record C 127
Concealed underfloor drive for swing doors
A well-maintained principle in developing our products is how noticeably quiet they are during operation. The prime example of this is the record DFA 127 designed for the automation of swing doors, that only produces a slight noise even when being utilised to the full. With the installation set for underfloor assembly that is now on offer, even the latter is reduced to the point where the door can practically no longer be heard moving.

Invisible record drive – tried and tested, powerful and silent

The record C 127 underfloor drive for swing doors adds another type of application to the range of the record DFA 127 product range that has been truly tried and tested for many years. Experience, expertise and reliable technology from record have been combined in the development of this drive. Due to its modular construction and its flexibility in adapting it to the existing door, the record C 127 can be used for the most diverse applications. As it is extremely quiet and has a high level of momentum, even heavy doors weighing up to 400 kg can easily be moved with it.

The concealed drive supports the design leeway available to the sophisticated architect. The easy-care system is sunk into the ground – if necessary concealed underneath the floor covering – and thus harmoniously blends in with the entrance area.

Benefits

→ Invisible drive
→ Absolutely silent
→ Powerful – up to 400 kg door leaf weight
→ It is also possible to used drives for double-leaf door systems (master/slave)
→ Tested in accordance with Protection Class IP 67
→ Intuitive record operating concept
→ The serial drive has proved its worth hundreds of thousands of times
→ Low-maintenance

Fully integrated; encapsulated to repel dirt and liquids

The drive unit of the door is placed in its own housing, where it is protected from mechanical influences. Three water-resistant cable glands are used to connect the power supply, actuating elements and safety sensors.

The strong encapsulation to avert dirt and moisture in accordance with Protection Class IP 67 offers high protection against various ambient influences. Puddles of melted snow and ice or rainwater, as well as washing liquid from floor cleaning machines, do not impair the record C 127 underfloor drive’s operation.

Wind load brake

Our record C 127 is not only protected against water. The wind also has a great influence on the doors, particularly in coastal and mountainous regions, where it builds up enormous forces. Without braking, there is a risk of damage to the door leaf and drive motor upon impact with the end stops. These dangers can be avoided by using a wind load brake, which acts on the drive motor.

Too high speeds of the door leaf, caused by the influence of persons, wind gusts or heavy winds, are avoided by the wind load brake. This prevents uncontrolled impact on the end stops. The brake becomes active during the last 20° of the opening angle both before the open position and before the closed position. The wind load brake can be extended to an effective range of 30° for doors that are particularly exposed to the wind.

INVERSE safety option

In the normal version, the record C 127 opens doors using a motor and closes them with spring force. The INVERSE version reverses this principle, but remains almost unnoticed in daily operation.

If a building is filling with smoke and the drive is activated by an external smoke and heat extraction system, the C 127 INVERSE opens reliably – thanks to opening by spring force, even in the event of a power failure. This enables the door to be used as an air vent opening for a targeted fresh air supply or for smoke and heat extraction.

Use

The record C 127 underfloor drive is suitable for single or double-leaf framed glass doors or all-glass doors. The operating modes can be selected conveniently using the record BDE-D electronic control unit. The backlit display of this unit provides information at all times about the current operating condition of the door in the local language and in plain text.

We moreover offer a range of sensors, contactless and touch-sensitive buttons and matching accessories, co-ordinated with our products, which excels through outstanding actuating performance, the highest degree of reliability and optimum safety.
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Concealed underfloor drive for swing doors
record C 127 – CENTER & OFFSET

The record C 127 is available in two basic versions. The CENTER version with a central drive flange and the OFFSET version with a laterally offset drive flange.

CENTER

In the CENTER design, the door leaf is driven by means of a lever arm installed in the centre, either directly, in which case the lever arm may simultaneously function as a lower door mounting, or with the aid of a sliding arm, as is required in the case of doors attached to the frame. The lateral clearance of the lever arm is 120 mm; the clearance of the lever arm to the front is 61 mm in the standard version and 76 mm in the heavy version. In order to make use of the slightest projection, these two versions can also be installed at a 90° angle to the door sill.

OFFSET

In the OFFSET version, the drive pin has been offset from the centre to the edge of the housing, thereby reducing the clearance to the side wall to only 60 mm. This ensures that expansion joints or moisture barriers installed in front of the door sill are not affected and the drive can be mounted completely on the inside of the building.

For double-leaf door systems, another, symmetrically identical, housing shape has been developed. The doors can also be opened either inwards or outwards.

Angle of aperture

The opening angle of the heavy versions is 95° maximum and can be limited electronically to approximately 70°.

The record C 127 CENTER Standard offers a larger opening angle of up to 115°. However, because of the modified transfer, this drive is only suitable for narrow door wings.

