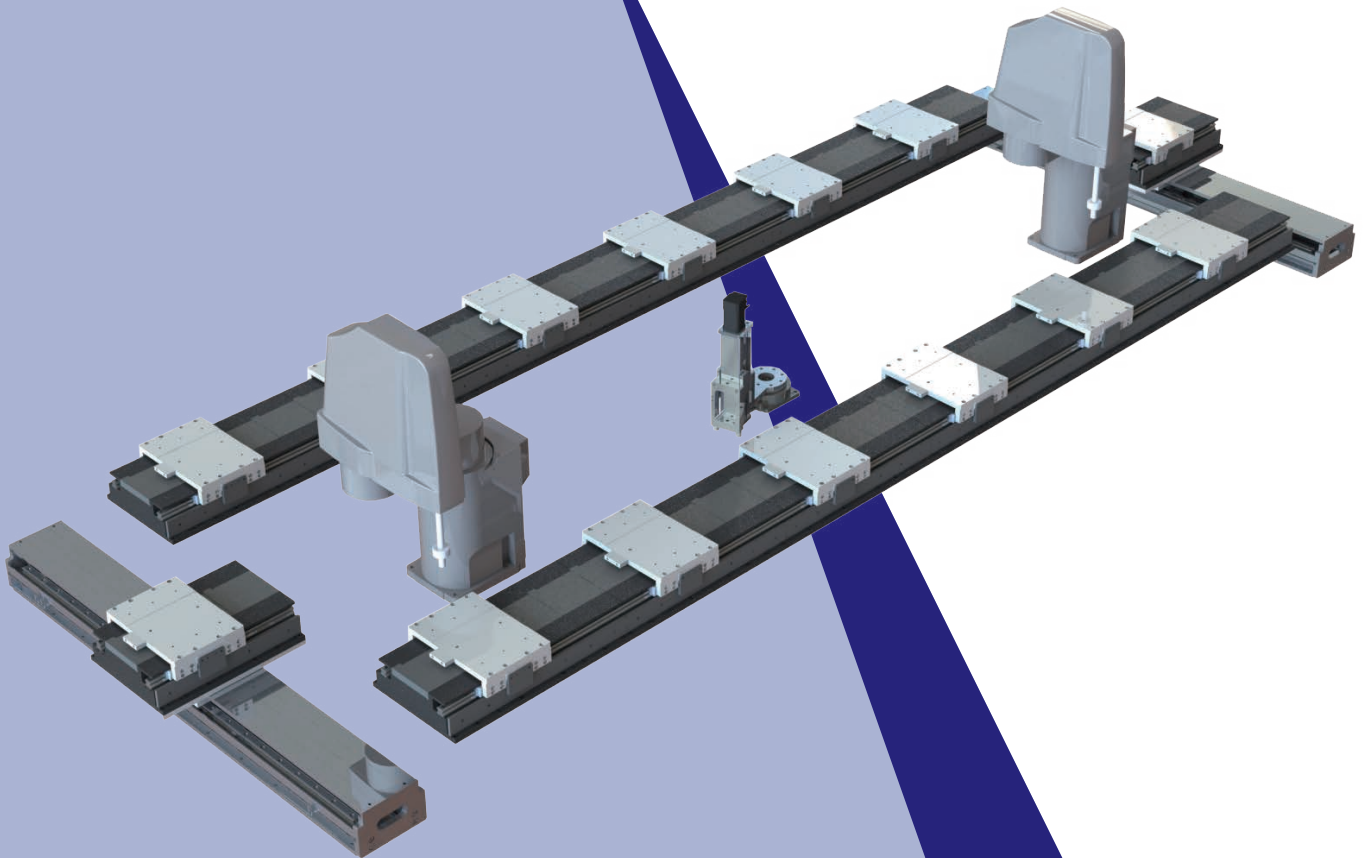


DIRECT DRIVE CONVEYORS

PROVIDE ASSISTANCE
FOR FLEXIBLE PRODUCTION



where precision matters



Akribis is a Latinized Greek word that means “Precision”. On the Akribis logo, the letter “a” is formed by a line and a circle, representing linear and rotary motions. These are supported by a tetrahedron structure, the same structure as the diamond crystal which has many exceptional physical properties.

The logo signifies that Akribis Systems’ sound engineering expertise is the basis of the company’ s foundation, and this enables us to provide customers with precise, direct drive motion control solutions.

Akribis Systems Pte Ltd was founded in 2004. We design and manufacture direct drive motors, stages and precision systems that are used in equipment for manufacturing, inspection and testing. Akribis Systems supports a wide range of industries including semiconductor, solar, flat panel, hard disk, LED, printed circuit board, printing, photonics and biomedical manufacturing.

From the beginning, the company has been focusing on innovation and development of new technologies and solutions in motion control, with more than 120 patents applied. Backed by a very strong and committed engineering team, the company continues to develop custom motors and systems for the most demanding applications.

