GEZE swing door drive Slimdrive EMD

Electromechanical swing door drive for 1 and 2-leaf single-action doors

The electromechanical swing door drive GEZE Slimdrive EMD stands out due to its numerous areas of application. The compact drive is only 7 cm high and can move large and heavy internal and external doors comfortably and quietly. This makes the Slimdrive EMD the ideal solution wherever efficiency has to be coupled with silent running. State-of-the-art control technology combined with a low-wear and maintenance-free high-power motor guarantees reliable operation even for doors which are heavily frequented. All door parameters e.g. opening and closing speed as well as latching action, can be optimally adapted. Manual door opening can be supported by the drive (servo function) and ensures that even heavy doors can be opened more easily manually. The push & go function can be activated on request, i.e. the door is only slightly opened by hand and the automatic actuation opens the door completely. In low-energy mode, the drive moves the door at reduced speed. The optional CAN interface can be used to meet demanding requirements e.g. air lock control.

GEZE Slimdrive EMD

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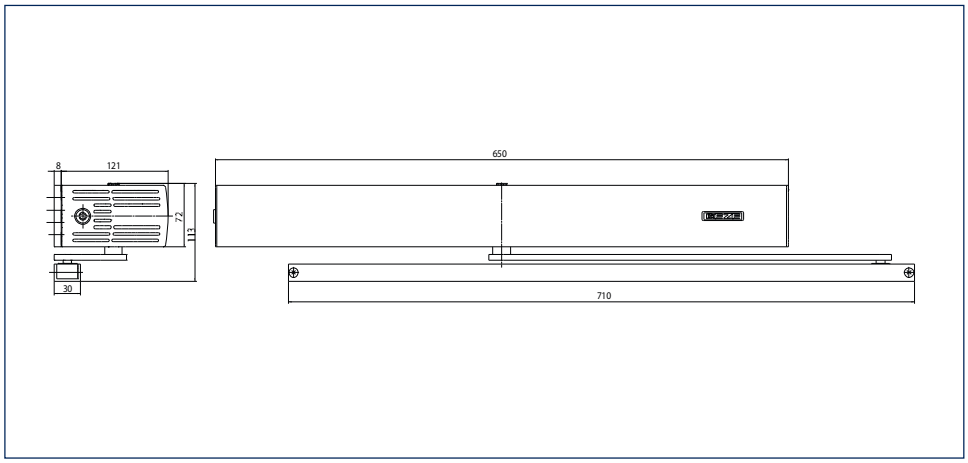


Application range

- Internal and external doors
- Railway stations and airports
- Hotel and restaurants
- Hospitals and nursing homes for the elderly
- Educational institutions e.g. schools, nursery schools, day care centres
- Leisure facilities, e.g. swimming baths, thermal baths, sport and fitness centres
- Administration and public buildings
- Food industry

GEZE SLIMDRIVE EMD

Technical data

Product features	GEZE Slimdrive EMD	GEZE Slimdrive EMD-F	GEZE Slimdrive EMD F-IS	GEZE Slimdrive EMD Invers
Height	70 mm			
Width	650 mm			
Depth	121 mm			
Leaf weight (max.) 1-leaf	180 kg	230 kg		
Hinge size (min.-max.)* 2-leaf	1500 – 2800 mm			
Leaf width (min.-max.)*	750 – 1400 mm			
Soffit depth (max.)*	300 mm			
Door overlap (max.)*	30 mm			
Drive type	Electromechanical			
Door opening angle (max.)*	115 °			
Spring pre-load		EN3 – EN6		
Left-hand	●	●	●	●
Right-hand	●	●	●	●
Transom installation opposite hinge side with link arm	●	●	●	●
Transom installation opposite hinge side with guide rail	●	●	●	●
Transom installation hinge side with guide rail	●	●	●	●
Door leaf installation opposite hinge side with guide rail	-	-	-	-
Door leaf installation hinge side with guide rail	●	●	●	●
Door leaf installation hinge side with link arm	-	-	-	-
Mechanical latching action	-	●	●	-
Electrical latching action	●	●	●	●
Electrical closing sequence control	●	●	●	●
Mechanical closing sequence control	-	-	●	-
Disconnection from mains	Cable plug connection			
Activation delay (max.)	20 S			
Operating voltage	230 V			
Frequency of supply voltage	50 – 60 Hz			
Capacity rating	230 W			
Power supply for external consumers (24 V DC)	1200 mA			
Temperature range	-10 – 50 °C			
Enclosure rating	IP 20			
Operating modes	Off, Automatic, Permanently open, Shop closing, Night			
Type of function	Fully automatic			
Automatic function	●	●	●	●
Low-energy function	●	●	●	●
Servo function	-	●	●	●
Key function	●	●	●	●
Inverse function (opening by spring force)	-	-	-	●
Draught-proofing	●	●	●	●
Obstruction detection	●	●	●	●
Automatic reversing	●	●	●	●
Push & go	adjustable			
Operation	Programme switch DPS, Programme switch MPS, Programme switch TPS, Programme switch integrated in the drive			
Parameter setting	Programme switch DPS			
CAN interface	optional			
Approvals	DIN 18650	DIN 18650 DIN 18263-4	DIN 18650 DIN 18263-4 Closing sequence cont-roller tested acc. to EN 1158	DIN 18650
Suitable for fire proof doors	-	●	●	-

