

EMF/EMR

—



Holder/Release Devices with Integral Door Closers



DORMA EMR SERIES—HOLDER/RELEASE DEVICE

The DORMA EMR Series holder/release device incorporates a photoelectric detector and can control the spread of smoke and fire in a specific location or throughout the building if wired into a central alarm panel.

The EMR Series is designed to monitor and contain the spread of fire and smoke while allowing unimpeded, easy access throughout a building. The EMR Series includes the TS93, 8900, and 8600 door closers. The TS93 in Contur Design, with the extra efficient cam and roller technology, can be used on larger doors, while the 8900 and 8600 rack and pinion closers offer a narrow projection alternative.

These units are compatible with new or existing fire/smoke control systems. Integral features of the EMR models are the photoelectric detector and holder/release device. The EMR's integral detector offers an array of electrical and signaling features along with the capability of controlling a non-detected EMF unit for pairs of doors. The

holder/release device holds a door open under normal conditions. However, if an alarm state or loss of electric current occurs, it permits the closing of the door from any angle of opening. These units are particularly suited for use in hotels, hospitals, nursing homes, schools, and senior facilities because they allow easy accessibility on a day-to-day basis, while quickly curtailing the spread of smoke and/or fire in an emergency.

In the case of an alarm state signaled by the central control system or main power failure, current to the electromagnetic hold open device is interrupted, thus allowing the door closing mechanism to take over and shut the door.

Technical Details

- Door closing control by the proven TS93, 8900, or 8600 Series closer with spring power adjustment and adjustable hydraulic backcheck.
- Hold Open (HO) design prevents damage to the door, frame, holder/release device, or

other installed hardware. This design enables initial hold while allowing the door to be manually opened beyond the hold open point.

- Detector can control one EMF unit for pairs of doors.
- Interfaces with new or existing smoke or fire control systems.
- Can be wired for concealed or surface wiring.
- HO can be released manually.
- HO – single point adjustable on pull side, push side, and double egress applications
- Separate door stops recommended to limit maximum door swing.

Certification

- The DORMA EMR Series is listed by  UL and CUL under their continuing reinspection programs.
- The EMR Series is certified to  conform to the requirements of ANSI/BHMA 156.15.
- CSFM approved.

Hold Open Power Requirement

24 V AC/DC at 165 mA (1

electromagnet), 310 mA (2 electromagnets). 120 VAC requires optional transformer (TRANSF). See accessories, back page. (The EMR detector is capable of powering and controlling a non-detected EMF unit; the two solenoid value above represents an EMR/EMF combination).

Detector

The integral detector of the EMR can be powered by a 24 V input only. A built-in rectifier converts AC linevoltage to DC, allowing all EMR models to accommodate a 24 VDC or 24 VAC input. When using 120 V line voltage, a transformer external from the unit is required to step the voltage down from 120 V to 24 V.

Detector Contact Ratings

Alarm and/or accessory contacts (resistive load): 1.25 A max. at 24 VDC, 0.3 A max. at 120 VAC. Trouble contact (resistive load): 0.5 amps max. at 24 VDC. Maximum remote alarm indicator lamp output: 0.3 A at 24 VDC. Provides power to operate remote LED.

Detector Alarm Indications

1. Red LED on in alarm.
2. Alarm relay contacts transfer.

Detector Trouble Indications

1. N.C. trouble contacts open upon loss of power.
2. Red LED stops flashing.

Detector Compatibility

Connects to one area detector for remote sensing. Interfaces with alarm systems using N.C. or N.O. alarm contacts and N.C. (under power) trouble contacts. Five EMR detectors may be interconnected for zone control of doors or pairs of doors.

Transient Protection

Door closer/holder with and without integral detector to meet U.L. 228 Standard.

Servicing Detector

Detector is field removable from unit. Smoke chamber field removable for cleaning.

NOTE: In applications requiring the 4-wire alarm initiating loop, the installing company will be responsible for placing the appropriate value resistor as required for use with the control panel.

Finishes**Standard Sprayed Finishes**

- Primed for Painting: 600
- Aluminum: 689
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

Optional DORMA Custom Color or Designer Color Finishes

Contact Customer Service.