Options

- Stainless steel floor plates to cover the drive
- Fixed wall box for the CENTER version
- Different lever arm lengths – sliding rods for the CENTER version
- Wind load brake (standard with OFFSET)
- Various actuating elements and fuse sensors
### Installation situation & possibilities

#### Door wing weights & door widths

The following performance diagram illustrates the record C 127:

![Graph showing door leaf weight vs. door width]

<table>
<thead>
<tr>
<th>Door leaf weight [kg]</th>
<th>0.6</th>
<th>0.7</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
<th>1.1</th>
<th>1.2</th>
<th>1.3</th>
<th>1.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door width [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Operating modes

The following operating modes can be set:

**Manual mode**

In manual mode, the drive is used as a mechanical door closer. The door can be opened without motor resistance and closes purely mechanically with spring force.

**Power Assist (optional programming)**

Power Assist is a function that allows a door to be opened manually, but opening movement is motor-assisted. The main advantage is that even heavy doors can be opened effortlessly with minimal effort, since the motorised assistance balances the initially high moment of inertia. This is necessary for children or elderly people in particular, who could otherwise have difficulty in applying sufficient force to open a heavier door.

**Touch control**

With the touch control system, the door requires only a short, fixed pulse to be opened automatically. The door closes after a selectable time span of 0 – 60 seconds has expired.

**Automatic mode**

In automatic mode, an electronic opening pulse is sent to the door via a sensor, a key switch or a button.

**One-way traffic**

One-way traffic ensures that store owners can finish work on time. The opening pulse from the external sensor, switch or button is suppressed, so that the door only reacts to people wanting to leave the store.

**Locked**

In the locked state, the powerful motor uses full power to resist manual opening of the door leaf. For effective burglar protection, the door must also be secured with locks.
**Options**

- Lever arm shaft OFFSET (is made individually project-specifically)
- CENTER standard lever with standard damping disc
- CENTER sliding arm with lever arm and standard 10 mm spigot shaft
- CENTER polished stainless floor plate 820 x 310 mm
- CENTER cranked standard lever for hinged doors
- CENTER fixed wall box 780 x 270 x 145 mm
- CENTER splined hub, 25 mm to support the lever arm and door leaf
- CENTER spine shaft extension 50, 75, 100 mm / distance tube 75 mm
- CENTER spigot shaft for sliding arms 10, 18 or 23 mm

### Options Table

<table>
<thead>
<tr>
<th>Options</th>
<th>CENTER Drive</th>
<th>OFFSET Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>230VAC</td>
<td>115VAC</td>
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<tr>
<td></td>
<td>230VAC</td>
<td>115VAC</td>
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<td>Direction of rotation reversible</td>
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<td>O813027</td>
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<tr>
<td>Wind load damping, Standard</td>
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<td>O813027</td>
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<tr>
<td>Wind load damping, Heavy</td>
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<tr>
<td>OFFSET lever arm shaft 105–150mm individual</td>
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<td>Splined hub 25 mm</td>
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<td>Standard lever 12 mm</td>
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<td>Standard lever 15 mm</td>
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<tr>
<td>Sliding arm with 10 mm spigot shaft</td>
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<tr>
<td>Spigot shaft for sliding arm 18mm</td>
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<tr>
<td>Spigot shaft for sliding arm 25mm</td>
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<td>Cranked standard lever</td>
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<td>Fixed wall box</td>
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<td>Standard stainless steel floor plate</td>
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<tr>
<td>Heavy stainless steel floor plate</td>
<td>O809019</td>
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</tr>
</tbody>
</table>

Key: = Standard; o = Option; – not available; * no surcharge
Contact

Technical specifications:
Housing dimensions CENTER (LxBxD): 710 x 200 x 130 mm, with installation housing 780 x 270 x 145 mm
Housing dimensions OFFSET (LxBxD): 850 x 260 x 158.2 mm
Operating voltage: 230 VAC 50 / 60Hz, 115 VAC 50 / 60Hz
Power consumption: 13 W in standby mode, 67 W rated power
Maximum torque: 50 Nm (80 Nm in the case of a reinforced “Heavy” version)
Maximum moment of inertia of the door leaf: 6.5 kgm² (140 kgm² in the case of the reinforced “Heavy” version)
Door weight: Up to 400 kg

Adjustable parameters:
Angle of aperture: Can be selected from 70° to 95°, CENTER Standard to 115°
Hold-open time: Can be selected from 0 to 60 seconds
Opening speed: Can be selected from 3 to 20 seconds
Closing speed: Can be selected from 5 to 20 seconds

Operating conditions:
Ambient temperature: −15 °C to + 50 °C
Humidity range: Up to 85% relative humidity, non-condensing
Wind load: Designed for wind load zone 2 (25 m/s)
Protection class: IP67

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