● = YES
- = NOT AVAILABLE
* = DEPENDING ON THE TYPE OF INSTALLATION

NOTE: THE MAXIMUM POSSIBLE LEAF WEIGHT IN RELATION TO LEAF WIDTH CAN BE FOUND IN THE CHAPTER ON AREAS OF APPLICATION (DIAGRAMS)!

Overview of torques Slimdrive EMD-F

Type of Installation	Transom Installation hinge side (min.-max.)	Door leaf Installation hinge side (min.-max.)	Transom Installation opposite hinge side (min.-max.)	
Linkage element	guide rail	guide rail	guide rail	link arm
Spring pre-load Closer size EN 1154	3 - 5	3 - 5	3 - 5	4 - 6
Closing torques	20 - 45 Nm	17 - 43 Nm	20 - 45 Nm	35 - 70 Nm
Opening torques, automatic	122 - 97 Nm	125 - 96 Nm	115 - 90 Nm	max. 150 Nm
Opening torques, manual	45 - 66 Nm	50 - 73 Nm	42 - 65 Nm	61 - 88 Nm
Note: For automatic mode, the doors must be equipped with suitable hinges. A door stop is necessary.				

Hinge dimensions for double-leaf systems (with / without IS)

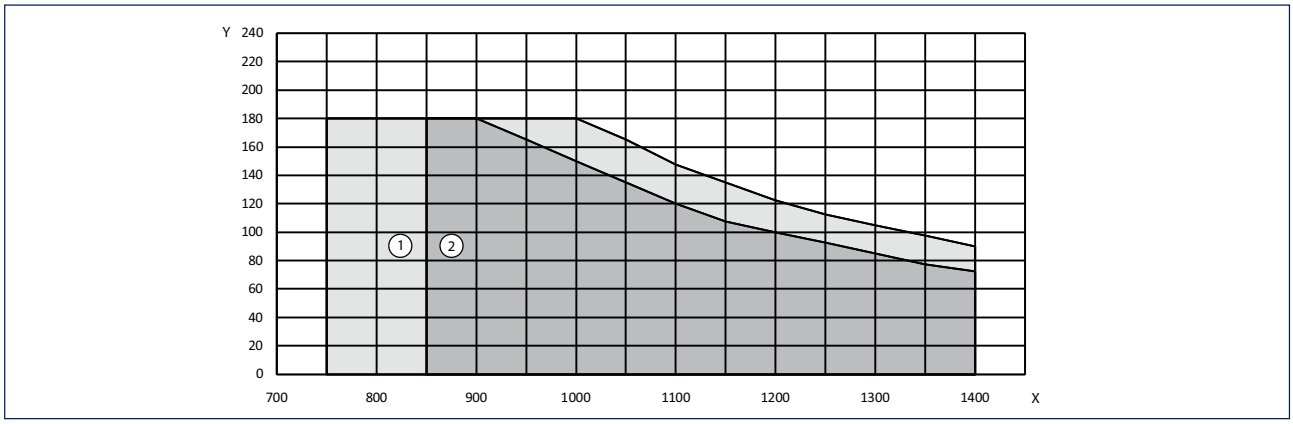
Type of installation	Hinge clearance		
Transom installation hinge side with guide rail	min. 1700 mm	max. 2500 mm	max. 2800 mm, not fire protection doors
Transom installation opposite hinge side with guide rail	min. 1700 mm	max. 2500 mm	max. 2800 mm, not fire protection doors
Transom installation opposite hinge side with link arm	min. 1500 mm	max. 2800 mm	max. 2800 mm
Single-leaf widths depending on leaf weight, see diagrams for areas of application			