Specifications (TS93 EMR)

DORMA TS93 EMR electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification. The closer must utilize cam and roller technology with greater

efficiency than a typical rack and pinion track closer to allow use on wider doors. The closers will have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate doors ranging from 2'-8" to 5'-0". Door sizes vary depending on installation type. Devices must accept 24 VDC or 24 VAC. 120 VAC is available with an external step-down transformer (120 VAC to 24 VAC). The TS93 EMR to have positive single point HO at any angle from 80° to 105° on T applications, 80° to 95° on PT applications, and 80° to 115° on TDE applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" x 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or a manual pull on the door disengages the hold open function and the TS93 door closer closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SN3).

Optional Specifications (TS93 EMR)

All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Specifications (8900 EMR)

DORMA 8900 EMR electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification. The 8900 closer incorporates a rack and pinion design with a narrow 2-1/8" projection and sex nuts standard. The closers will have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate doors ranging from 2'-8" to 4'-0". Door sizes vary depending on

installation type. Devices must accept 24 VDC, 24 VAC, or 120 VAC with an external step-down transformer (120 VAC to 24 VAC). The 8900 EMR to have positive single point HO at any angle from 80° to 110° on T applications, 80° to 95° on PT applications, and 80° to 120° on TDE applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" x 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or a manual pull on the door disengages the hold open function and the 8900 door closer closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All 8900 fully adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SN1).

Optional Specifications (8900 EMR)

Door closers to have full metal cover (FMC). All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Specifications (8600 EMR)

DORMA 8600 EMR Series electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification. The 8600 closer incorporates a rack and pinion design with a slim cover and a narrow 2-1/8" projection. The closers will have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate door widths ranging from 2'-8" to 4'-0", door sizes vary depending on installation type. Devices must accept 24 VDC or 24 VAC. 120

VAC is available with an external step-down transformer (120 VAC to 24 VAC). The 8600 EMR to have positive single point HO at any angle from 80° to 115° on T applications, 80° to 95° on PT applications, and 80° to 120° on TDE applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" x 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or a manual pull on the door disengages the hold open function and the 8600 door closer closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All 8600 fully adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SN1).

Optional Specifications (8600 EMR)

Door closers to have full plastic cover (FC) or full metal cover (FMC). All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Warranty

For details, refer to **DORMA Warranty Policy** on our website at go.dorma.com/terms.

DORMA USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2008 and ISO 14001:2004.



TS93 EMR T (PULL SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width					
Model	Interior/ Exterior	2'-9" min.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315 EMR T	Interior	•	•	•	•	N/A	N/A
TS9356 EMR T	Interior	N/A	N/A	N/A	•	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 2" top door rail required for closer.
- Maximum door swing 145°.
- Hold open range 80°–105°.

TS93 EMR PT (PUSH SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width					
Model	Interior/ Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315 EMR PT	Interior	•	•	•	•	N/A	N/A
TS9356 EMR PT	Interior	N/A	N/A	N/A	•	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 4-1/2" top door rail required for closer (5/8" stop).
- Maximum door swing 110°.
- Hold open range 80°–95°.

TS93 EMR TDE (DOUBLE EGRESS INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width				
Model	Interior/ Exterior	3'-0" min.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315 EMR TDE	Interior	•	•	•	N/A	N/A
TS9356 EMR TDE	Interior	N/A	N/A	•	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 2" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–115°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance required between door face and wall for 90° opening.
- Minimum double door width 72" (36" single door).

8900 EMR T (PULL SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width			
Model	Interior/ Exterior	2'-9" min.	3'-0" max.	3'-6" max.	4'-0" max.
8916 EMR T	Interior	•	•	•	N/A
8956 EMR T	Interior	N/A	N/A	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 3" door rail required for mounting closer.
- Maximum door swing 170°.
- Hold open range 80°–110°.

8900 EMR PT (PUSH SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width			
Model	Interior/ Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.
8916 EMR PT	Interior	•	•	•	N/A
8956 EMR PT	Interior	N/A	N/A	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 6" top door rail required for closer (5/8" stop).
- Maximum door swing 120°.
- Hold open range 80°–95°.

8900 EMR TDE (DOUBLE EGRESS INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width		
Model	Interior/ Exterior	3'-0" min.	3'-6" max.	4'-0" max.
8916 EMR TDE	Interior	•	•	N/A
8956 EMR TDE	Interior	N/A	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 3-1/2" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–120°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance required between door face and wall for 90° opening.
- Minimum double door width 72" (36" single door).