We have manufacturing facilities in Singapore and in Shanghai, Nantong and Dongguan, China and in Selangor, Malaysia and in Siheung, Korea. Our sales network includes our sales offices in USA, Germany, South Korea, Japan, Thailand, Israel and Malaysia, and is reinforced by our comprehensive distribution channels in Asia, Europe and North America.



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Introduction	04
Linear Conveyor System	07
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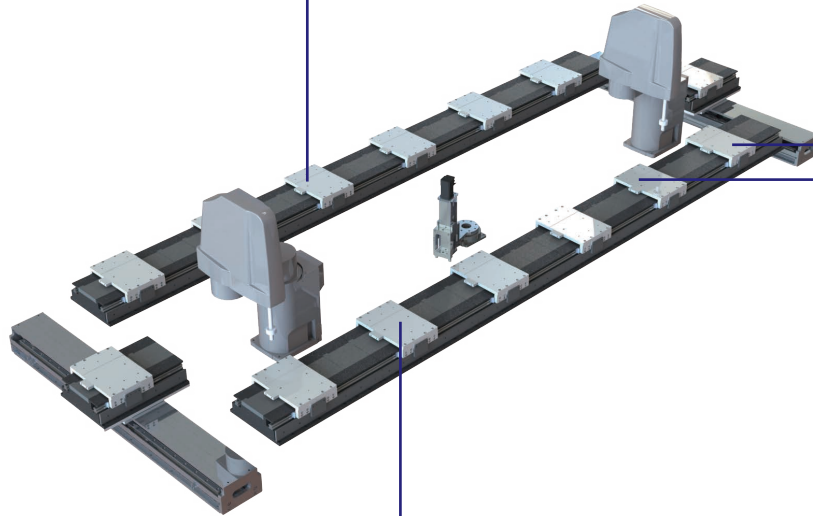
Intelligent Direct Drive Conveyor System

Independent Control

Movers can move independently, adapting to the rhythm of your production stations. This allows for more flexibility.

High Dynamic Performance

The maximum speed is at 2m/s with the top acceleration at 2g. This allows for an increase in your production line capacity.



Repeatability

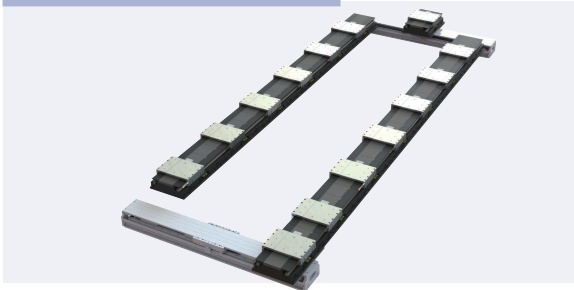
With $\pm 10\mu\text{m}$ on repeatability, the conventional positioning mechanism can be replaced. This saves on installation space.

Multi Axis Linkage

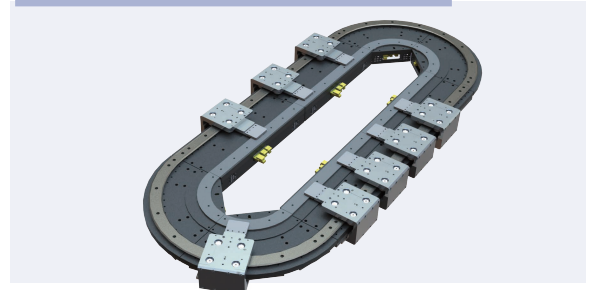
- Accurate transmission and process integration is well achieved by the linkage of the multi axis of the station processing mechanism.

