

Kardex Megamat 650 Vertical Carousel Modules (VCM) 13' 0.5" W x 5' 7.4" D x 32' 4.2" H - 44 Carrier - Heavy Duty Storage System

Customer Technical Spec Sheet | Model / SKU: Kardex Megamat 650.2.3250.6.406.44

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 44 carriers and an overall size of 13' 0.5" W x 5' 7.4" D x 32' 4.2" H.

Configuration Summary

Configured Product Overview	
Series	Megamat 650
Duty Class	Heavy Duty
Depth Configuration	Standard Depth
Number of Carriers	44
Overall Unit Width	13 ft - 0.5 in. (3975 mm)
Overall Unit Depth	5 ft - 7.4 in. (1711 mm)
Overall Unit Height	32 ft - 4.2 in. (9860 mm)
Carrier Capacity (max)	1433 lbs. (650 kg.) : 65.2 lbs./ft ²
Carrier Capacity (avg)	687 lbs. (312 kg.) : 31.3 lbs./ft ²
Average Carrier Payload	672 lbs. (305 kg.)
Carrier Pitch	16 in. (406 mm)
Carrier Clear Height	13.7 in. (348 mm)
Carrier Clear Width	128 in. (3250 mm)
Carrier Clear Depth	24.7 in. (628 mm)
Carrier Surface Clear Depth	24.6 in. (626 mm) due to 2mm deep front lip

Overall Unit Specifications

Dimensions, weights, load, and installation	
Minimum Room Height for Installation	32 ft - 6.2 in. (9910 mm)
Minimum Unit Clearance in Recess	1.97 in. (50mm)
Overall Depth Note	Excludes 12.6 in. (320 mm) deep Work Counter
Storage Area per Unit	1141.8 ft ² (106.13 m ²)
Cubic Storage per Unit	1102.8 ft ³ (31.25 m ³)
Right End Frame Weight	4464 lb. (2025 kg)
Left End Frame Weight	3651 lb. (1656 kg)
Unit Weight (Empty)	18904 lb. (8575 kg)

Permissible Total Unit Weight	48468 lb. (21985 kg)
Average Floor Load	4.59 lbs. /in. ² (3233 kg. /m ²)
Supporting Contact Surface	600cm ² (see "Layout Diagram") = 60000mm ²
Configured Surface Pressure	3.595 N/mm ²
Maximum Imbalance Load	4630 lb. (2100 kg.)
Cycle Speed	4.92 in./sec.
Access Time	35.77 s (1/4 Revolution)

Power and Controls

Electrical and control details

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

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

Construction and Finish

Construction materials and finish colors

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

Thermal and Operating Data

Heat dissipation information

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

Carrier Details

Carrier configuration

Carriers per Unit	(44) Multipurpose Carriers
Carrier Pitch	16 in. (406 mm)
Carrier Clear Height	13.7 in. (348 mm)
Carrier Includes	0.31 in. (8 mm) tall front lip
Carrier Clear Width	128 in. (3250 mm)
Carrier Clear Depth	24.7 in. (628 mm)
Carrier Surface Clear Depth	24.6 in. (626 mm) due to 2mm deep front lip
Carrier Capacity (max)	1433 lbs. (650 kg.) : 65.2 lbs./ft ²
Carrier Capacity (avg)	687 lbs. (312 kg.) : 31.3 lbs./ft ²
Average Carrier Payload	672 lbs. (305 kg.)
Maximum Number of Cycles	503010 - (Based on average carrier payload usage at 50% = 336 lbs. (152.5 kg.))

Configured Shelf Details

8 of total 44 Carriers include the following shelf configurations:

Shelf Configuration 1	Qty 8 - (1) Non-Reinforced Shelf and (7) Supports [6.59 in.▼, 6.67 in.▲] Clear depth: 24.61
Capacity per Level 1	Capacity Per Level: 672.5 lb (max) / 300.1 lb (avg) : 30.6 lb/ft ² (max) ; 13.6 lb/ft ² (avg)

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