8600 EMR T (PULL SIDE INSTALLATION)

Technical drawing of the 8600 EMR T door in pull side installation. The side view shows a door width of 27-7/8" (708mm) and a hinge offset of 4-1/4" (108mm). The cross-section shows a door thickness of 13" (330mm) and a hinge offset of 3-3/8" (86mm). The door is supported by 4-1/2" x 4-1/2" butt hinges. The cross-section also shows the track assembly with dimensions: 1-1/2" (38mm) for the top rail, 4-3/4" (121mm) for the door to track distance, and 2-1/8" (54mm) for the door to bottom rail distance. Incoming power is shown on the right side.

Size Selection Chart		Door Width			
Model	Interior/ Exterior	2'-9" min.	3'-0" max.	3'-6" max.	4'-0" max.
8656 EMR T	Interior	•	•	•	•

- Recommended application.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 2-1/2" top door rail required for closer.
- Maximum door swing 170°.
- Hold open range 80°–115°.

8600 EMR PT (PUSH SIDE INSTALLATION)

Technical drawing of the 8600 EMR PT door in push side installation. The side view shows a door width of 27-7/8" (708mm) and a hinge offset of 2-7/8" (73mm). The cross-section shows a door thickness of 13" (330mm) and a hinge offset of 1" (25mm). The door is supported by 4-1/2" x 4-1/2" butt hinges. The cross-section also shows a 3/4" stop max. and the track assembly with dimensions: 1-1/2" (38mm) for the top rail, 5" (127mm) for the door to track distance, and 2-1/8" (54mm) for the door to bottom rail distance. Incoming power is shown on the right side.

Size Selection Chart		Door Width			
Model	Interior/ Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.
8656 EMR PT	Interior	•	•	•	•

- Recommended application.

- Minimum 5-1/2" top door rail required for closer (5/8" stop).
- Maximum door swing 120°.
- Hold open range 80°–95°.

8600 EMR TDE (DOUBLE EGRESS INSTALLATION)

Technical drawing of the 8600 EMR TDE door in double egress installation. The side view shows a door width of 27-7/8" (708mm) and a hinge offset of 6-3/8" (162mm). The cross-section shows a door thickness of 13" (330mm) and a hinge offset of 3-3/8" (86mm). The door is supported by 4-1/2" x 4-1/2" butt hinges. The cross-section also shows the track assembly with dimensions: 1-1/2" (38mm) for the top rail, 5-1/4" (133mm) for the door to track distance, and 2-1/8" (54mm) for the door to bottom rail distance. Incoming power is shown on the right side. A 3-1/2" (89mm) reveal is shown, and a minimum 2" (51mm) clearance is required for the door to the wall.

Size Selection Chart		Door Width		
Model	Interior/ Exterior	3'-0" min.	3'-6" max.	4'-0" max.
8656 EMR TDE	Interior	•	•	•

- Recommended application.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 3" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–120°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance required between door face and wall for 90° opening.
- Minimum double door width 72" (36" single door).



DORMA EMF SERIES—HOLD OPEN DOOR CLOSER

The DORMA EMF Series is an electromagnetically controlled, frame-mounted, track hold open door closer for use on fire and/or smoke barrier doors. The EMF can be interconnected with an EMR to control pairs of doors.

Like the EMR, the non-detected EMF Series is designed to contain the spread of fire and smoke. Three models are available. When using an EMF and EMR on a pair of doors, models with matching closers can be used. The TS93 in Contur Design, 8900, and 8600 Series closers offer the same features and functions as with the EMR models.

These units are compatible with new or existing fire/smoke control systems. An integral feature of the EMF is the holder/release device. It acts as a hold open unit in normal conditions. However, in an alarm state or loss of electric current, it permits the closing of the door from any angle of opening. In the case of an alarm state signaled by the central control system or main power failure, current to the electromagnetic hold open device is interrupted, thus allowing the door closing mechanism to take over and close the door.

Technical Details

- Door closing control by the proven TS93, 8900, or 8600 Series closer with spring power adjustment and adjustable hydraulic backcheck.
- Hold Open (HO) design prevents damage to the door, frame, holder/release device, or other installed hardware. This design enables initial hold while allowing the door to be manually opened beyond the hold open point.
- Interfaces with new or existing smoke or fire control systems.
- Can be wired for concealed or surface wiring.
- HO can be released manually.
- HO – single point adjustable on pull side, push side, and double egress applications.
- Can be used as companion unit to detected EMR unit for cross corridor door application. (Unit is 24 VDC only.)
- Separate door stops recommended to limit maximum door swing.