Multiple Forms

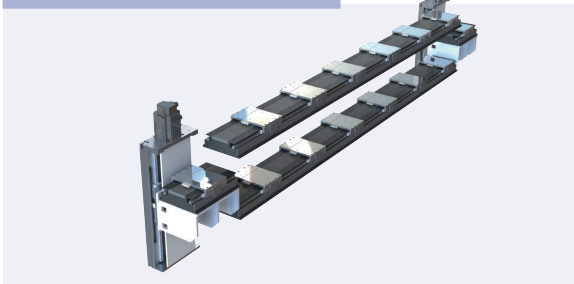
Horizontal Conveyor



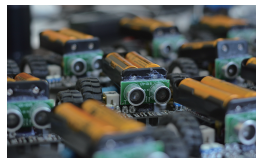
Oval Loop Conveyor System



Vertical Conveyor

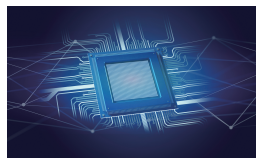


Applications



Lithium Battery

Automobile Assembly



Semiconductors

Applications

Biomedical



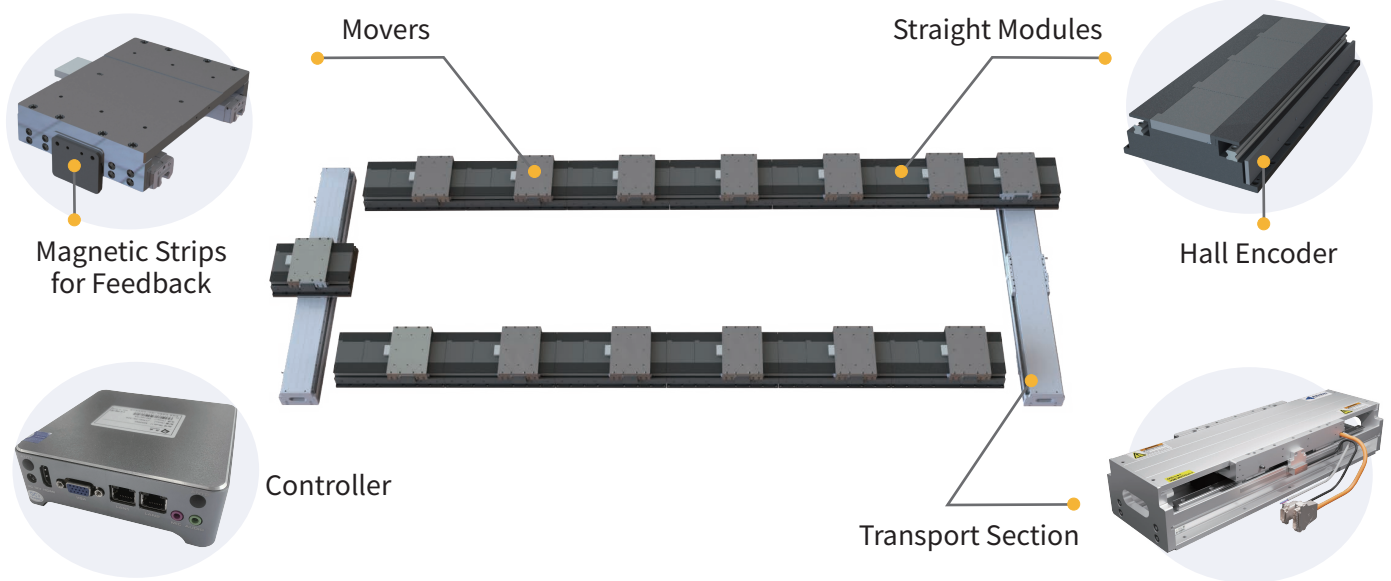
Advanced Logistics Solutions

Computer, Communication and Consumer Electronics

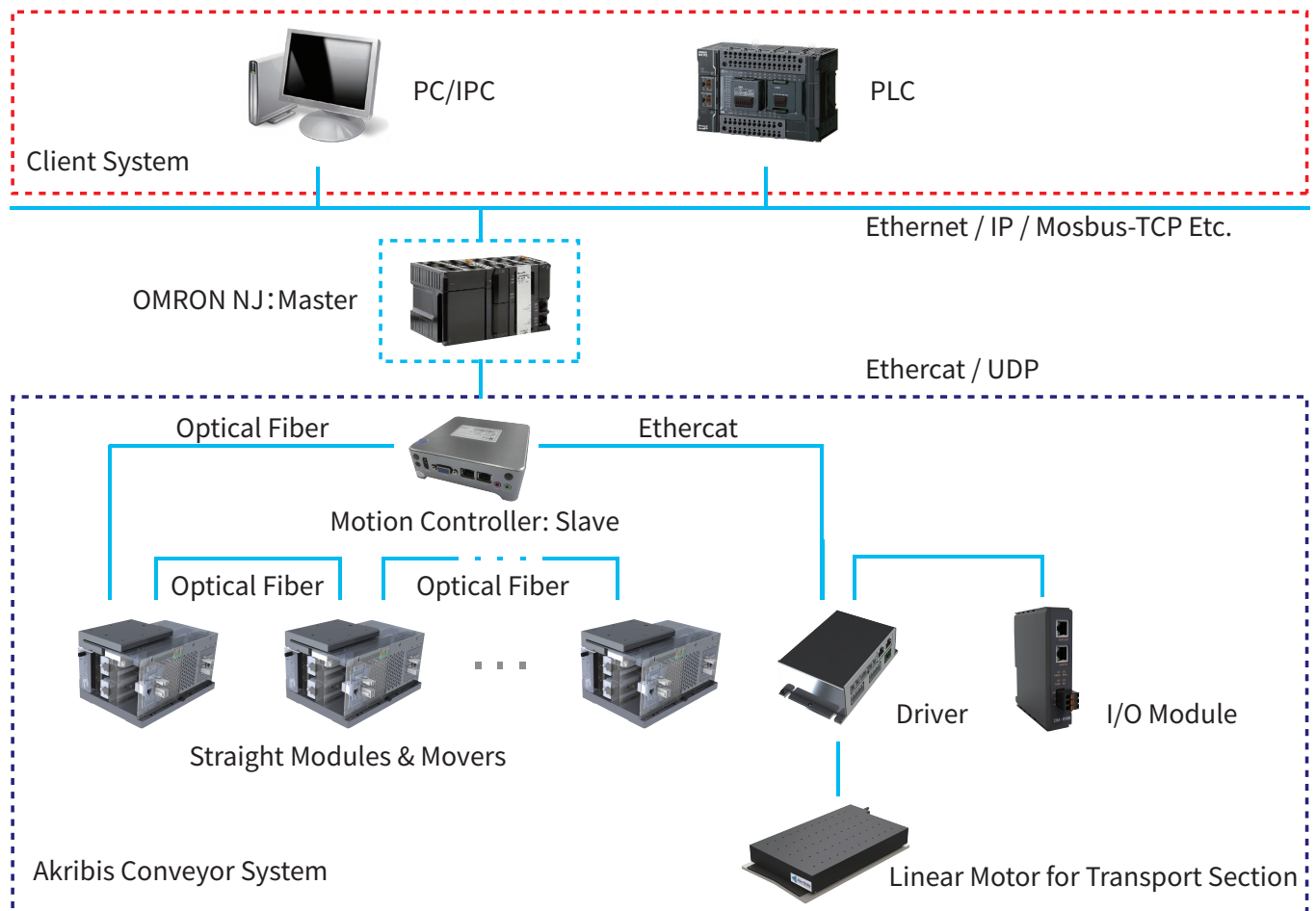


Introduction

Main Components



Electrical Topology Diagram

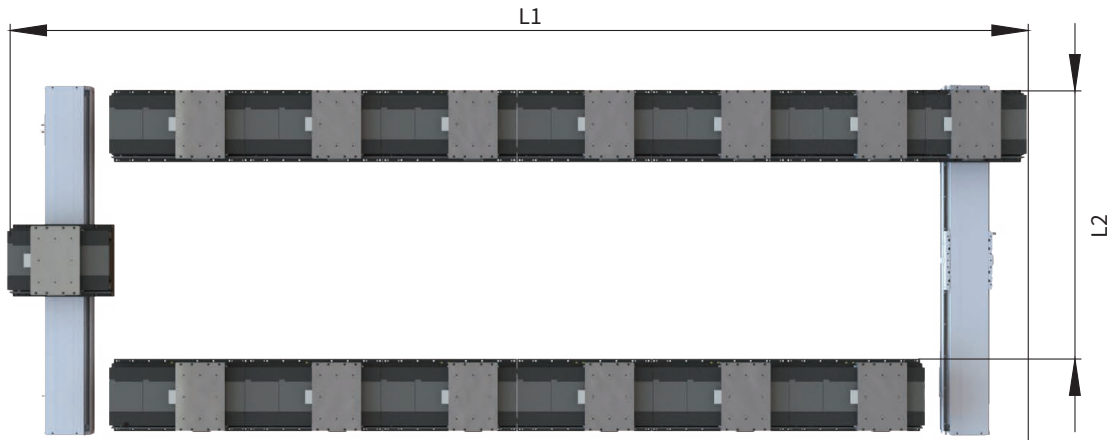


Specifications

	Unit	ADC120	ADC270
Peak Force	N	573	573
Max. Load	kg	40	40
Max. Speed	m/s	2	2
Repeatability	μm	±10	±10
Max. Connecting Stroke	m	500	500
Max. Number of Movers	Pcs	250	250
Min. Center Distance between Two Movers	mm	250	250
Straight Modules Length	mm	375/500	375/500
Min. Length of Mover	mm	140	180
Mover Mass	kg	3.5	3.5
Input Voltage	Vdc	48	48
Usage Temperature	°C	10 ~ 50	10 ~ 50
Usage Humidity	-	35% ~ 85%RH (No Condensation)	35% ~ 85%RH (No Condensation)

Note:
 • There are multiple options for movers thrust, please consult Akribis sales for details.

Ordering Part Number (OPN)



ADC120-A1-XXX-XXX-XX-N

Model:

ADC120/ADC270

Number of Movers:

N

Layout Form:

A: Means horizontal loop layout
 B: Means vertical loop layout

Model of Movers:

M1 corresponds to a mover with 1 times the thrust,
 M2 to a mover with 2 times the thrust, and so on.