Areas of application

Note

In low-energy mode the swing door drive moves at reduced speed and thus meets the safety requirement of DIN 18650. The use of safety sensors to safeguard the system is only necessary in individual cases, taking the user group into account. In automatic mode, however, the swing area of the door must always be safeguarded with safety sensors.

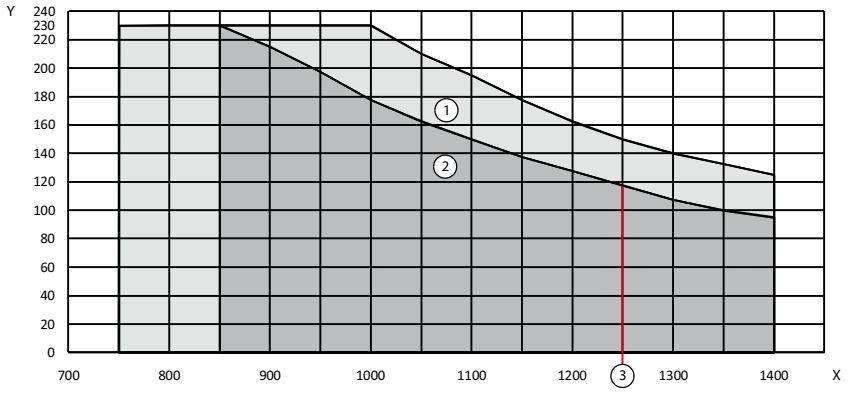
Slimdrive EMD



X = Door width (mm)
Y = Door weight (kg)
1 = Link arms
2 = Guide rail

GEZE SLIMDRIVE EMD

Slimdrive EMD-F



X = Door width (mm)
Y = Door weight (kg)
1 = Link arms
2 = Guide rail
3 = Use of fire protection limit for guide rail

Note

We recommend the use of link arms for external doors. Wind loads and underpressure or excess pressure must also be taken into account. Dimensions marked by an asterisk (*) are valid for direct attachment.

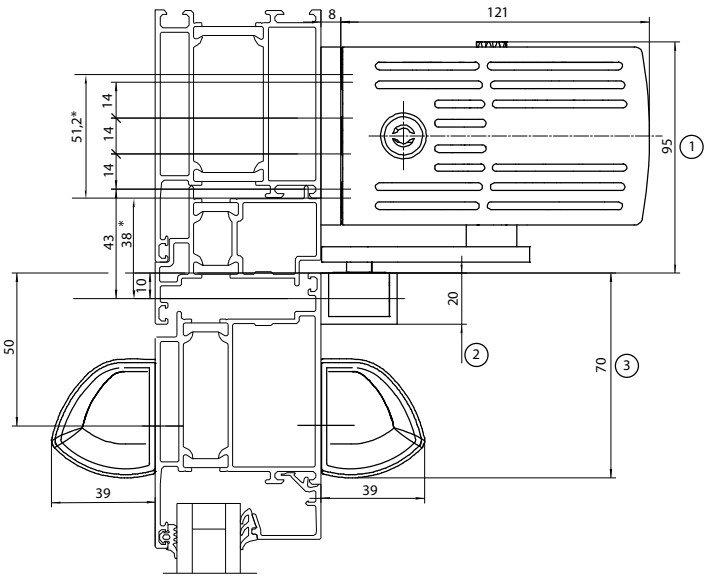
Note: Diagram shows left-hand (ISO 6), right-hand (ISO 5) is reversed (mirror-image).