Specifications (TS93 EMF)

DORMA TS93 EMF electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification.

Closer to use cam and roller technology with greater efficiency for use on wider doors than a typical rack and pinion track closer. Closers to have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate doors ranging from 2'-4" to 5'-0". Door sizes vary depending on installation type. A 24 VDC or 24 VAC device to be available using the external (TRANSF) transformer. The TS93 EMF to have positive single point HO at any angle from 80° to 125° on **T** applications, 80° to 95° on **PT** applications, and 80° to 115° on **TDE** applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" × 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or manual pull on the door disengages hold open function and the TS93 closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SN3).

Optional Specifications (TS93 EMF)

All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Certification

- The DORMA EMF Series is listed by UL  and CUL under their continuing reinspection programs.
- The EMF Series is certified to conform  to the requirements of ANSI/BHMA 156.15.
- CSFM approved.

Power Requirements

24 V AC/DC at 150 mA. The 24 VDC unit utilizes a 24 VDC solenoid. A 24 VAC unit utilizes a 24 VDC solenoid with an in-line rectifier to convert line voltage from AC to DC. 120 VAC requires an external transformer (TRANSF) to be delivered and installed externally from the EMF.

A feature of the EMR detector is an auxiliary 24 VDC output. This output can be used to power and control an EMF unit for pairs of doors.

Finishes

Standard Sprayed Finishes

- Primed for Painting: 600
- Aluminum: 689
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

Optional DORMA Custom Color or Designer Color Finishes

Contact Customer Service.

Specifications (8900 EMF)

DORMA 8900 EMF electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification. Closer incorporates rack and pinion design with a narrow 2-1/8" projection. Closers to have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate doors ranging from 2'-4" to 4'-0". Door sizes vary depending on installation type. A 24 VDC or 24 VAC device to be available. Specify voltage. The 8900 EMF to have positive single point HO at any angle from 80° to 110° on **T** applications, 80° to

95° on **PT** applications, and 80° to 120° on **TDE** applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" x 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or manual pull on door disengages hold open function and the 8900 closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All 8900 fully adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SN1).

Optional Specifications (8900 EMF)

Closers to have full metal cover (FMC). All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Specifications (8600 EMF)

DORMA 8600 EMF electromagnetic surface applied fire/life safety hydraulic door closer to suit hold open specification. Closer incorporates rack and pinion design with slim cover and a narrow 2-1/8" projection. Closers will have hydraulic backcheck to prevent uncontrolled opening of the door. Devices to accommodate doors ranging from 2'-4" to 4'-0". Door sizes vary depending on installation type. A 24 VDC or 24 VAC device to be available. The 8600 EMF to have positive single point HO at any angle from 80° to 115° on **T** applications, 80° to 95° on **PT** applications, and 80° to 120° on **TDE** applications when current is applied. Degree of hold open range will vary for doors hung on sizes other than 4-1/2" x 4-1/2" hinges or 3/4" offset pivots. Separate door stops recommended to limit maximum door swing. Loss of electric current or manual pull on door disengages the hold open function and the 8600 closes the door. If the unit is connected to a central control system and it goes into an "alarm condition," the door closer will close the door. All 8600 fully

adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings. All closers to have sex nuts standard for 1-3/4" thick composite or labeled fire doors (SNB1).

