

Swedish Technical Approval

SC0840-09

and decision on production control, in accordance with chapter 8, 22 and 23 §§ Planning- and Building Act (2010:900), PBL

Swing door operator EM SW EMO

Holder

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Product

EM SW EMO is a motorized swing door operator which is operated by contact or impulse sensor. EM SW EMO can be mounted on the wall on either side of the hinged door or balance door, BDS, for pull or push action and is suitable for single or double doors fitted with butt hinges or pivots. Connects to single phase power supply. EM SW EMO has twelve variants of arm system, models 1003576, 1003577, 172312, 172313, 172314, 172315, 1007134, 1005273, 1007241, 1007965, 1008401 and 1011998.

See also the paragraph "Comments".

Intended use

Pulse controlled motor drive for swing doors with max. leaf weight 90 kg.

With pushing function ("Arm system PUSH"), the EM SW EMO can maintain door leaf(s) in closed position during fire and is an alternative to a lock with latch for approved swing doors, with no higher class than E 30, A 30 or EI30, which are tested without latch and with a holding force at the arm fixing point at the upper edge of the door leaf. EM SW EMO can also be used on doors listed on page 5 "Register of doors for which a lock with a latch bolt can be replaced with EM SW EMO swing door operator".

Trade name

EM SW EMO

Approval

The product satisfy the requirements set forth in chapter 8, 4 § 2 and 4 PBL, in respect to and under conditions stated in this certificate, and are therefore approved in accordance with the provisions of the following sections of Boverket Building Regulations (BBR):

Protection against damage by mobile devices*	8:33
Fire resistance class E 30, A 30 and EI 30	5:231
Doors (manual opening)	5:335
Door closer class C5	5:254

*The side-hung doors will be accepted without stop switch.

Associated documents

Swing Door Operator EM SW EMO, User Manual Original instructions
Ref. No 1005099-EMEI-6.0 - Issue 2014-02-25.

Swing Door Operator EM SW EMO Installation and Service Manual Original instructions Ref. No 1005088-EMEI-11.0 – Issue 2014-11-24.

Control

Production control is to be performed in accordance with instructions for control dated 2006-06-26. An independent inspection body audits the control.

Control agreement: 210-97-0863.

Inspection body: SP Technical Research Institute of Sweden.

When the building proprietor performs inspection at the building site, he shall check the markings to ensure that the correct products have been supplied and that they are used in accordance with the requirements stated in the approval and the associated documents. He must also check that the product is accompanied by a manufacturing assurance, which certifies that the product has been manufactured in accordance with the documents on which this certificate is based.

In addition, it shall be ensured that the opening force at the leading edge of the door leaf is in accordance with the list on page 5: "Register of doors for which a lock with a latch bolt can be replaced with EM SW EMO swing door operator"

and that the force to push the door in evacuation routes, according to BBR 5:335, should be less than 150N for doors with a pressure plate alternatively 220N for full door leaves.

According to BBR 5:12, the fire protection documentation shall include written instructions for testing, care and maintenance performed by the user / administrator.

Measuring the opening forces shall be performed in accordance with EN 1154 at least four times per year by the opening angle 0°, the test results shall be recorded. Information on this control should be included in the instructions for the supervision of escape routes, that shall be included in the fire protection documentation.

If automatic activation units are used, the function shall comply with information described in paragraph Comments.

Manufacturer

Production control includes the following site:

Factory No. 6.

Marking

The product shall be marked at the factory. The marking consists of a label on every unit supplied and includes:

Approval holder	Entrematic Group AB Landskrona
Manufacturing site	Factory No. 6
Boverket's registered trademark	†
Certification body and accreditation No.	SP Certifiering 1002
Product type designation	EM SW EMO
Approval number	SC0840-09
Serial number and date	No / date
Inspection body	SP

Basis for approval

Reports PX28577, 3P03554-03, 3P04167-3, 3P03554-02, 3P03554-01, 3P03554, 3P03425 and F603709-A from SP Technical Research Institute of Sweden.