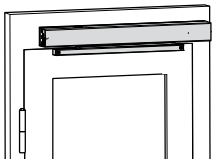
Transom installation with guide rail on the hinge side, single-leaf

Drawing no. 70106-ep01

Door overlap (max.) 30 mm

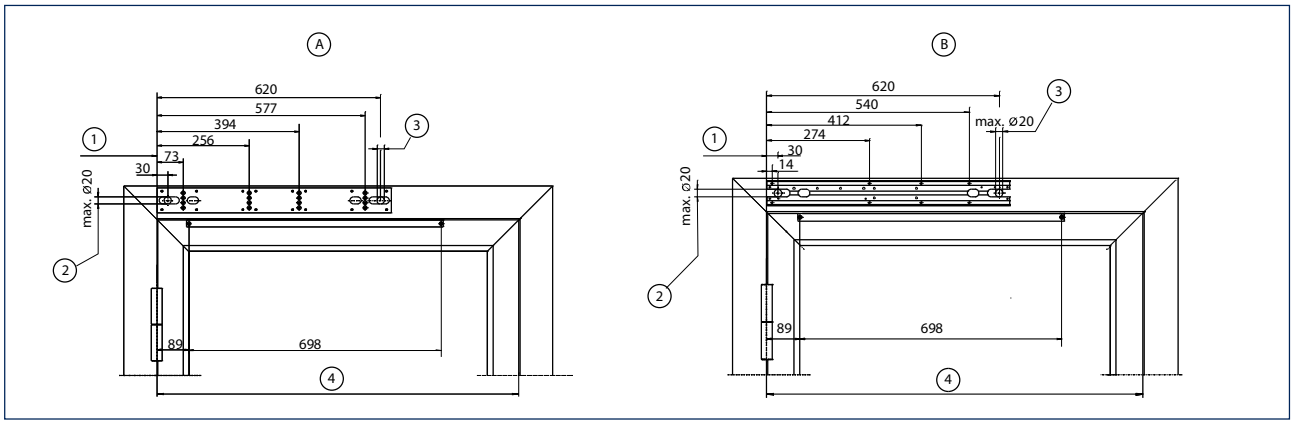
Door opening angle (max.) 105°





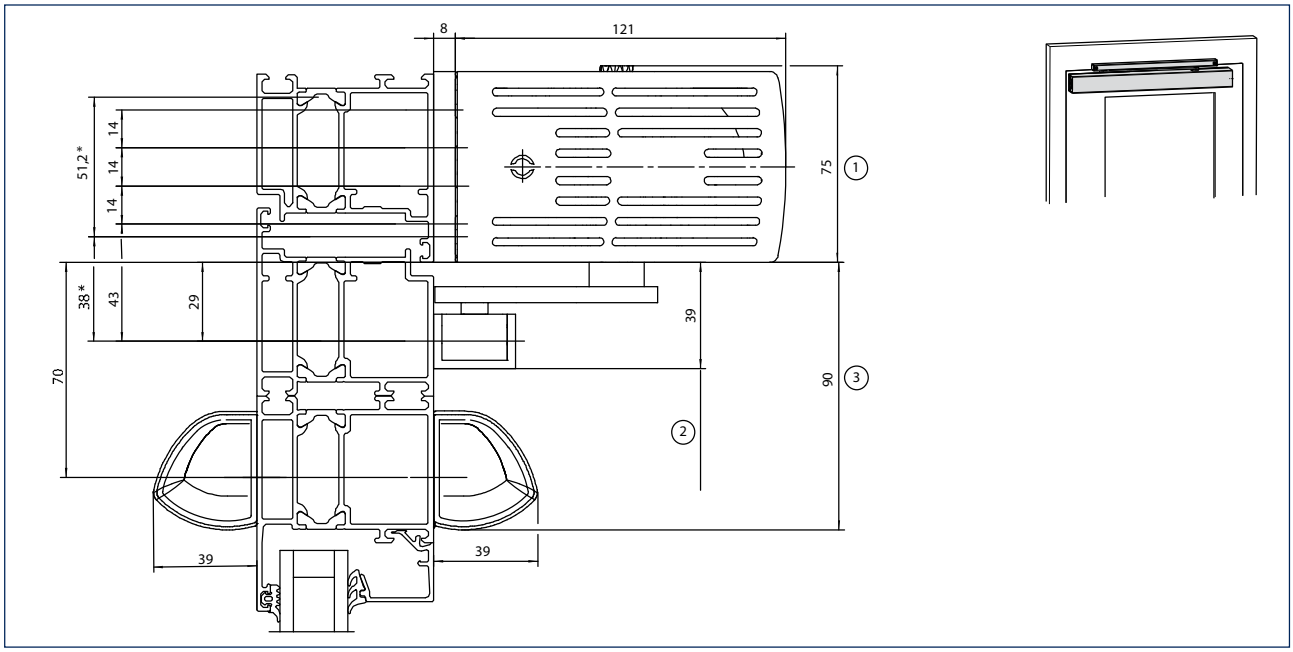
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Transom installation with guide rail on the opposite hinge side, single-leaf
Drawing no. 70106-ep02
Soffit depth (max.) -30 to +50 mm
Door opening angle (max.) 105°