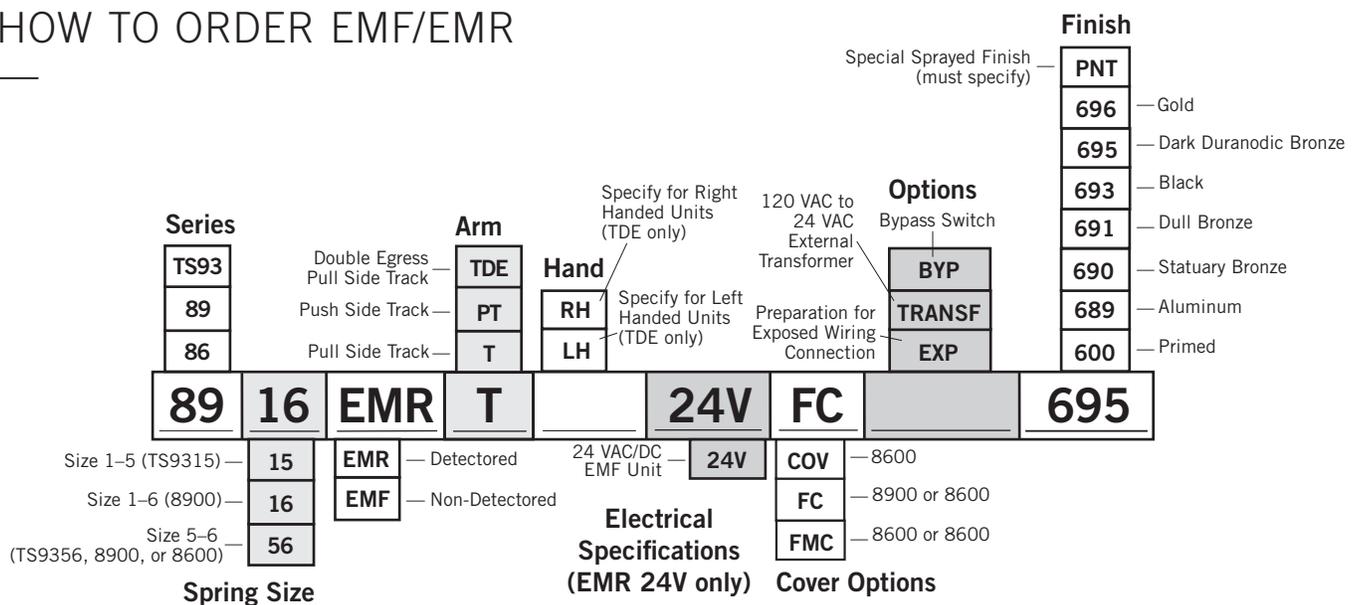
Optional Specifications (8600 EMF)

Door closers to have full plastic cover (FC) or full metal cover (FMC). All devices to have exposed wiring (EXP). All devices to have wireless release of hold open with radio frequency receiver (RFR 433) and hand held transmitter (HHRFT 1 433).

Warranty

For details, refer to **DORMA Limited Warranty** on our website go.dorma.com/terms.

HOW TO ORDER EMF/EMR



NOTE: All combinations of features and options are not available for all models. Please refer to back page for details.

TS93 EMF T (PULL SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width						
Model	Interior/ Exterior	2'-4" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315 EMF T	Interior	•	•	•	•	•	N/A	N/A
TS9356 EMF T	Interior	N/A	N/A	N/A	N/A	•	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 2" door rail required for closer.
- Maximum door swing 170°.
- Hold open range 80°–125°.

TS93 EMF PT (PUSH SIDE INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width					
Model	Interior/ Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315 EMF PT	Interior	•	•	•	•	N/A	N/A
TS9356 EMF PT	Interior	N/A	N/A	N/A	•	•	•

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 4-1/4" top door rail required for closer (5/8" stop).
- Maximum door swing 110°.
- Hold open range 80°–95°.

TS93 EMF TDE (DOUBLE EGRESS INSTALLATION)

4-1/2" x 4-1/2" Butt Hinges

Size Selection Chart		Door Width						
Model	Interior/ Exterior	2'-6" min.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.	
TS9315 EMF TDE	Interior	•	•	•	•	N/A	N/A	
TS9356 EMF TDE	Interior	N/A	N/A	N/A	•	•	•	

- Recommended application.
- N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 2" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–115°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance required between door face and wall for 90° opening.
- Minimum double door width 60" (30" single door).

8900 EMF T (PULL SIDE INSTALLATION)

Technical drawing showing side and cross-section views of the 8900 EMF T door. Dimensions include: 4-1/4 (108) for top rail offset, 23 (584) for total door width, 3-3/8 (86) for handle offset, and 13 (330) for handle length. Cross-section shows 1-1/2 (38) for top rail, 5-1/2 (140) for door thickness, and 2-1/8 (54) for bottom rail. Includes 'Incoming Power' label and '4-1/2" x 4-1/2" Butt Hinges'.

Size Selection Chart		Door Width				
Model	Interior/Exterior	2'-4" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916 EMF T	Interior	•	•	•	•	N/A
8956 EMF T	Interior	N/A	N/A	N/A	•	•

• Recommended application.
N/A Not applicable/application not recommended.

