dormakaba

Automatic swing door solutions

We make access in life **smart and secure**.

Product Brochure

Entrance solutions by dormakaba

Security. Sustainability. Reliability.

ED100 Operator

dormakaba defines security, sustainability and reliability. For more than 160 years, our brands have been associated with trust earned through superior performance and living up to our mission—to make access in life smart and secure. Holding true to this promise and to our values will help us achieve our ambition to be the trusted industry leader.

Our values

- Customer first
- Performance
- Trust

The commitment to develop innovative yet practical products is what differentiates dormakaba. Our automatic swing door operators are powerful examples of our dedication to providing solutions that perform as designed—throughout the life of your building.

Opening the door to a lifetime of service

Touchless access is crucial in high contact public places such as healthcare facilities, restaurants, schools, offices and restrooms. Your access system should not be a barrier to entry. Transition to contactless, barrier-free and user-friendly access to the entrance to:

- Minimize high frequency touchpoints
- Reduce the spread of germs
- Increase touchless access solutions

Our low energy operators are the perfect solution for barrier-free access applications. Operators can be used in new construction or retro-fit onto existing doors. dormakaba's swing doors are designed for high traffic and heavy-duty use. Self-learning microprocessor controls adjust swing door speed for smooth opening and closing. Automatics function in low-energy or full-power mode.

Complete customer service and project support

Smart design begins at dormakaba. Our consultants advise, review, and respond to every phase of your project—from initial planning and budget preparation to on-site approvals. Next, you can rely on our customer service team to provide exceptional technical product support, while our nationwide network of service professionals will execute the final phases of installation and ongoing proper maintenance. Our goal is your complete satisfaction.

Our design and development services include consultation for our complete range of entrance solutions:

- Automatic door systems (sliding, swinging, and revolving doors).
- Physical access systems
- Glass systems and hardware
- Architectural hardware
- Operable walls

Consulting services include:

- Developing code-compliant access solution specifications and schedules
- Meeting with the design professional and/or owner to discuss project requirements and security coordination
- Assisting with development of a professional key system
- Preparing budgets
- Reviewing substitution requests
- Reviewing submittals
- Responding to RFIs, owner's comments, and comments from other entities.
- Assisting with punch list development and administration

Nationwide service & installation

dormakaba's nationwide network of service professionals provides responsive and comprehensive sales, technical, project management, and maintenance support. Dedicated to the highest level of expertise, all our service technicians are certified by the American Association of Automatic Door Manufacturers (AAADM).

With offices conveniently located throughout North America, there is a certified service professional near you ready to respond to your service needs.

Visit **go.dormakaba.com/ServiceAMER** to learn more about dormakaba service and installation.

Our nationwide network of service professionals is certified by the American Association of Automatic Door Manufacturers.

One ED Header Intelligence and beauty in one narrow package.

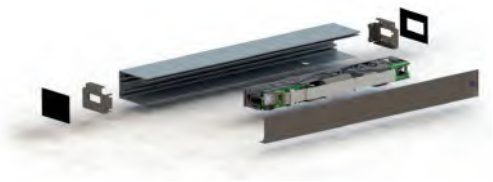
dormakaba offers the first truly integrated swing door operator. The drive system, control unit, power supply, and user interface are all designed to work as One System, not as separate operating parts.

This unique design approach allows the operator total control of all door movement. Industry standard operators control door movement only when opening and rely on a passive closing system driven by a spring or hydraulic closer. Our integrated operator actively controls the door at all times when opening, closing, and stationary.

Multiple ED Series solutions in one header

Whether your swing door application requires a true manual door feel with a low energy operator (ED50), a medium-duty power operated pedestrian operator (ED100), or a heavy-duty power operated pedestrian operator (ED250), the dormakaba ED Series has a solution for you. Every operator features a narrow or fine header to seamlessly blend with the door frame and accommodate minimal header space.

What if opening conditions change? Our single-sled design operators allow simple adjustments depending on usage and performance requirements. Selectable low energy, power assist, weight, wind load, sweep speed, and latch speed can be programmed to accommodate all power open functions and options.



State-of-the-art system

Built into every operator system is the most technologically advanced CPU, multi-stage gear box, and user interface available. The

CPU, coupled with real-time adaptive software, is self-learning for the door weight and inertia, ensuring consistently smooth operation. The system has dedicated circuits and LED status indicators for up to five presence sensors—reducing diagnostics and repair. The easy 3-digit display allows you to monitor the performance of every function for easy diagnostic evaluation.

With the same 3-digit display or a hand-held device, you can program the unit to adjust parameters in the system's logic. This allows for excellent monitoring and diagnostics of the system's performance.

