

Technical Specifications

Product Name	CarouselAI™
Model Name (Per CE Declaration)	RPC (Robotic Pick Cell) Pick Release
Region	USA & Europe
Manufacturer	AutoStore AS
Dimensions	L: 2,900 mm / W: 2,300 mm / H: 2,500 mm
Weight	1,300 kg
Floor Requirements	<ul style="list-style-type: none"> • Max. point loads during operation (robot arm): 2500 N (distributed over 0,020 m2) • Max. point load during emergency stop: 5700 N (distributed over 0,020 m2)
Average Weight Distribution	100 kg/m²
Min. Foundation Material Yield Strength	150 MPa
Floor Flatness Requirement (Robot Arm)	0.1 / 500 mm
Min. Resonance Frequency	22 Hz
Inbound Container Specifications	AutoStore Bin (220, 330, and 425 mm) presented through CarouselPort™
Inbound Container Subdivisions	Up to 16
Outbound Container Type	Plastic tote and corrugate box
Outbound Container Subdivisions	2, 4
Max. Outbound Container Weight Including Bin	20 kg
Max. Packing Fullness	Up to 80% typical; varies with item size
Takeaway Mechanism	Top of Roller: 600 mm – 835 mm and top of outbound container not to exceed 1,020 mm from floor
Picking Accuracy	99+%
Max. Picking Throughput	At floor level: 650 UPH
Min. Item Picking Cycle Time	5 seconds
Min. AutoStore Bin Exchange Time	2.5 seconds
Item Eligibility	<ul style="list-style-type: none"> • 95% coverage across apparel, grocery, general merchandise, industrial, and pharma • Eligible for SKUs where 3+ units fit in one AutoStore Bin • Max. weight: 5 kg
Item Weight & Dimensions	<p>Recommended*</p> <p>* CarouselAI can use Weight Learning if the item weight is not provided, and it can transfer without size data. Performance is not specified while Weight Learning takes place</p>
Acceptable Item Types	<ul style="list-style-type: none"> • Securely closed bags, boxes, bottles, blister packs, clamshells, envelopes, tubes • Cardboard or other boxes that are taped closed, have interlocking tabs or otherwise, secured lids • Securely grouped multipacks of the above • Grooved and uneven surface items • Porous items
Unacceptable Item Types	<ul style="list-style-type: none"> • Fragile glass items (e.g., candles, unless reasonably packaged against damage) • Items with exposed wires or hooks • Sharp, dangerous, or hazardous items • Nestable items • Thin unbagged apparel • Aerosols • Loose fastener
Storage Temperature	-25°C to +55°C
Operating Temperature	+2°C to +40°C
Operating Humidity	40 to 90 % non-condensing
Noise Level	70 dBA at 3 m
Power Requirements	<p>Robot arm & vacuum unit:</p> <ul style="list-style-type: none"> • 380-415 VAC, 25 A, 3 PH, 3 P+N+PE, 50/60 Hz • 200-240 VAC, 40 A, 3 PH, 3 P+N+PE, 50/60 Hz
Power Consumption	<ul style="list-style-type: none"> • Idle: 0.6 kW • Average active: 4.3 kW • Peak: 6.6 kW
Electrical Power Feed	Handwired
Bandwidth Requirements	20 Mbps symmetric bandwidth in dedicated WAN circuit, up to 5 RPC systems; not real time production requirement
BG VPN Access	IPSEC tunnel with BG equipment (over dedicated WAN circuit)
Server Room Requirements (Only Required for More Than 2 Cells)	<ul style="list-style-type: none"> • Space for Server Rack: L: 1,070 mm / W: 600 mm / H: 1,991 mm; rack and server(s) provided by Berkshire Grey • Server Power Requirements: 200-240 VAC, 15 A, 1 PH, 50/60 Hz; UPS back up
Physical Network Connections	<ul style="list-style-type: none"> • Wired connection from server to cell(s), customer provided: Cat 6 A copper acceptable for distances <90 m • Single mode fiber with LC connector required for distances >90 m • Intermediate Distribution Frame (IDF) available • Physical network design depends on site layout; to be reviewed jointly with customer
WMS / WES Connection	<ul style="list-style-type: none"> • Two (2) 1000 BaseT uplinks to customer network • Two (2) IP addresses on customer network for WMS/WES communications
Host System Integration	API standard; other integrations available
Compliant To	ANSI B11.19, ANSI B11.20, ANSI/ASME B20.1, ANSI/ASSE Z244.1, ANSI/RIA 15.06, NFPA70 and NFPA 70E, NFPA 79, OSHA 29 CFR 1910, UL-508A, ISO 10218-1:2011, ISO 10218-2:2011, ISO 12100:2010, ISO 13850:2015, ISO 13855, ISO 14118:2018, ISO 14119:2013, ISO14120:2015, ISO 13732-1:2008, ISO 13849-1 & 2:2015, EN 60204-1:2018, JIS B 9960-1:2019, JIS C 8201-1:2020, EN 61439-2, IEC 60364, EN 61000-6-2, -3 and -4