- Minimum 2" overhead clearance required for track assembly.
- Minimum 3" top door rail required for closer.
- Maximum door swing 170°.
- Hold open range 80°–110°.

8900 EMF PT (PUSH SIDE INSTALLATION)

Technical drawing showing side and cross-section views of the 8900 EMF PT door. Dimensions include: 7-7/8 (200) for top rail offset, 23 (584) for total door width, 3/4" Stop Max. for top rail, 1 (25) for handle offset, and 13 (330) for handle length. Cross-section shows 1-1/2 (38) for top rail, 5-3/4 (146) for door thickness, and 2-1/8 (54) for bottom rail. Includes 'Incoming Power' label and '4-1/2" x 4-1/2" Butt Hinges'.

Size Selection Chart		Door Width				
Model	Interior/Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.	
8916 EMF PT	Interior	•	•	•	N/A	
8956 EMF PT	Interior	N/A	N/A	•	•	

• Recommended application.
N/A Not applicable/application not recommended.

- Minimum 6" top door rail required for closer (5/8" stop).
- Maximum door swing 120°.
- Hold open range 80°–95°.

8900 EMF TDE (DOUBLE EGRESS INSTALLATION)

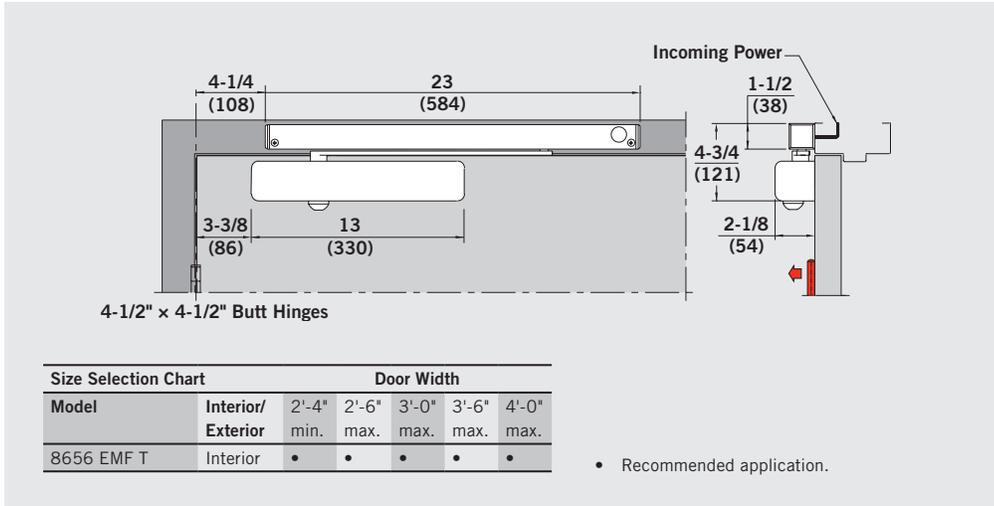
Technical drawing showing side and cross-section views of the 8900 EMF TDE door. Dimensions include: 6-3/8 (162) for top rail offset, 23 (584) for total door width, 3-3/8 (86) for handle offset, and 13 (330) for handle length. Cross-section shows 3-1/2 (89) for top rail, 1-1/2 (38) for door thickness, 6 (152) for door depth, and 2-1/8 (54) for bottom rail. Includes 'Incoming Power', 'Reveal 2 (51) Min.', and '4-1/2" x 4-1/2" Butt Hinges'.

Size Selection Chart		Door Width				
Model	Interior/Exterior	2'-8" min.	3'-0" max.	3'-6" max.	4'-0" max.	
8916 EMF TDE	Interior	•	•	•	N/A	
8956 EMF TDE	Interior	N/A	N/A	•	•	

• Recommended application.
N/A Not applicable/application not recommended.

