Sliding door operator

DORMA ES 200
Flexible, simple and modular – with drive power to spare.

The new, innovative DORMA ES 200 sliding door operator system offers the perfect solution for all applications and service requirements. The ES 200, equipped with the DORMA PowerDrive technology, fulfilling every demand imposed on operators in terms of adaptability to different door widths, door weight capacity and functionality.

The modular system
The modular design of the ES 200 provides an ideal basis for the implementation of new ideas and individual concepts in the design and construction of sliding door systems. The identical mechanical components can be used in all three versions of the operator (ES 200, ES 200-2D and ES 200 Easy).

For extra convenience, you can also program the system using the DORMA ASP software loaded on a PALM.

Integrated power
With its extra-powerful motor and a dynamic acceleration/deceleration (operating curve) control capability, the integrated PowerDrive system ensures safe and reliable operation. And it can readily cope with sliding door weights of up to 2 x 160 kg per door panel weight.

Exceptional cost-efficiency
With the ES 200, DORMA offers a drive system of modular design capable of covering every application on the basis of just a few components. The system offers easy assembly and installation, reduced storage and stocking costs, and simple maintenance for enhanced operational cost efficiency.

A system for the future
With this system you are investing in the future. You also have the security derived from our decades of experience in the automatics business – a history that sets DORMA apart as the market leader in drive and control systems for doors. The ES 200 corresponds to all the latest European and German standards and safety regulations.

Delivery formats
The ES 200 is available as a component kit, as a complete, pre-assembled operator or ready integrated in all DORMA sliding door systems.

Accessories
DORMA is able to provide program switches, activators and door profiles all perfectly matched to the operator as ideal complementary components.

Features and advantages at a glance:
- Modular, flexible system
- With DORMA PowerDrive: Dynamically controlled acceleration and deceleration curves for particularly powerful operation – and with emergency power backup in the form of a rechargeable battery pack
- Industrially prefabricated and tested MiniDriveUnit
- Modular control system upgradeable with additional functional modules
- Integrated DCW (DORMA Connect and Work) bus system for easy integration of DORMA DCW sensors and actuators
- Commissioning via integrated display or optionally with PALM and ASP software
- Can be combined with all customary door profiles
- Fully comprehensive range of accessories
- Reliable investment due to compliance with all relevant European and German standards
### Door parameters

<table>
<thead>
<tr>
<th>1-panel sliding door</th>
<th>ES 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear passage width LW</td>
<td>700 – 3000 mm</td>
</tr>
<tr>
<td>Door panel weight, max.</td>
<td>1 x 200 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-panel sliding door</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear passage width LW</td>
<td>800 – 3000 mm</td>
</tr>
<tr>
<td>Door panel weight, max.</td>
<td>2 x 160 kg</td>
</tr>
</tbody>
</table>

### Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>100 and 150 mm</td>
</tr>
<tr>
<td>Overall depth</td>
<td>180 mm</td>
</tr>
<tr>
<td>Opening and closing force, max. 150 N</td>
<td>•</td>
</tr>
<tr>
<td>Opening speed (incremental setting)</td>
<td>10 – 70 cm/s</td>
</tr>
<tr>
<td>Closing speed (incremental setting)</td>
<td>10 – 50 cm/s</td>
</tr>
<tr>
<td>Hold-open time</td>
<td>0 – 180 sec.</td>
</tr>
<tr>
<td>Mains voltage, frequency</td>
<td>230 V, 50/60 Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>250 W</td>
</tr>
<tr>
<td>Class of protection</td>
<td>IP 20</td>
</tr>
</tbody>
</table>

