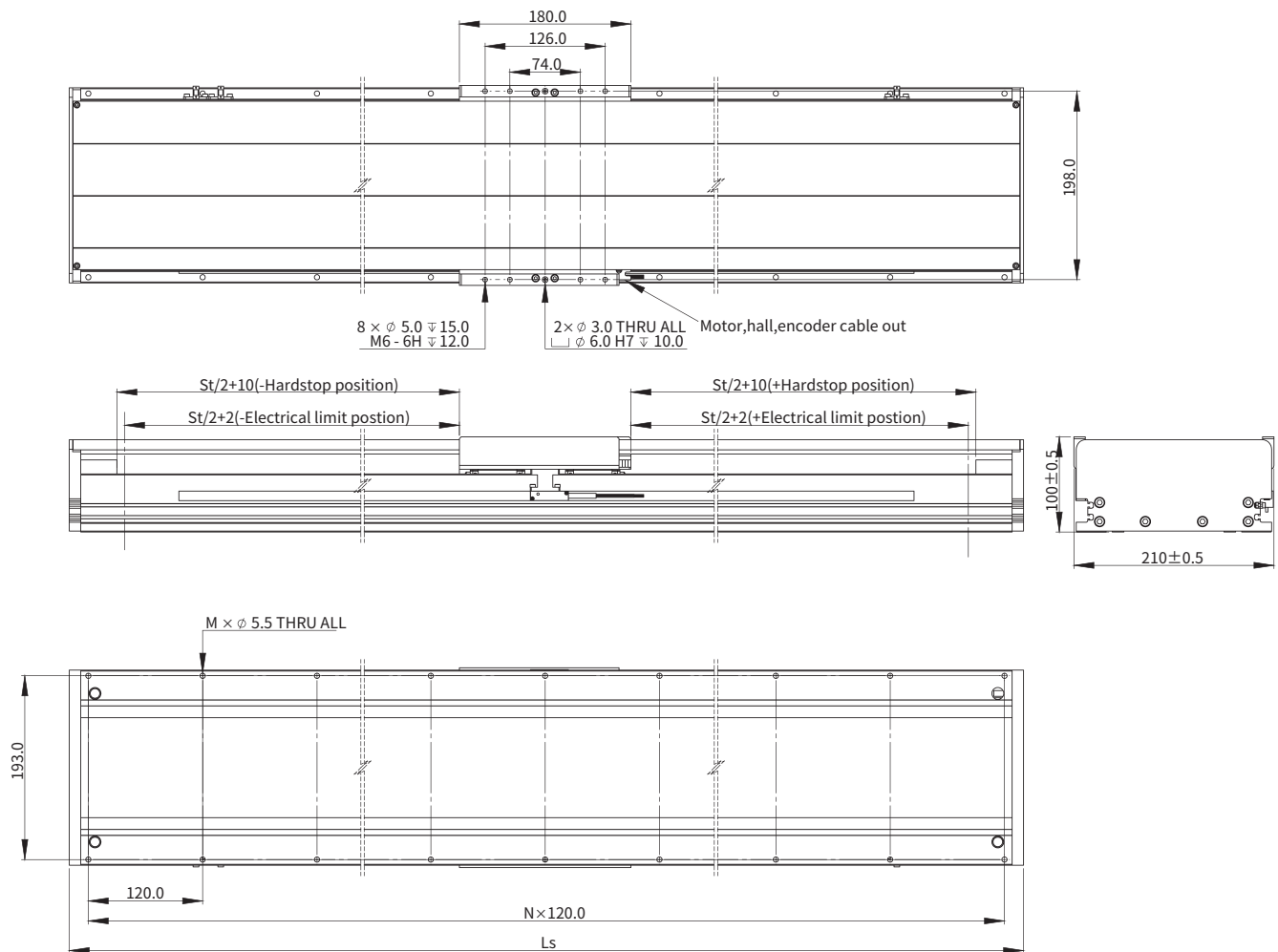
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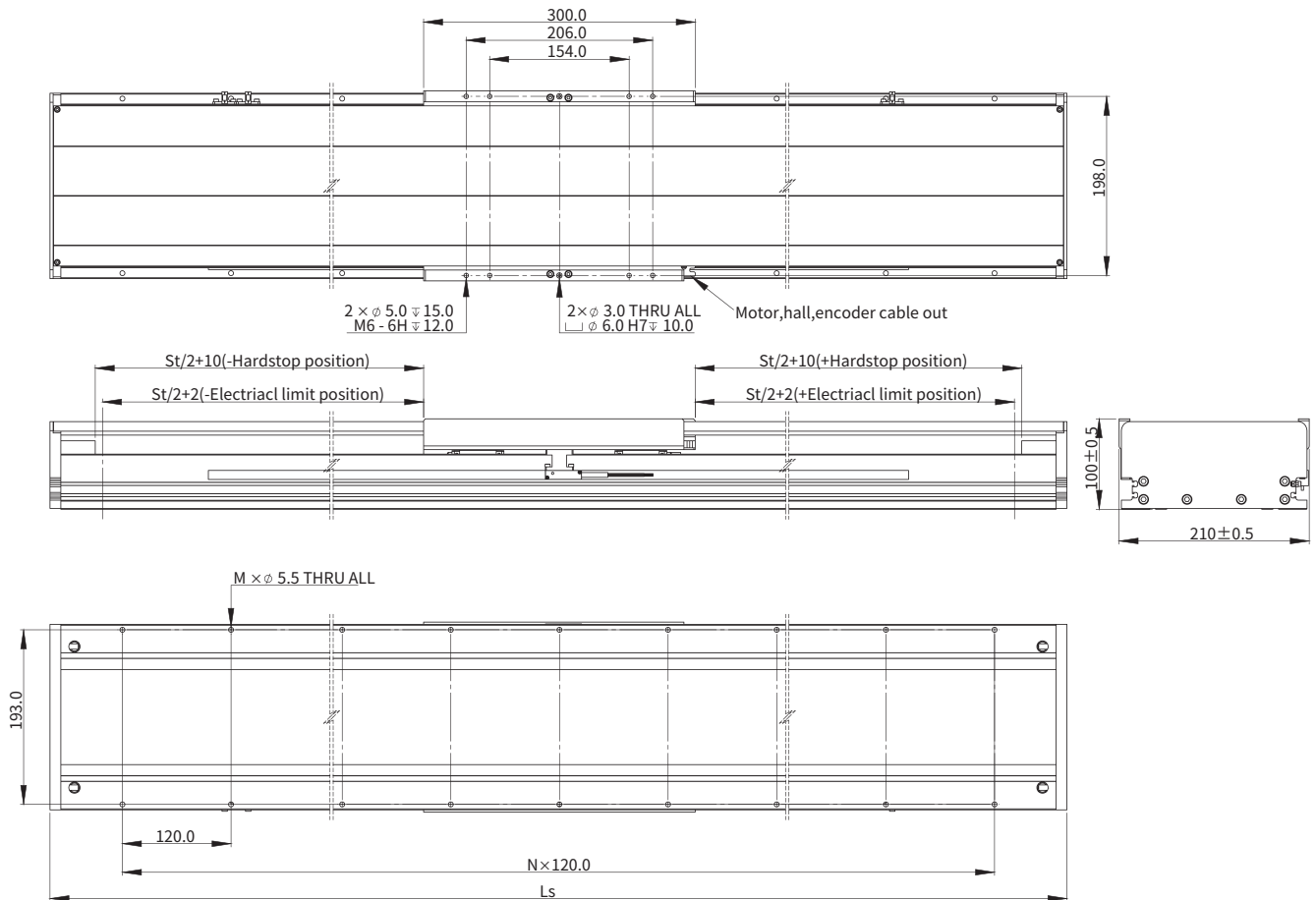
DGC205 Series

■ DGC205-AQM50/AQM80-B1 Dimension Drawing



Effective Stroke(mm)	Module Length Ls (mm)	N	M	Module Mass (kg)	
				DGC205-AQM50-B1	DGC205-AQM80-B1
100	400	2	6	14	15
200	500	2	6	16	17
300	600	4	10	18	19
400	700	4	10	20	22
500	800	6	14	23	25
600	900	6	14	25	27
700	1000	8	18	28	30
800	1100	8	18	30	32
900	1200	8	18	32	34
1000	1300	10	22	34	37
1100	1400	10	22	37	40

■ DGC205-AQM50/AQM80-B2 Dimension Drawing



Effective Stroke(mm)	Module Length Ls (mm)	N	M	Module Mass (kg)	
				DGC205-AQM50-B2	DGC205-AQM80-B2
100	520	4	10	18	20
200	620	4	10	21	23
300	720	4	10	23	25
400	820	6	14	25	28
500	920	6	14	28	30
600	1020	8	18	30	33
700	1120	8	18	32	35
800	1220	8	18	35	38
900	1320	10	22	37	40
1000	1420	10	22	40	43
1100	1520	12	26	42	45