Convey Stroke:

L2: Convey Stroke in mm

Re-circulation Method:

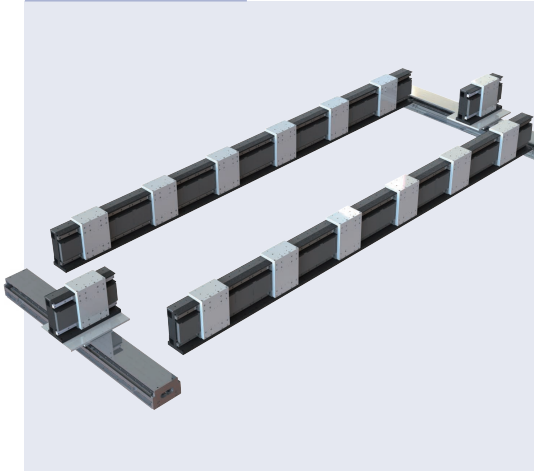
1: Means standard re-circulation method
 2: Means linear module re-circulation method
 3: Means belt re-circulation method

Total length:

L1: Total length (Multiple of 125mm)

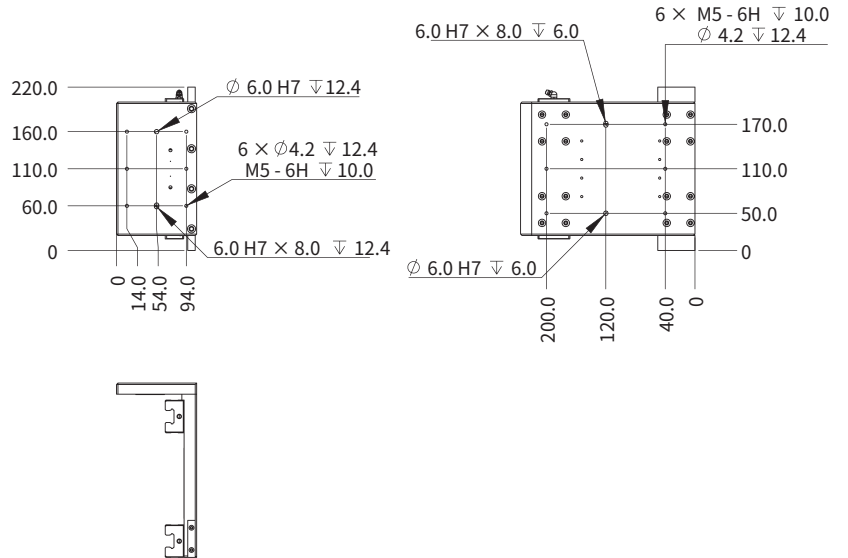
Linear Conveyor System

ADC120



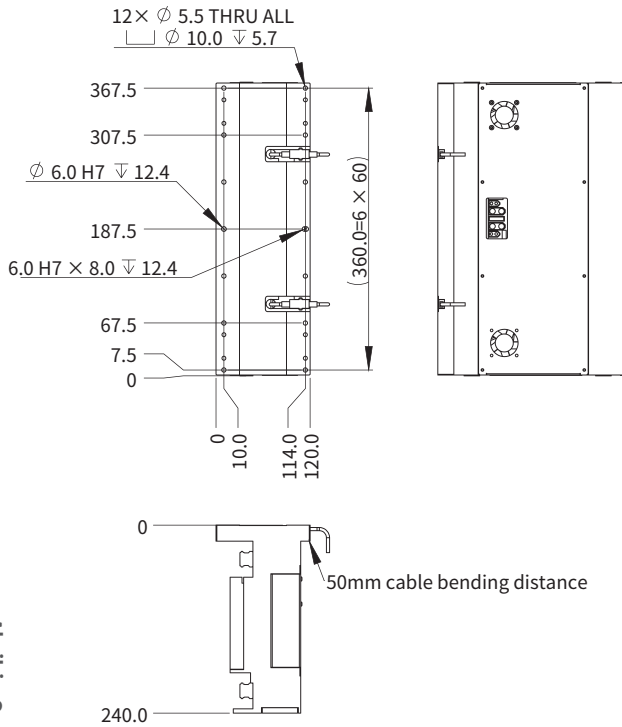
Movers

VM180 Dimensional Drawing

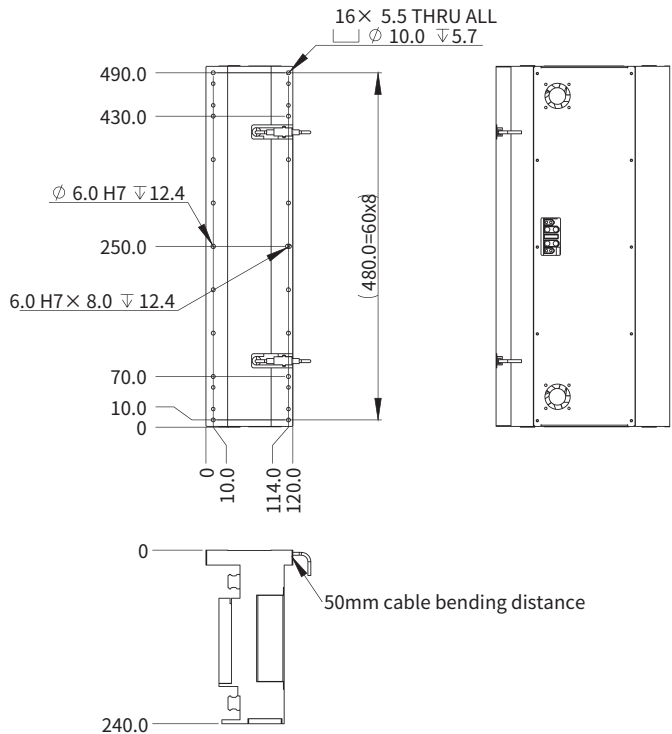


Straight Modules

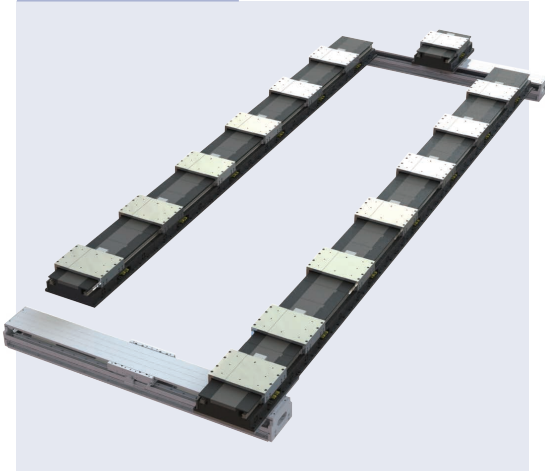
VCL375 Dimensional Drawing