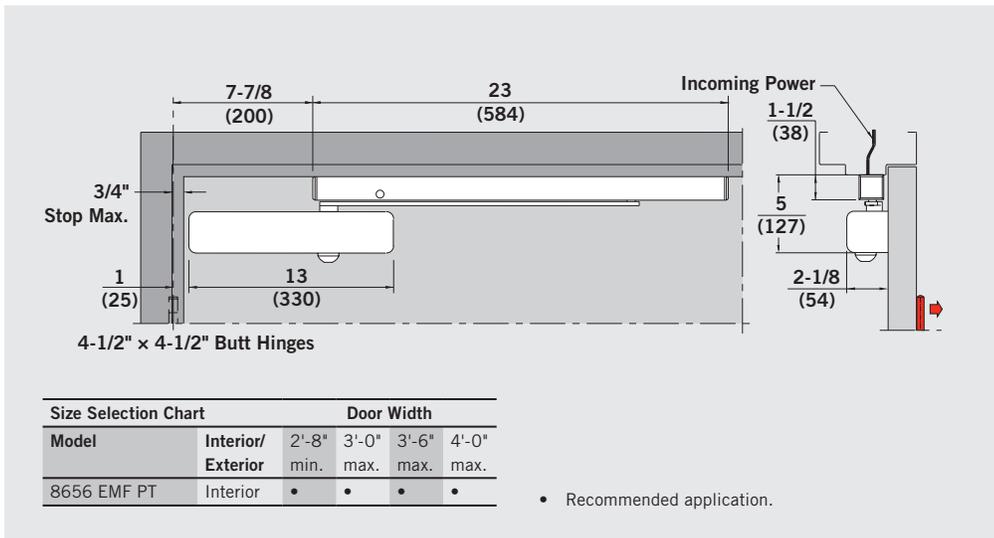
- Minimum 2" overhead clearance required for track assembly.
- Minimum 3-1/2" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–120°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance between door face and wall for 90° opening.
- Minimum double door width 60" (30" single door).

8600 EMF T (PULL SIDE INSTALLATION)



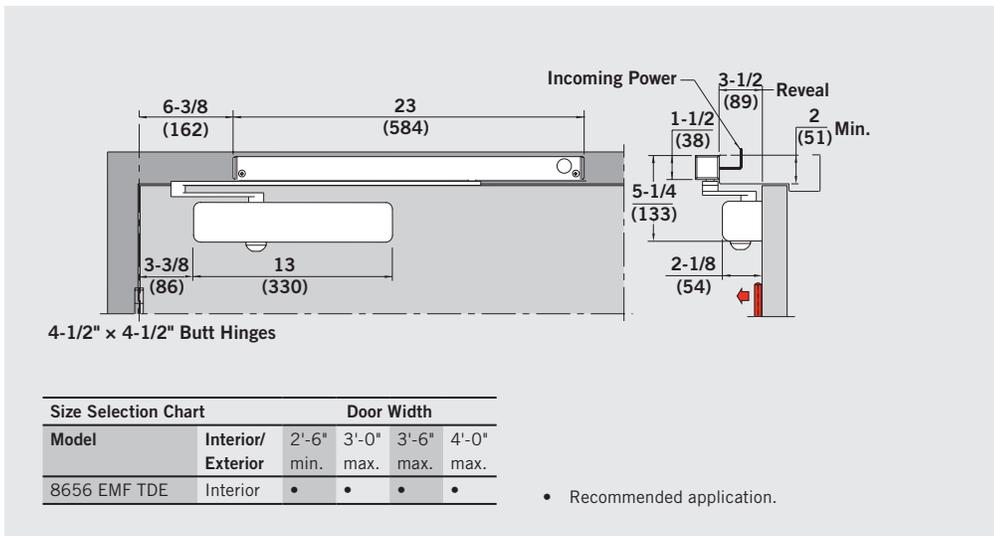
- Minimum 2" overhead clearance required for track assembly.
- Minimum 2-1/2" top door rail required for closer.
- Maximum door swing 170°.
- Hold open range 80°–115°.

8600 EMF PT (PUSH SIDE INSTALLATION)



- Minimum 5-1/2" top door rail required for closer (5/8" stop).
- Maximum door swing 120°.
- Hold open range 80°–95°.

