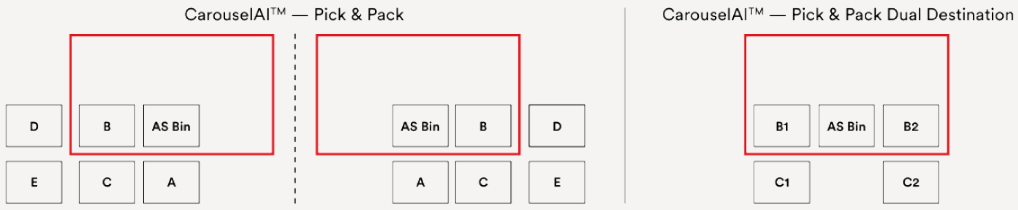
AutoStore

Technical Specifications

Product Name	CarouselAI™
Model Name (Per CE Declaration)	RPC (Robotic Pick Cell) Pick Release
Region	Europe & North America
Manufacturer	AutoStore AS
Dimensions	L: 2,900 mm / W: 2,300 mm / H: 2,500 mm
Weight	1,300 kg
Floor Requirements	• 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	5.5 seconds
Min. AutoStore Bin Exchange Time	2.5 seconds
Item Eligibility	• 95% coverage across apparel, grocery, general merchandise, industrial, and pharma • Eligible for SKUs where 3+ units fit in one AutoStore Bin • Max. weight: 6 kg
Item Weight & Dimensions	Recommended* * 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
Acceptable Item Types	• 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	• 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	Robot arm & vacuum unit: • 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	• 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)	• 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	• 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	• 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