VCL500 Dimensional Drawing

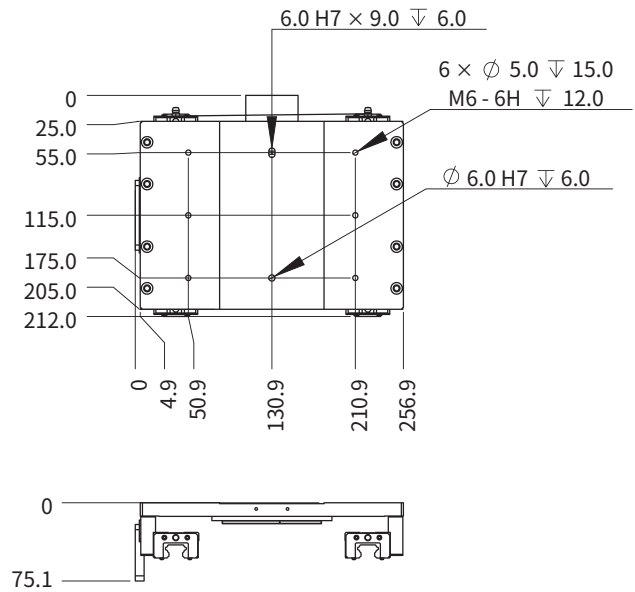


ADC270



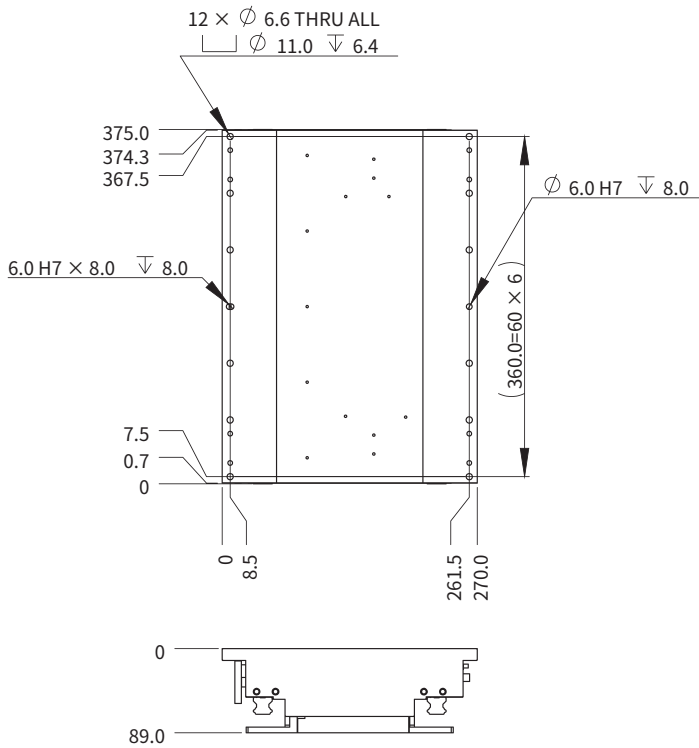
Movers

HM180 Dimensional Drawing

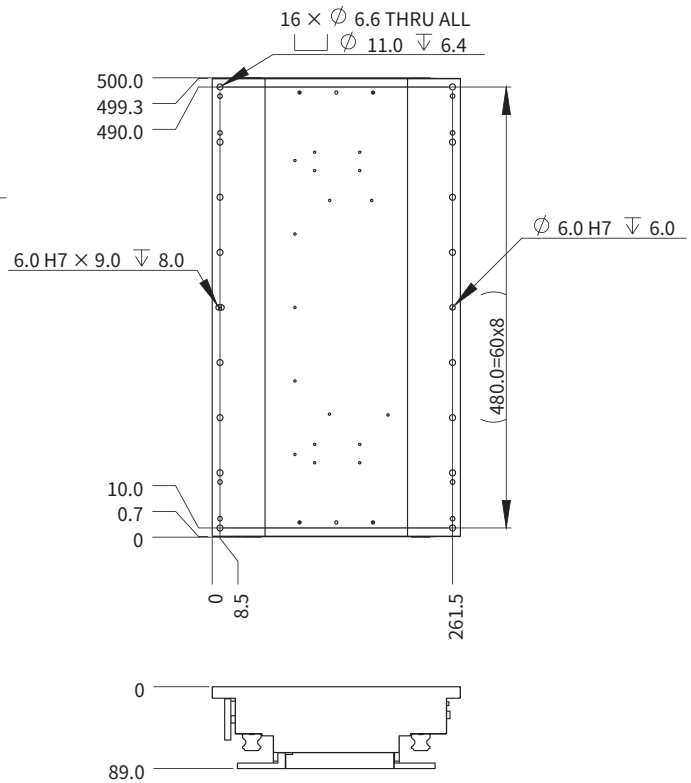


Straight Modules

HCL375 Dimensional Drawing



HCL500 Dimensional Drawing



Oval Loop Conveyor System

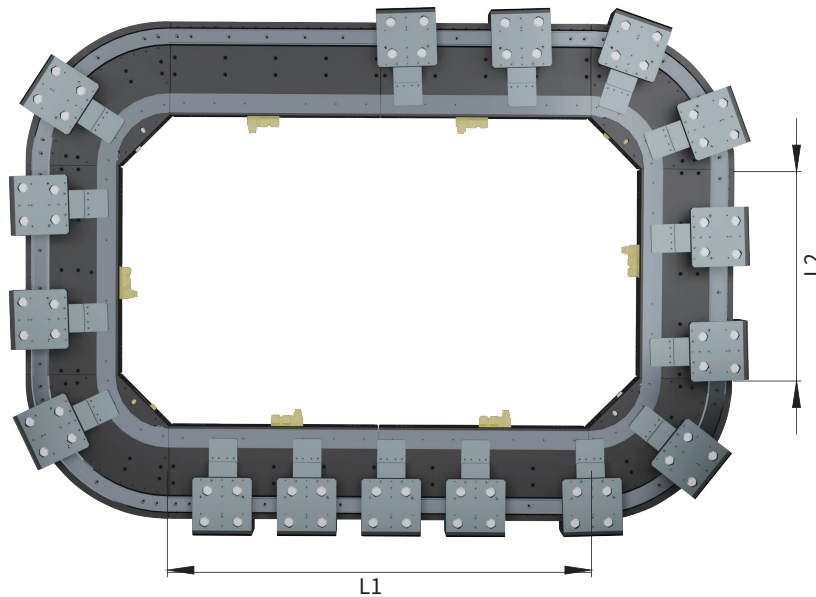
Specifications

	Unit	ADC220
Peak Force	N	332
Max. Load	kg	40
Max. Speed	m/s	3
Repeatability	μm	±30
Max. Connecting Stroke	m	500
Max. Number of Movers	Pcs	250
Min. Center Distance between Two Movers	mm	250
