

# Kardex Megamat 650 Vertical Carousel Modules (VCM) 12' 4.6" W x 4' 11.5" D x 22' 1.2" H - 29 Carrier - Heavy Duty Shallow Depth Storage System

Customer Technical Spec Sheet | Model / SKU: Kardex Megamat 650.2.3050.5.406.29

This customer spec sheet summarizes the configured Kardex Megamat 650 Vertical Carousel Module. The unit is configured as a heavy duty goods-to-person storage system with 29 carriers and an overall size of 12' 4.6" W x 4' 11.5" D x 22' 1.2" H.

## Configuration Summary

Configured Product Overview	
<b>Series</b>	Megamat 650
<b>Duty Class</b>	Heavy Duty
<b>Depth Configuration</b>	Shallow Depth
<b>Number of Carriers</b>	29
<b>Overall Unit Width</b>	12 ft - 4.7 in. (3775 mm)
<b>Overall Unit Depth</b>	4 ft - 11.5 in. (1511 mm)
<b>Overall Unit Height</b>	22 ft - 1.2 in. (6735 mm)
<b>Carrier Capacity (max)</b>	1433 lbs. (650 kg.) : 82.7 lbs./ft <sup>2</sup>
<b>Carrier Capacity (avg)</b>	1209 lbs. (549 kg.) : 69.8 lbs./ft <sup>2</sup>
<b>Average Carrier Payload</b>	1190 lbs. (540 kg.)
<b>Carrier Pitch</b>	16 in. (406 mm)
<b>Carrier Clear Height</b>	13.7 in. (348 mm)
<b>Carrier Clear Width</b>	120.1 in. (3050 mm)
<b>Carrier Clear Depth</b>	20.8 in. (528 mm)
<b>Carrier Surface Clear Depth</b>	20.7 in. (526 mm) due to 2mm deep front lip

## Overall Unit Specifications

Dimensions, weights, load, and installation	
<b>Minimum Room Height for Installation</b>	22 ft - 3.2 in. (6785 mm)
<b>Minimum Unit Clearance in Recess</b>	1.97 in. (50mm)
<b>Overall Depth Note</b>	Excludes 12.6 in. (320 mm) deep Work Counter
<b>Storage Area per Unit</b>	641 ft <sup>2</sup> (59.58 m <sup>2</sup> )
<b>Cubic Storage per Unit</b>	573.5 ft <sup>3</sup> (16.25 m <sup>3</sup> )
<b>Right End Frame Weight</b>	3228 lb. (1464 kg)
<b>Left End Frame Weight</b>	2639 lb. (1197 kg)
<b>Unit Weight (Empty)</b>	12493 lb. (5667 kg)

<b>Permissible Total Unit Weight</b>	47024 lb. (21330 kg)
<b>Average Floor Load</b>	5.31 lbs. /in. <sup>2</sup> (3739 kg. /m <sup>2</sup> )
<b>Supporting Contact Surface</b>	600cm <sup>2</sup> (see "Layout Diagram") = 60000mm <sup>2</sup>
<b>Configured Surface Pressure</b>	3.487 N/mm <sup>2</sup>
<b>Maximum Imbalance Load</b>	4630 lb. (2100 kg.)
<b>Cycle Speed</b>	4.92 in./sec.
<b>Access Time</b>	23.58 s (1/4 Revolution)

## Power and Controls

### Electrical and control details

<b>Power Supply</b>	3/PE 208V (50/60 Hz)
<b>Rated Operating Current</b>	22.9 A
<b>Fuse Protection</b>	30 A t
<b>Motor Power</b>	5.2 HP ; 3.8 kW
<b>Power Consumption, max.</b>	8.25 kVA
<b>Control Generation</b>	B&R X20 -- TIC (Total Intelligence Concept)
<b>Controller Location</b>	Right-Hand End Frame
<b>E-Stop</b>	E-Stop Location: (1) per Side Panel (2 Total)
<b>Controller</b>	OPTIC 12
<b>Virtual Site Control License</b>	Yes
<b>Not Included</b>	Communication Cable - Cat5 or Cat6 cable

Network Interface, Host communication ILA/T3, Weight Management, User Management, Web Browser access and Ergonomics

Interface for fire detection (alarm system and warning sound provided by customer when applicable)

## Access Opening Specifications

### Operator access area

<b>Work Counter</b>	Table Height: 1000 mm (39.37 in.)
<b>Work Counter Details</b>	Stainless Steel (w/colored cover) / Fixed Work Counter; Max. Load 150 kg.
<b>Door Type</b>	Manual Door
<b>Door Details</b>	Adds 320mm (12.6 in.) to overall unit depth
<b>Access Included</b>	Included: Confirmation Bar (under work counter)
<b>Navigator / Interface</b>	without Legacy Interface
<b>Front Light</b>	Front Light: LED Lamps

## Construction and Finish

### Construction materials and finish colors

<b>Material</b>	Steel
<b>Core Material</b>	Galvanized or ESD Galvanized Steel
<b>Panel Color</b>	RAL 7035 LIGHT GREY
<b>Door / Under Table Color</b>	RAL 230/60/15 Silver Fir Blue
<b>Corner Profiles Color</b>	RAL 7035 Light Grey
<b>Cover Above Access Color</b>	RAL 9016 Traffic White
<b>Access Side Covers Color</b>	RAL 7016 Anthracite Grey

## Thermal and Operating Data

### Heat dissipation information

<b>Heat Dissipation Control Cabinet</b>	130W
<b>Heat Dissipation Brake Resistor</b>	1000W (50% brake mode) -> 500W
<b>Heat Dissipation Motor</b>	760W (3.8kW motor, 20%)
<b>Complete Heat Dissipation / Machine</b>	1390W

## Carrier Details

### Carrier configuration

<b>Carriers per Unit</b>	(29) Multipurpose Carriers
<b>Carrier Pitch</b>	16 in. (406 mm)
<b>Carrier Clear Height</b>	13.7 in. (348 mm)
<b>Carrier Includes</b>	0.31 in. (8 mm) tall front lip
<b>Carrier Clear Width</b>	120.1 in. (3050 mm)
<b>Carrier Clear Depth</b>	20.8 in. (528 mm)
<b>Carrier Surface Clear Depth</b>	20.7 in. (526 mm) due to 2mm deep front lip
<b>Carrier Capacity (max)</b>	1433 lbs. (650 kg.) : 82.7 lbs./ft <sup>2</sup>
<b>Carrier Capacity (avg)</b>	1209 lbs. (549 kg.) : 69.8 lbs./ft <sup>2</sup>
<b>Average Carrier Payload</b>	1190 lbs. (540 kg.)
<b>Maximum Number of Cycles</b>	570197.5 - (Based on average carrier payload usage at 50% = 595 lbs. (270 kg.))

## Configured Shelf Details

8 of total 29 Carriers include the following shelf configurations:

<b>Shelf Configuration 1</b>	Qty 8 - (1) Non-Reinforced Shelf and (7) Supports [6.59 in.▼, 6.67 in.▲] Clear depth: 20.67
<b>Capacity per Level 1</b>	Capacity Per Level: 681 lb (max) / 569.7 lb (avg) : 39.4 lb/ft <sup>2</sup> (max) ; 32.9 lb/ft <sup>2</sup> (avg)

See capacity /shelf level below, as capacity is downrated due to weight of shelf in carrier