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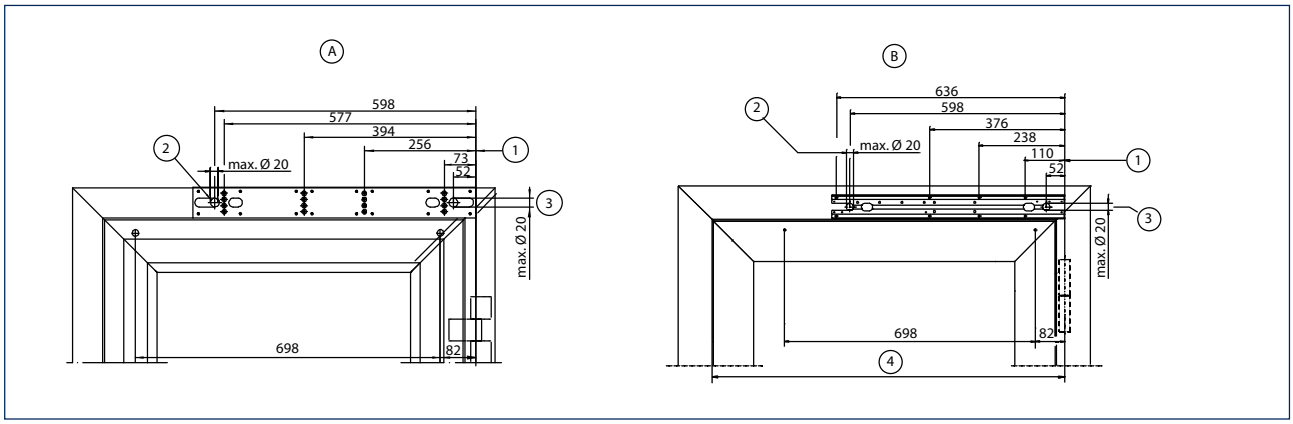
2 = Guide rail space requirement
3 = GC 338 space requirement

GEZE SLIMDRIVE EMD

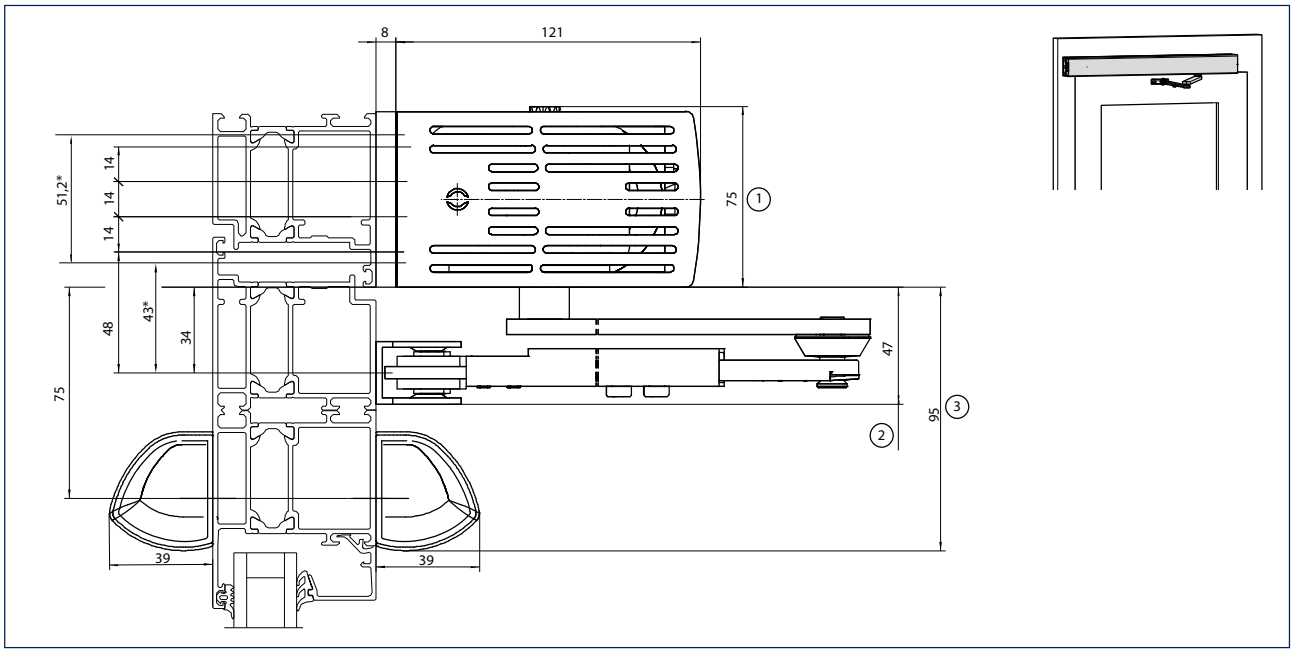
Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

