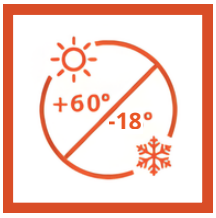
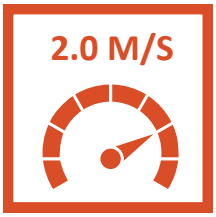
AMTR Freeze 1

High-speed self-repairing door designed for freezer environments requiring high thermal insulation and stable low-temperature performance.

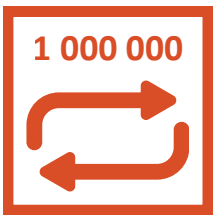
- Designed for freezer and low-temperature applications (-18°C to +10°C)
- High-performance insulated curtain (18 mm total thickness, U = 1.9 W/m²K)
- Self-repairing curtain system minimizing downtime after impact
- Opening speed up to 2.0 m/s
- Reliable operation in environments with low humidity (<30%)
- Suitable for indoor and outdoor installation
- Wind resistance up to Class 3 (EN 12424)
- Inverter-controlled drive system with smooth operation
- Integrated safety system with IP67 multibeam light barrier



THERMAL INSULATION



OPENING SPEED UP TO 2.0 M/S



UP TO 1,000,000 CYCLES

General information

AMTR Freeze 1 is a high-speed self-repairing roll-up door developed for freezer and high-performance cold storage environments where maintaining **stable low temperatures** is critical. The door is suitable for both indoor and outdoor applications and is designed for use in food industry facilities, cold storage warehouses and temperature-controlled logistics areas.

The system is equipped with a **self-repairing curtain** that automatically reinserts into the side guides after accidental impact, ensuring uninterrupted operation and minimizing downtime. The door **curtain is built as a multi-layer structure combining PVC with a closed-cell elastomer insulation core,** achieving a total thickness of approximately 18 mm and a thermal insulation value of **U = 1.9 W/m²K.** This construction significantly reduces thermal exchange and supports stable temperature conditions inside the facility.

Powered by a **3-phase motor with active brake (IP55)** and controlled via an inverter-based system with **absolute encoder** positioning, the door ensures precise and reliable operation even in intensive working conditions. **Opening speeds of up to 2.0 m/s** allow efficient material flow, while adjustable closing speed improves safety and control.

With maximum dimensions of **4500 × 5000 mm** and **wind resistance up to Class 3** (EN 12424), AMTR Freeze 1 performs reliably in demanding industrial environments. A comprehensive set of safety features, including **IP67 multibeam barrier, anti-jamming sensor and emergency opening system,** ensures safe operation in daily use.

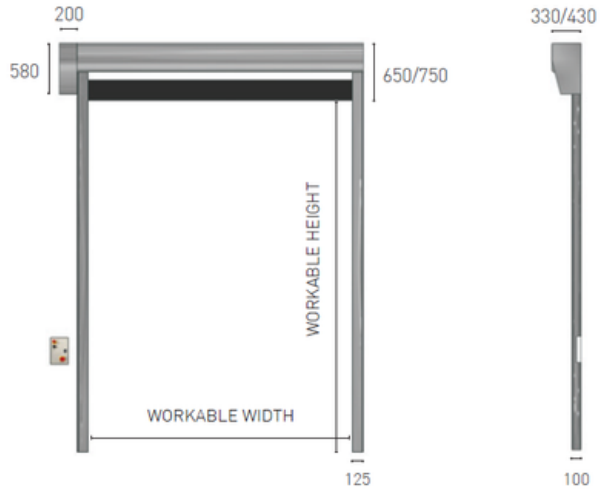
Standard Equipment

- Self-repairing insulated curtain (PVC + elastomer core, 18 mm total thickness)
- Inverter-based control system (230V logic board)
- Absolute encoder positioning
- 3-phase motor with active brake (IP55)
- Galvanised steel frame and roller
- IP55 control cabinet (powder-coated metal)
- IP67 multibeam safety light barrier
- Anti-jamming curtain sensor
- Reflective photocells for insulated curtain
- Safety photocells
- Emergency STOP push-button
- Manual emergency opening (release rod)
- Pre-wired plug & play system

Optional Equipment

- Stainless steel construction (AISI 304 / 316)
- IP66 stainless steel control cabinet
- PVC IP66 control cabinet
- Stainless steel roller (AISI 304)
- Powder-coated frame
- Microwave radar activation
- UPS emergency opening system
- Mechanical limit switches
- Custom logos on curtain
- Front motor position

Mounting space



TECHNICAL DATA

Application		inside/outside	
Maximum dimensions*		4500 L x 5000 H mm	clear opening width & height
Operating speed		opening closing	up to 2.0 m/sec 0.8 m/sec, adjustable
Wind resistance	EN 12424	4500 L x 5000 H mm	class 3
Range temperature		-18 °C to +10 °C	Relative Humidity < 30%
Frame	EN 12604	**galvanised steel** stainless steel AISI 304 or 316 powder coated	**standard** optional optional
Roller		**galvanised steel** stainless steel AISI 304	**standard** optional
Control cabinet		**IP55 metal, powder coated** IP66 stainless steel AISI 304-316 PVC IP66	**standard** optional optional
Motor position		**Lateral LH/RH** Frontal LH/RH	**standard** optional
Curtain fabric		Polyvinyl chloride (PVC)+ closed cell elastomer + Polyvinyl chloride (PVC)	standard 900 g/m2 thickness 0,9 mm + elastomer thickness 16 mm + standard 900 g/m2 thickness 0,9 mm TOT 18mm - U 1,9W/m2K
Windows		Not available	
Windows type		Not available	
Control system		230V with logic board with inverter	standard
Positioning system		**Absolute encoder** Mechanical limit switches	**standard** optional
Drive unit	EN 12604	3-phase motor with active brake, IP55	standard
Safety devices	EN 12453	**Probing sensor** **Multibeam barrier IP67** **Anti-jamming sensor** **Flashing light** Microwave radar	**standard** **standard** **standard** **standard** optional
Emergency opening		**Manual release rod** UPS	**standard** optional

*upon request, possibility of other dimensions

Curtain standard colours