8600 EMF TDE (DOUBLE EGRESS INSTALLATION)



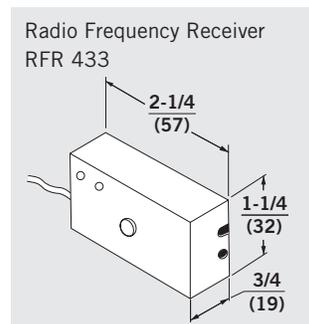
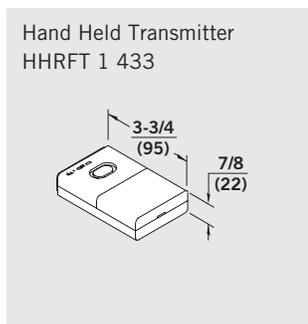
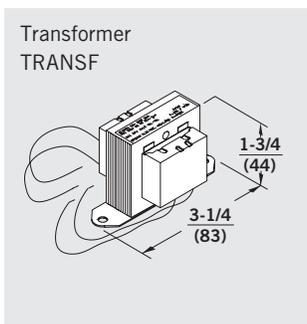
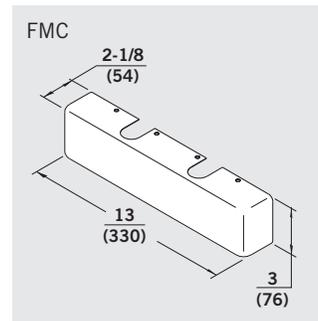
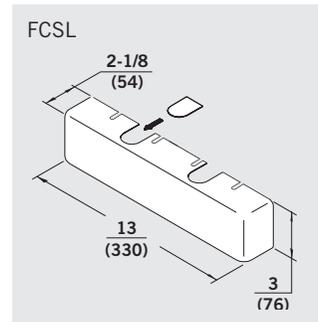
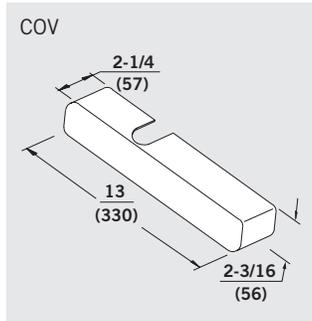
- Minimum 2" overhead clearance required for track assembly.
- Minimum 3" top door rail required for closer.
- Maximum door swing 130°.
- Hold open range 80°–120°.
- Accommodates 3-1/2" reveal. Consult factory for others.
- Minimum 4-1/2" arm clearance between door face and wall for 90° opening.
- Minimum double door width 60" (30" single door).

EMF/EMR OPTIONS/ACCESSORIES

Options		TS93	8900	8600	
BYP	Concealed switch to release hold open function	•	•	•	EMF
		•	•	•	EMR
TRANSF	Transformer for 120 VAC applications (120 to 24 VAC). One transformer per unit. Fits standard 4" x 4" electrical box.	-	-	-	EMF
		•	•	•	EMR
EXP	Exposed wiring preparation for surface wiring	•	•	•	EMF
		•	•	•	EMR
Accessories					
COV	Slim plastic slotted cover for door closer (standard with 8600 unit)	-	-	•	EMF
		-	-	•	EMR
FCSL	Full plastic slotted cover for door closer	-	•	•	EMF
		-	•	•	EMR
FMC	Full metal cover for door closer	-	•	•	EMF
		-	•	•	EMR
SN1	1/4-20 sex nuts (4) for 1-3/4" door	-	•	-	EMF
		-	•	•	EMR
SN3	10-32 sex nuts (4) for 1-3/4" door	•	-	-	EMF
		•	-	-	EMR
SNB1	1/4-20 sex nuts w/machine screws (4) for 1-3/4" door	-	-	•	EMF
		-	-	-	EMR
SD2	Replacement smoke detector module	-	-	-	EMF
		•	•	•	EMR
RFR 433	Radio frequency receiver for wireless release of hold open (433 Mhz.)	•	•	•	EMF
		•	•	•	EMR
HHRFT 1 433	Hand held transmitter, transmits signal to the RFR 433 receiver (433 Mhz.)	•	•	•	EMF
		•	•	•	EMR

NOTE: When using the EMR or EMF unit with wide throw or swing clear hinges, consult factory for details.

• / • Yes - / - No



www.dorma.com



DORMA USA, Inc.
Dorma Drive, Drawer AC
Reamstown, PA 17567
Tel: 800 523 8483
Fax: 800 274 9724
archdw@dorma-usa.com

DORMA Canada
1680 Courtney Park Drive, Unit 13
Mississauga, Ontario L5T 1R4
Tel: 800 387 4938
Fax: 905 670 5850
sales@dormacanada.com

DORMA Mexico
Calle Sur 110 no. 63, Col. Tolteca
01150 México, D.F.
Tel: 5255 5272 6937
Fax: 5255 5272 6948
operacion@dorma.com.mx