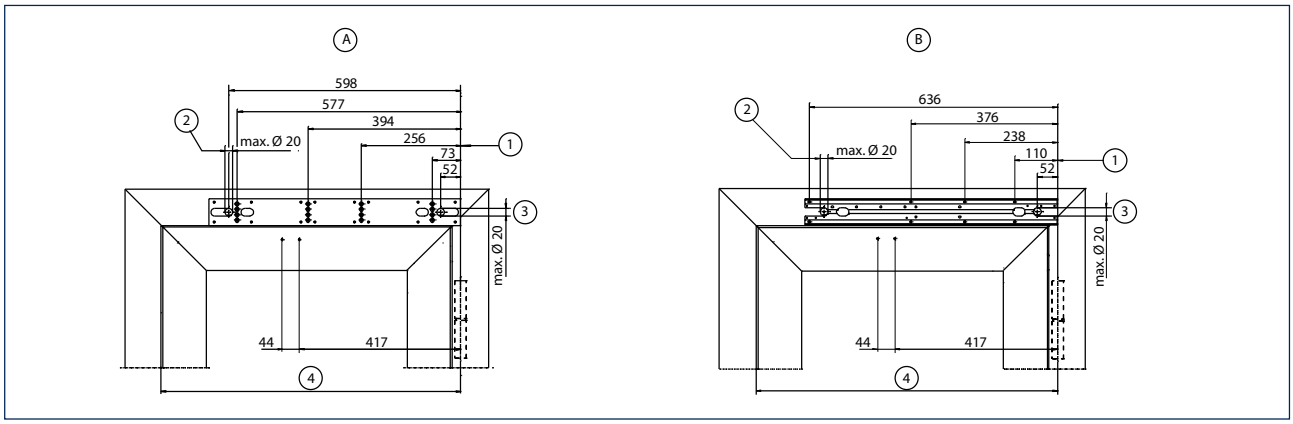
Transom installation with link arm on the opposite hinge side, single-leaf

Drawing no. 70106-ep03
Soffit depth (max.) 0-100 mm, 100-200 mm, 200-300 mm
Door opening angle (max.) 110°



* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Link arm space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