Environmentally friendly

The ED Series operator reflects our commitment to environmental responsibility. As 11% of a building's energy is lost through its doors, ED Series operators help to control climate within the building. Our operator intelligence controls door movement, both opening and closing, under all environmental conditions.

Our operators, as documented in their Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs), provide long-lasting, dependable performance. They are tested to one million cycles in climate-controlled test chambers that replicate severe weather conditions. Installing ED Series operators not only reduces costly repairs, it also reduces your building's environmental impact.

Reliable locking is a matter of trust

You can trust ED Series operators to be reliable components of your building's overall security. The dormakaba ED Series operators are 3rd party tested to over 1M cycles and have a less than 1% failure rate globally.

The innovative ED Series offers a range of operators to address your building's security concerns:

- Integrated electrified hardware circuit, allowing for seamless control of security hardware
- Built-in door position status, indicating door open or door closed
- Close and latch in case of power loss (adjustable closing speed on loss of power)
- Hardware pre-load functionality.
- Built-in interface to connect with any access control system

ED Series operators are a top choice for noise sensitive areas.

Ultra quiet operation

Well suited to quiet environments such as healthcare facilities, offices, and libraries, ED Series operators control doors in virtual silence. Thanks to a multi-stage gear, the easy opening action is ultra quiet, making the ED Series perfect for noise-sensitive areas.

Smoke evacuation system (blow-open)

The contact from the smoke evacuation control triggers the operator to open to its preset degree of opening. The operator keeps the door open while the contact remains closed, followed by the preset system hold-open time. If needed, the ED operator provides a status relay to signal the smoke evacuation system that the doors have reached their open position, allowing the system to begin sequencing fan operation.

Selection Guide	ED100	ED250	ED50	ED-250IG
Door size	Up to 48" (1219) wide	Up to 48" (1219) wide	Up to 48" (1219) wide	Up to 48" (1219) wide
Recommended door weight	Up to 600 lb (272 kg)*	Up to 800 lb (362 kg)**	Up to 220 lb (98 kg)	Up to 600 lb (272 kg)
4" × 6" narrow header	•	•	•	—
Optional 2-3/4" fine cover	•	•	•	—
Overhead concealed (side load)	•	•	•	—
Low energy (ANSI A156.19)	•	•	•	•
Power operated pedestrian (ANSI A156.10)	•	•	—	—
Sensor monitoring capable	•	•	•	•
Integrated wind control	•	•	—	•
Primarily for manual use	—	—	•	—

• yes — no

* 600 lb at maximum door width of 48" and Low Energy [ANSI A156.19] For Full Energy [ANSI A156.10] applications with door weights above 200 lbs. contact Technical Support

** 800 lb at maximum door width of 48"Low Energy [ANSI A156.19] For Full Energy [ANSI A156.10] applications with door weights above 200 lb. contact Technical Support

Simple

- The ED50/ED100/ED250 operators are exceptionally easy to install. The narrow height minimizes modifications to adjacent work
- The operators can be installed as push versions with standard arms or pull versions with a slide channel
- Mounting plate installation provides a simple one-person install process with easy electrical hookup and without heavy lifting
- The header can be field fit to any application, single or pair

Settings and adjustments

- All major adjustments are easily accessible on the control unit, allowing correct settings for varying door and pedestrian requirements. Main adjustments are as follows:
  - Open speed
  - Time delay (hold open time, 1–30 seconds)
  - Close speed
  - Open check speed
  - Open force

Electrical requirements

- 115 VAC, +/- 15%, 50/60 Hz, 5 A minimum
- Robust electronic power supply that operates with surge and brown out protections
- In the event of a power loss, the operator is able to control the closing speed, allowing the system to act as a manual door closer

Options for activation

- Pushbutton
- Internal Push-&-Go
- Card readers
- Power assist
- Remote controls
- Integration with any access control system
- Sensor activation

Door control switch options

- ON/OFF/HOLD OPEN
- Optional key switch

Sensor systems

- Monitored circuits with all presence sensors to meet the latest revision of ANSI/BHMA 156.10 (2017)
- Compatible with dormakaba approved presence sensing systems
- Built-in power supply for sensors

Finishes

- Clear anodized
- Dark bronze anodized
- Special finishes available (custom anodized, paint, architectural metal cladding)

ED100 Low energy/Power operated pedestrian operator

The ED100 is our most versatile operator and can function as either a low energy operator or a power operated pedestrian unit. These complete factory-engineered door systems meet all of the stringent requirements of ANSI 156.10, ANSI 156.19, and UL325, are UL 10C rated and independently tested to over 2.5 million cycles.