### Basic module (BM)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modular design</td>
<td>•</td>
</tr>
<tr>
<td>Microprocessor-controlled function programs</td>
<td>•</td>
</tr>
<tr>
<td>– Off</td>
<td>•</td>
</tr>
<tr>
<td>– Automatic</td>
<td>•</td>
</tr>
<tr>
<td>– Permanent open</td>
<td>•</td>
</tr>
<tr>
<td>– Partial opening</td>
<td>•</td>
</tr>
<tr>
<td>– Exit only</td>
<td>•</td>
</tr>
<tr>
<td>– Night-bank control</td>
<td>•</td>
</tr>
<tr>
<td>Connections for</td>
<td>•</td>
</tr>
<tr>
<td>– electro-mechanical lock</td>
<td>•</td>
</tr>
<tr>
<td>– light barriers</td>
<td>•</td>
</tr>
<tr>
<td>Adjustment of all basic parameters</td>
<td>•</td>
</tr>
<tr>
<td>via integrated display and pushbuttons</td>
<td>•</td>
</tr>
<tr>
<td>PALM parameter setting</td>
<td>•</td>
</tr>
<tr>
<td>24 V output for external loads</td>
<td>•</td>
</tr>
<tr>
<td>Read-out error memory with error codes</td>
<td>•</td>
</tr>
<tr>
<td>DCW bus interface</td>
<td>•</td>
</tr>
<tr>
<td>Rechargeable battery pack for emergency operation</td>
<td>•</td>
</tr>
</tbody>
</table>

### Function module (FM) – optional extra

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy control</td>
<td>•</td>
</tr>
<tr>
<td>Door status detection (triple-mode)</td>
<td>•</td>
</tr>
<tr>
<td>Main and secondary closing edge protection</td>
<td>•</td>
</tr>
<tr>
<td>Emergency closing</td>
<td>•</td>
</tr>
<tr>
<td>Bell contact</td>
<td>•</td>
</tr>
<tr>
<td>Airlock control</td>
<td>•</td>
</tr>
<tr>
<td>Synchronising mode</td>
<td>•</td>
</tr>
</tbody>
</table>

### Additional equipment

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electro-mechanical lock (bistable)</td>
<td>•</td>
</tr>
<tr>
<td>Manual release of electro-mechanical lock</td>
<td>•</td>
</tr>
<tr>
<td>Light barriers</td>
<td>•</td>
</tr>
<tr>
<td>Backup battery pack (emergency opening, emergency closing)</td>
<td>•</td>
</tr>
<tr>
<td>Module for coupling to EIB or LON building control systems*</td>
<td>•</td>
</tr>
</tbody>
</table>

* Please ask your Sales Consultant for series start date.

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Servicing and commissioning can be performed quickly and easily via an integrated display with pushbuttons on the front panel of the control unit or with a hand-held computer (PALM) and the DORMA Automatic Service Program (ASP).
ES 200 – the professional operator for individual door design

Door variants with ES 200, 100 mm height

- With MANET single-point fixings
- With double glazing profiles type G-Iso
- With fine frame profiles G clamp-type glazing rail
- With standard frame profiles type R
- With MANET single-point fixings
- With double glazing profiles type G-Iso
- With fine frame profiles G shoe-type glazing rail
- With thermal-break profile R-Thermo

DORMA PowerDrive System for particularly punchy performance

The door variants on this page are shown as corridor installation with LM girder. See page 7 for profiles for wall face fixing.

Door variants with ES 200, 150 mm height and special version "thermal-break profile R-Thermo"

- With MANET single-point fixings
- With double glazing profiles type G-Iso
- With fine frame profiles G clamp-type glazing rail
- With standard frame profiles type R
- With thermal-break profile R-Thermo

- With MANET single-point fixings
- With double glazing profiles type G-Iso
- With fine frame profiles G shoe-type glazing rail
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- With MANET single-point fixings
- With double glazing profiles type G-Iso
- With fine frame profiles G shoe-type glazing rail
- With thermal-break profile R-Thermo
Profile for 100 mm and 150 mm height, for corridor or wall face fixing guarantees adaptation for all possible applications.

The basic mechanical system, with a low number of components, is the same for both heights.

1 LM girder
2 Basic operator profile
3 Interior cover, 100 or 150 mm high
4 Wall face fixing profile
5 Service cover holder
At the core of the ES 200: the prefabricated MiniDriveUnit. It has been industrially tested with all the requisite electrical and electronic components, thus greatly facilitating the assembly, installation and maintenance of the door operator.