Straight Modules Length	mm	375/500
Min. Length of Mover	mm	140
Mover Mass	kg	3
Input Voltage	Vdc	48
Usage Temperature	°C	10 ~ 50
Usage Humidity	-	35% ~ 85%RH (No Condensation)

Note:

- The peak force of the mover can be doubled by extending the magnet. For specific information, please consult Akribis sales.

Ordering Part Number (OPN)



ADC220-XXX-XXX-M1-N

Model:

ADC220: Oval loop conveyor system

Number of Movers:

N

Model of Movers:

M1

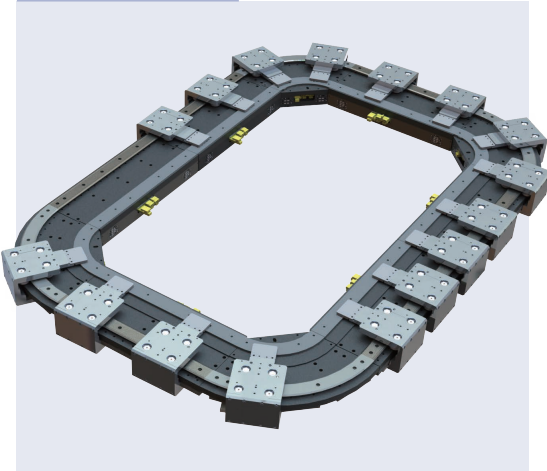
Length of Long Side Working Section:

L1

Length of Short Side Working Section:

