

Specification Text - TORMAX 1102 Swing Door Drive

Automatic Swing Door

Dimensions

- Overall width mm
- Overall height mm
- Overall passage width mm
- Overall passage height mm

TORMAX 1102 Swing Door Drive

The TORMAX 1101 is an overhead swing door drive which can be extended in modules; the drive has compact dimensions and an integral mechanical door closer. Depending on the use of the supplementary modules which can be obtained as and when needed to suit the operator's requirements, this drive can be used for Power-Assist (power-assisted manual operation), Low-Energy (limited power and speed) or Full Power modes (i.e. combined with safety sensors) on narrow to medium width swing doors and light to moderately heavy swing doors with frequent footfall and low wind loads.

The drive provides short opening times even under moderate loads (door weights / door widths). The integral, infinitely variable mechanical closing function closes the door even in the event of a power failure. The drive provides short opening times even under heavy loads (door weights / door widths). The integral, infinitely variable mechanical closing function closes the door even in the event of a power failure.

The drive can be installed on the lintel or the door leaf and can be used as required on DIN L and DIN R doors, double-leaved doors with two electronically linked drives and in air locks (up to four electronically linked drives). At the heart of the drive are a direct current motor which is controlled by a four quadrant chopper, a modern 32-bit microprocessor control unit, a silent gear assembly, a high output power supply unit, a closing spring and functionality which can be extended to suit the operator's requirements. This combination guarantees a low maintenance requirement, excellent reliability, low noise emissions and a long working life.

By adding supplementary modules, the functionality of the control system can be extended to include the widest possible range of applications (including applications in Full Power mode, see PDM; entrance door applications, see EDM; multi-leaf systems, see MDM-B; also see MDM-A for modules for multi-leaf systems with networking, barrier-free toilets, double door coordination for hospital beds and electronically linked multi-leaf doors; rechargeable battery unit, see BTU). A double-leaved system can also be equipped with a mechanical door coordinator (see MDC).

Drive and upgrade modules

(_) Electro-mechanical swing door drive

Technical features:

- Drive dimensions: 85 x 128 x 640 mm
- Drive weight: 11.2 Kg
- Supply voltage: 230 VAC, 50 Hz
- Protective system: IP 20
- Voltage feed for external consumers: 24 VDC, max. 1800 mA
- Maximum recommended door width: 1.25 m
- Maximum recommended door weight: 125 Kg
- Maximum torque on the door leaf when using PDM with a normal linkage (opening or closing): 85 and 170 Nm respectively
- Maximum torque on the door leaf when using PDM with a sliding rail (opening and closing): 30 and 50 Nm respectively
- Closing force when operated manually:
EN 4 normal linkage, EN 2 sliding rail, fixed spring force
- Maximum angular velocity with PDM (Full Power mode): 60°s^{-1}

Integrated functionality and connection options:

- Operating modes: Low Energy or Power Assist
- Motional speed and motor output designed for Low Energy
- Maximum opening angle: 110°
- Motor assisted closing (can be disabled)
- Adjustable mechanical closing force
- Latching action
- Release movement
- Activator input
- Input with selectable function
- Output with selectable function
- Adjustable open end stop
- Integral 3 position operating mode switch (automatic on, automatic off, permanently open)
- Anodised aluminium casing with two side plates

Extendable functionality – Upgrade modules

- (_) **PDM:** additional functionality and connection options for Full Power applications
 - Operating mode: Full Power mode with safety features
 - Maximum motional speed and motor power
 - Emergency motion
 - Movement interruption
- (_) **EDM:** additional functionality and connection options for entrance doors
 - Additional operating modes: in, out and manual
 - User interface with Operating Instructions
 - Electrical door opener or motor lock
 - Holding magnets
 - Interface for the Skipper configuration tool
- (_) **MDM-B:** additional functionality and connection options for multi-leaved doors
 - 2 leaf door, electronically linked
 - 2-4 leaf doors i.e. air locks, electronically linked
- (_) **MDM-A:** additional functionality and connection options for multi-leaved doors, networking and special applications
 - 2 leaf doors, electronically linked
 - 2-4 leaf doors i.e. air locks, electronically linked
 - Networking: potential-free inputs and outputs
 - Networking: RS485
 - Double door coordination for hospital beds
 - Barrier-free WC

Add-on units/modules

- (_) **BTU:** additional functionality and connection options for use during brief power failures
 - Rechargeable battery unit
- (_) **MDC:** Mechanical door coordinator
 - MDC set

Linkages and connecting shafts

Linkage

- (_) Linkage (push arm) (normal linkage) with 350 mm drive lever, for lintel depths - 100... +180 mm
- (_) Linkage (push arm) (normal linkage) with 290 mm drive lever, for lintel depths - 40... +240 mm
- (_) Linkage (pull arm) with 350 mm drive lever, for lintel depths 0...+150 mm

- () Linkage (pull arm) with 500 mm drive lever, flexible installation position, for lintel depths 0...+150 mm
- () Linkage (pull arm) with 350 mm drive lever and panic fitting, for lintel depths 0...+150 mm

Connecting shaft

- () Connecting shaft drive – linkage L = 63 mm (installation flush with lintel)
- () Connecting shaft drive – linkage L = 82 mm (raised installation)
- () Connecting shaft drive – linkage L = 123 mm (raised installation)

Casing

Casing for double-leaved systems

- () Continuous casing across the entire door width
- () Three-part casing across the entire door width

Operating units

- () User interface with 7 segment display and 2 button operation, suitable for the 45 x 45 mm Legrand system (in conjunction with EDM)
- () On-off switch, suitable for the 45 x 45 mm Legrand system

Sensor technology

Activation

- () Radar
- () Active infrared
- () Passive infrared
- () Contact-free hand switch
- () Hand switch, manual

Safety devices

Safety devices must be specified in accordance with a risk assessment as required by the Machinery Directive 006/42/EC and in compliance with DIN 18650-2.

- () Dynamic safety (with/without test facility)
- () Static safety (with/without test facility)
- () Combi sensor (radar and 3D safety light curtain, AIR) with test facility