Comments

The electrical equipment shall comply with the applicable electric regulations ELSÄK-FS 2000:1; *the Swedish National Electrical Safety Board regulations for certain electrical material and general advice on their applicability* and ELSÄK-FS 2007:1, *the Swedish National Electrical Safety Board regulations for electro-magnetic compatibility (EMC) with amendments*, in order to fulfill the requirements of the approval.

Doors fitted with door opener EM SW EMO fulfill requirements for maximum clamping forces according to EN 16005:2012 and EN ISO 13849-1:2008 which means; that in the event of interruptions in the power supply or unit failure, it shall be possible to open the door by manual force not exceeding 67 N to release a latch, 90 N to set the door in motion and 67 N to fully open the door when the force is applied perpendicular to the main closing edge in the direction of travel.

The product meets the most essential requirements in SS EN 60335-1 and -2-103 according to the summary in test report 3P03554 from SP Technical Research Institute of Sweden.

EM SW EMO is tested with doors for fire resistance according to SS-EN 1634-1:2008.

Comments continue

To avoid unintentional opening of the door in case of fire, one of the following conditions must be met:

- That only elbow contact or a pushbutton is used as impulse unit to open the door.
- If automatic activation units are used, they must be disabled by a signal from the central fire alarm system or separate smoke detectors.

They must also be disabled if there is a power cut. Smoke detectors shall be arranged that they disconnect the signal cable from the automatic activation units to the automatic door mechanism, both when they are active or inactive.

When establishing (in accordance with BBR 2:52) that fire protection installations are ready for operation, the function of any smoke detectors is to be checked.

Necessary reinforcement of the door leaves is described in the approval for each door, according to the list in page 5.

This approval supersedes the previous approval with the same number dated 6 March 2014.

Period of validity

This approval is valid until 5 Mars 2019.

The validity of this approval expires when the product shall be CE-marked according to the Construction Products Regulation (EU) 305/2011.

SP Technical Research Institute of Sweden Certification

Johan Åkesson

Ingvar Pettersson

Register of doors for which a lock with a latch bolt can be replaced with EM SW EMO swing door operator.

Valid for arm system PUSH.

For double leaved door, the flush-bolt at the passive door leaf, can be replaced by a swing door operator.

<u>Door</u>	<u>Approval certificate no.</u>	<u>Comments</u>
Sapa Front SFB 2060	1199/94 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2200 mm × 2100 mm. The opening force at the front edge of the door is to be minimum 67 N.
Sapa Front SFB 2074	14 45 01 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2200 mm × 2100 mm. The opening force at the front edge of the door is to be minimum 67 N.
Schüco Jansen Janisol 2	17 62 06 (SP)	Applies to single and double doors with max. door leaf size W×H 1290/2580 mm × 2599 mm. The opening force at the front edge of the door is to be minimum 85 N.
Schüco Jansen Economy 50/60	17 62 07 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2200 mm × 2100 mm. The opening force at the front edge of the door is to be minimum 100 N.
Schüco ADS 65. NI FR 30	17 62 12 (SP)	Applies to single doors with max. door leaf size W×H 1200 mm × 2100 mm. The opening force at the front edge of the door is to be minimum 85 N.
Schüco ADS 80 FR 30	17 62 10 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2500 mm × 2100 mm.. The opening force at the front edge of the door is to be minimum 85 N.
Wicstyle 77FP	0055/06 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2300 mm × 2200 mm. The opening force at the front edge of the door is to be minimum 100 N.
SP 35000	4294/88 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2300 mm × 2200 mm. The opening force at the front edge of the door is to be minimum 100 N.
SP 35000	4295/88 (SP)	Applies to single and double doors with max. door leaf size W×H 1100/2000 mm × 2100 mm. However, does not apply to designs with an anti-trap hanging stile. The opening force at the front edge of the door is to be minimum 67 N.
SP 76500	1946/89 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2300 mm × 2300 mm. The door is to be fitted with heat expanding seals according to type approval certificate No. 0616/99. The opening force at the front edge of the door is to be minimum 100 N.
Sapa 2086 SFB	SC0836-14 (SP)	Applies to single and double doors with max. door leaf size W×H 1200/2200 mm × 2100 mm. The opening force at the front edge of the door is to be minimum 67 N.