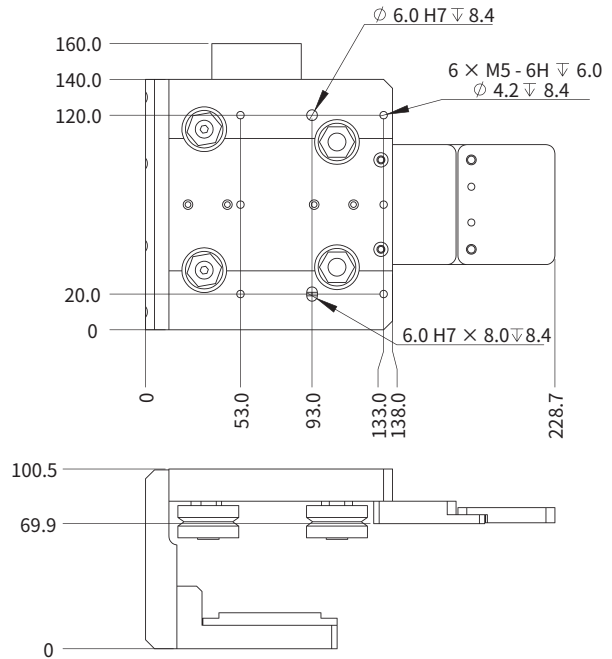
L2

ADC220



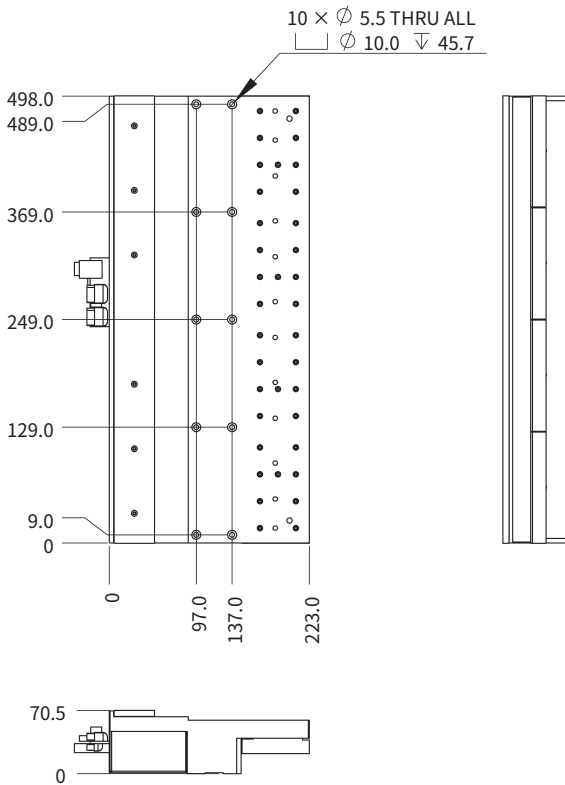
Movers

M140 Dimensional Drawing

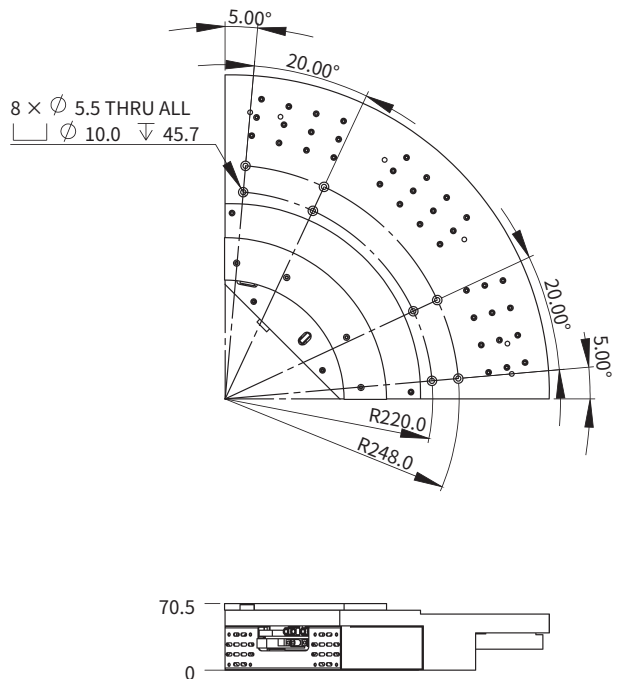


Straight Modules

SCL500 Dimensional Drawing



SCL90 Dimensional Drawing



Electrical Box

Combination Electrical Box

Akribis customizes combination electrical box for Conveyor system, including control box and power boxes. The electrical control box and power boxes can be overlay assembly, making assembly convenient and fast, saving space.

Control Box: ADC-CB



Built in:

- Motion controller of Conveyor system: ADC-C1
- Drivers for the module of the ferry section on both sides (Conveyor)

Power Box: ADC-PB



Built in:

- 3000W power module, multiple power boxes can be stacked together

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