

VRG-III SERIES

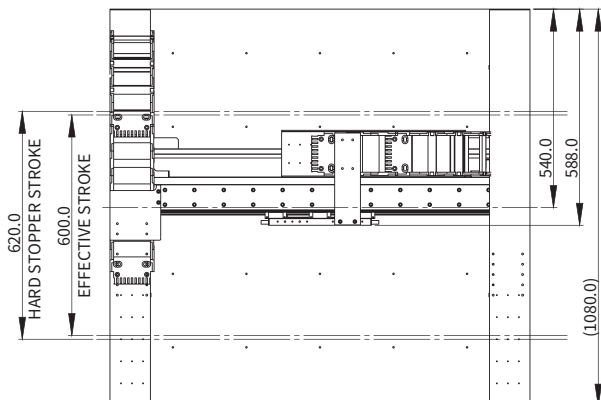
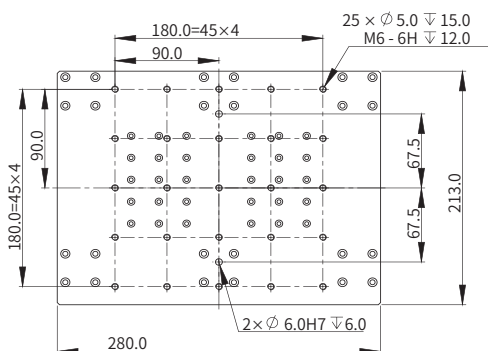
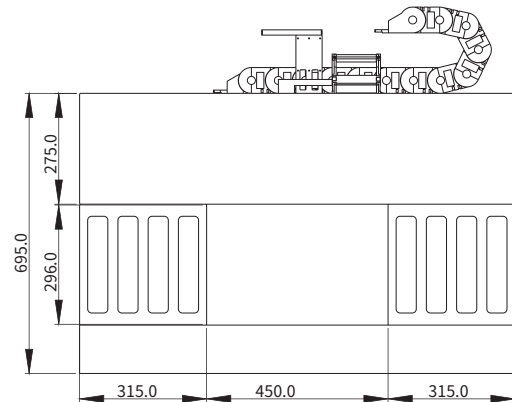
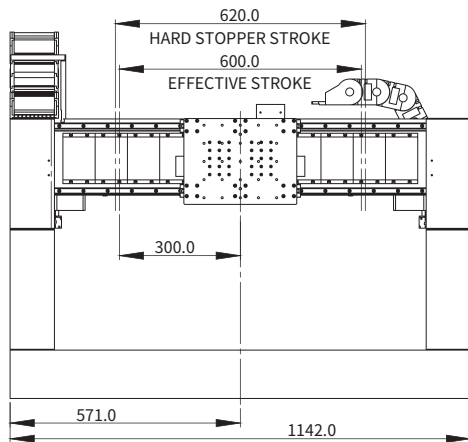
- ▶ A versatile gantry stage that generates propulsion in line with the bridge's COG
- ▶ Use ironcore AJM, AKM motor
- ▶ High force density

VRG-III

	Unit	L	U
Effective Stroke	mm	600	600
Rated Payload	kg	50	
No-load Moving Mass	kg	80	10
Max Acceleration	m/s ²	20	20
Max Velocity	m/s	2	2
Motor Model	-	2 × AKM100-B4	AJM100-B4
Continuous Force	N	2 × 722	446
Peak Force	N	2 × 1610	1409
Encoder Resolution	μm	0.05/0.5/SINCOS	0.05/0.5/SINCOS
Minimal Step Size	μm	0.5	0.5
Bidirectional Repeatability	μm	±2	±1.5
Accuracy	μm	±10.0	±10.0
Straightness	μm	±10.0	±10.0
Flatness	μm	±10.0	±10.0
Yaw	arc-sec	±10.0	±10.0
Pitch	arc-sec	±10.0	±10.0
Orthogonality	arc-sec	10.0	
No-load Stage Weight	kg	635	

- Note:
- The table above presents the highest capability of this stage layout.
 - Contact us for more options and details.

Dimension Drawing



Ordering Part Number (OPN)

G3 H 02 02 K03 J03 E73 1 A 2

Model:

G3: VRG-III

Termination:

2: DSUB
3: M23

Gantry Config:¹

H: H-Gantry
J: J-Gantry
T: T-Gantry

Cable Length:

A: 0.5m
B: 3.0m

Lower Axis Stroke:²

02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm

Scale Type:

1: Steel tape, 11ppm/K

Upper Axis Stroke:²

02: 200mm
03: 300mm
04: 400mm
05: 500mm
06: 600mm
07: 700mm
08: 800mm

Encoder Type:

E73: ABA50E EnDat2.2 (0.05μm)
E71: ABA50M Mitsubishi (0.05μm)
EBF: Quantic (0.5μm)
EBH: Quantic (0.1μm)
E9F: ABI51D (0.5μm)
E9H: ABI51D (0.1μm)
EA0: ABI52 (SINCOS)

Lower Axis Motor:

K03: AKM30-B2-J (Peak Force: 483.2N)
K04: AKM30-B2-K (Peak Force: 483.2N)
K05: AKM30-B4-J (Peak Force: 966.3N)
K06: AKM30-B4-K (Peak Force: 966.3N)
K22: AKM50-B2-J (Peak Force: 805.3N)
K23: AKM50-B2-K (Peak Force: 805.3N)
K24: AKM50-B4-J (Peak Force: 1610.5N)
K25: AKM50-B4-K (Peak Force: 1610.5N)
K42: AKM100-B2-J (Peak Force: 1610.5N)
K43: AKM100-B2-K (Peak Force: 1610.5N)
K44: AKM100-B4-J (Peak Force: 3221.1N)
K45: AKM100-B4-K (Peak Force: 3221.1N)

Upper Axis Motor:

J03: AJM30-B4-J (Peak Force: 429.4N)
J04: AJM30-B4-K (Peak Force: 429.4N)
J30: AJM80-B2-J (Peak Force: 550.2N)
J31: AJM80-B2-K (Peak Force: 550.2N)
J45: AJM100-B2-J (Peak Force: 704.5N)
J46: AJM100-B2-K (Peak Force: 704.5N)
J47: AJM100-B4-J (Peak Force: 1409.1N)
J48: AJM100-B4-K (Peak Force: 1409.1N)

Note:

- ¹ All gantry stages are black anodized. Gantry Configuration: H= Dual motor dual encoder, J= Dual motor single encoder, T= Single motor single encoder.
- ² Standard stroke in intervals of 100mm only, for more options, please contact Akribis sales engineers.