Easy parameter adjustment facilitated by an integrated display with pushbuttons on the front panel of the control unit or using a PALM and DORMA ASP software.

Components

1 MiniDriveUnit
2 Transformer
3 Motor
4 Decoder
5 Basic control module (BM)
6 Function module (FM)
7 Track and mounting profile
8 Battery pack (optional)
9 Carrier
10 Return pulley
11 Service cover holder
12 End stop
13 Door bracket with adjustment device
14 Belt connection
15 Belt tensioning device
DORMA supplies door profile for doors in full-glass and for framed doors as the optimum addition to the ES 200. Manet single point fixings and a glazing rail complement the program.

1. Fine frame profile system type G
2. Double glazing profile system type G-Iso
3. Standard frame profile type R

MANET single-point fixings
Program switch to select the operating mode of DORMA automatic doors.
- Up to 5 different functions:
  Off, Automatic, Exit,
  Partial opening,
  Permanent open
- Electronic program switch in System 55 design for the highest aesthetic demands
- Material variants for frames from polished steel, abrasive blasted silk-mat stainless steel, aluminium and brass to glass, ebony or terracotta
- Also lockable by key or electronic code
- For internal or external installation as well as flush-mounted or surface-type installation

Pushbuttons and switches: Electric, pneumatic or radio remote.
- To open and close DORMA automatic doors
- Via key or manually by switch or momentary contact
- For a variety of installation situations: flush or surface mounted or in the door frame

The widely diversified automatic system accessories from DORMA are complemented by further components which are specially matched to various safety measures.

Radar motion detectors
- Directional sensitive – standard version
- Directional non-sensitive
- Radar detector for any combination
- No effect on pacemakers due to the low output, approx. 2 mW

Light barriers
- According to the reflex-light principle
- Additional protection of closing sweep, installation 200 and 1000 mm above floor level
Automatic sliding door operator for
( ) 1 panel  ( ) 2-panel sliding door
( ) 150 mm height  ( ) 100 mm height
Dimensions (H x D): 150/100 x 180 mm. Microprocessor control, self-learning, reversing when obstruction is encountered.

Clear passage width:
1-panel 700 – 3000 mm
2-panel 800 – 3000 mm

Door weight:
1-panel max. 1 x 200 kg
2-panel max. 2 x 160 kg

Function programs:
Off, Automatic, Permanent open, Exit only, Partial opening, Night-bank control, Emergency off. Basic parameters of door adjustable via integrated display and pushbuttons. With choice between emergency opening and emergency closing in the event of a power failure (powered by optional backup battery pack).

 Manufactured according to the guidelines for power-operated windows, doors and gates ZH 1/494, latest edition, German UVV (accident prevention) and VDE (electrical engineering) regulations. TÜV type tested, compliant with EU low-voltage directives, production according to ISO 9001 certification. Fulfils the future European standards and regulations.

Power supply data:
230 V, 50/60 Hz

Switches, pushbuttons:
( ) Program switch:
( ) external flush-mounted
( ) external surface-mounted
( ) internal  ( ) lockable
( ) Emergency off pushbutton installation:
( ) external flush-mounted
( ) external surface-mounted
( ) internal  ( ) dual box, external
( ) under glass

Additional equipment:
( ) Battery pack, fitted in header, for emergency opening or emergency closing

Activators:
( ) Radar system
( ) directional sensitive  .......... pcs.
( ) non-directional sensitive  .......... pcs.
( ) other  ........................ pc.
( ) Light barriers, comprising receiver and transmitter (only 3-wire technology)  .......... pcs.

Locking:
( ) electro-mechanical locking, bistable
( ) door status detector, locking detector
( ) manual unlocking

Colour light alloy parts:
( ) silver, anodised E6/C0
( ) RAL  ..................

Operator dimensions:
Total length B  .......... mm
Clear passage width LW  .......... mm

Make: DORMA ES 200