The ED100 operator is ideal for ADA-compliant entrance applications. With a multitude of adjustable features, you have the flexibility to fine tune the operator to meet opening requirements.

The ED 100 is field adjustable to work as both low energy "knowing act" activated or power operated pedestrian use "full energy."

Door weight:	Up to 600 lb (272 kg)*
Door size:	Up to 48" (1219 mm) wide
Duty:	Medium to heavy
Application:	Low energy or pedestrian door use Any door in a building
Configuration:	Surface applied or overhead concealed (side load)

*600 lb at maximum door width of 48" Low Energy [ANSI A156.19]
For Full Energy [ANSI A156.10] applications with door weights above 200 lb. contact Technical Support

ED250 Power operated pedestrian operator

The ED250 full power operator is designed for demanding applications such as retail centers, airports, and health care facilities. Engineered for high traffic entrances and heavy-duty applications, the ED250 can handle doors up to 800 lb per door leaf.

Independently tested to over 2 million cycles, this heavy-duty operator brings power, security, and wind loading to the most demanding applications with elegance and ultra quiet door operation.

Door weight:	Up to 800 lb (272 kg)**
Door size:	Up to 48" (1219 mm) wide
Duty:	Heavy
Application:	Pedestrian door operation, low energy, heavy doors
Configuration:	Surface applied or overhead concealed (side load)

** 800 lb at maximum door width of 48"Low Energy [ANSI A156.19]
For Full Energy [ANSI A156.10] applications with door weights above 200 lb. contact Technical Support

How wind loads affect swing doors

Swing doors are often exposed to wind loads. Wind acts with full force on exterior doors, while interior doors are subject to pressure differences caused by air conditioning and ventilation systems, known as the stack effect. With a surface of around 21 square feet, even average sized doors are heavily affected by wind loads. This negatively affects the proper driving behavior of swing doors during their opening and closing cycles.

The ED100/250 software recognizes and compensates for wind loads by actively changing the operational parameters in both opening and closing cycles. The software custom tailors the door's behavior to the prevailing weather conditions. Our door intelligence ensures a climate-controlled environment in the event of the most demanding situations.

ED50 Low energy operator

The ED50 low energy operator is the perfect solution for barrier-free access applications, offering a true manual door closer experience. Simple and easy to install, the ED50 provides many features and functions to make existing doors easily accessible.

This medium-duty swing door operator can automate new or existing swing doors through the use of a push plate, wave plate, or other "knowing act" devices. The ED50's advanced automatic power assist combines minimal push forces (as low as ANSI size 1) with reliable closing. Third party tested to over 4 million cycles, the ED50 ensures exceptional durability and performance.

All common applications for outswing and inswing doors—either with push arm or slide track arm for tight side clearance—can be adapted for barrier-free access.

Door weight:	Up to 220 lb (98 kg)
Door size:	Up to 48" (1219 mm) wide
Duty:	Medium
Application:	Manual and low energy operation Interior doors
Configuration:	Surface applied or overhead concealed (side load)

ED-250IG Low energy in-ground operator

The powerful ED-250IG in-ground operator is the perfect solution for operating heavy doors with a concealed closer; for example, when the clean lines of an all-glass façade need to be preserved or the design integrity of a historical building needs to be maintained.

The ED-250IG in-ground automatic floor operator provides impressive power in an exceptionally compact footprint: only 35-1/2" long × 5-7/8" wide × 4-7/8" deep, the shallowest available, with the ability to support doors weighing up to 600 lb.

The ED-250IG functions as a low energy (ANSI Standard A156.19) operator and has been independently tested to 2 million cycles. It can be installed in both new construction and retrofit applications. Available for single or paired applications, the operator integrates with any access control system.

Door weight:	Up to 600 lb (272 kg)
Door size:	Up to 48" (1219 mm) wide
Duty:	Heavy
Application:	Manual and low energy operation Heavy weight doors
Configuration:	In ground

Door
Hardware

Electronic
Access & Data

Mechanical
Key Systems

Lodging
Systems

Entrance
Systems

Safe
Locks

Service

Our Sustainability Commitment

We are committed to fostering sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations.

Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impacts through its entire life cycle, dormakaba provides Environmental Product Declarations (EPDs), in which the results of the life cycle assessment (LCA) are presented.

The full EPD is available for download at https://www.dormakabagroup.com/en/sustainability/product-declarations.

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dormakaba USA Inc.
6161 E 75th Street
Indianapolis, IN 46250
1-800-265-6630

dormakaba.us

dormakaba.com