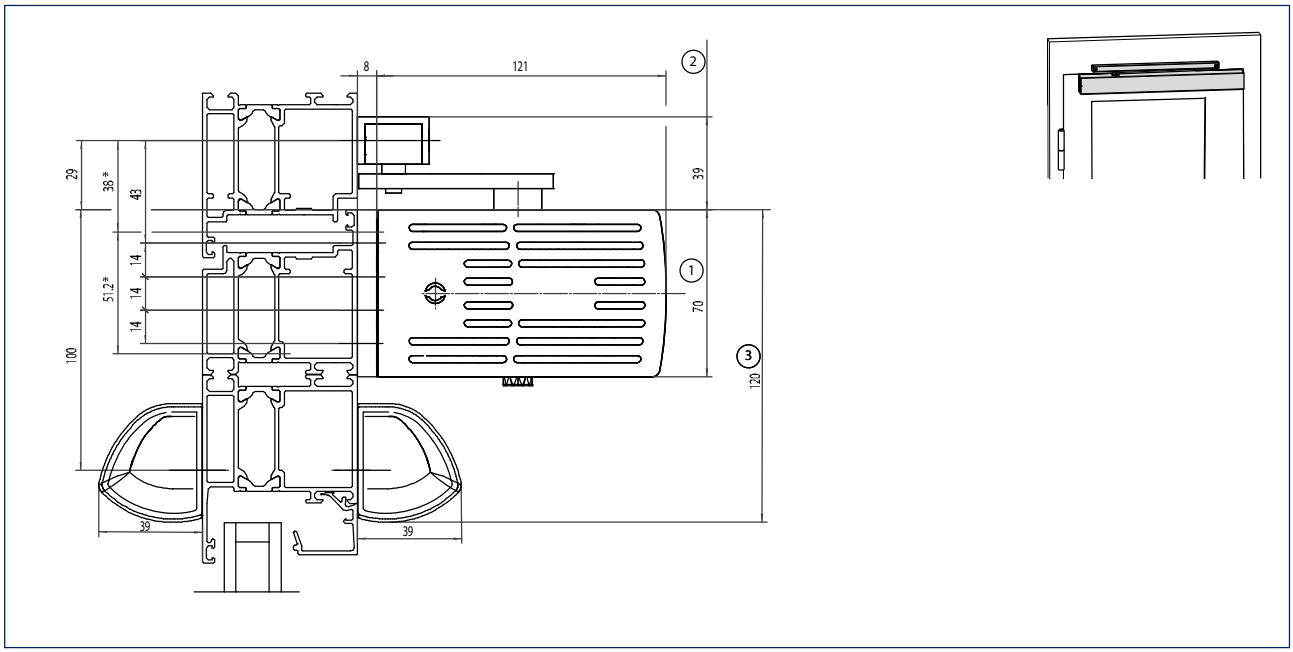
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Door leaf installation with guide rail on the hinge side, single-leaf

Drawing no. 70106-ep04

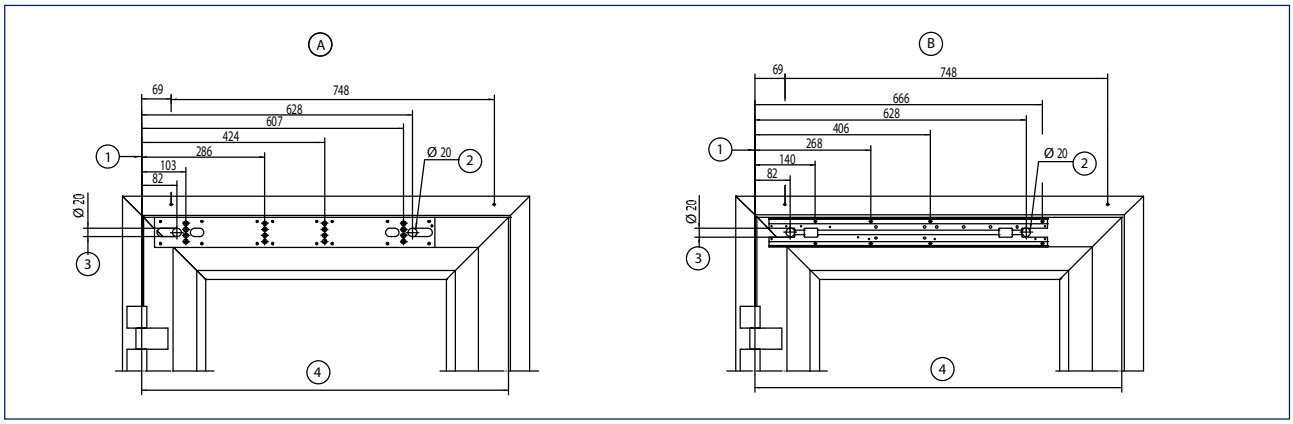
Door overlap (max.) 30 mm

Door opening angle (max.) 115°



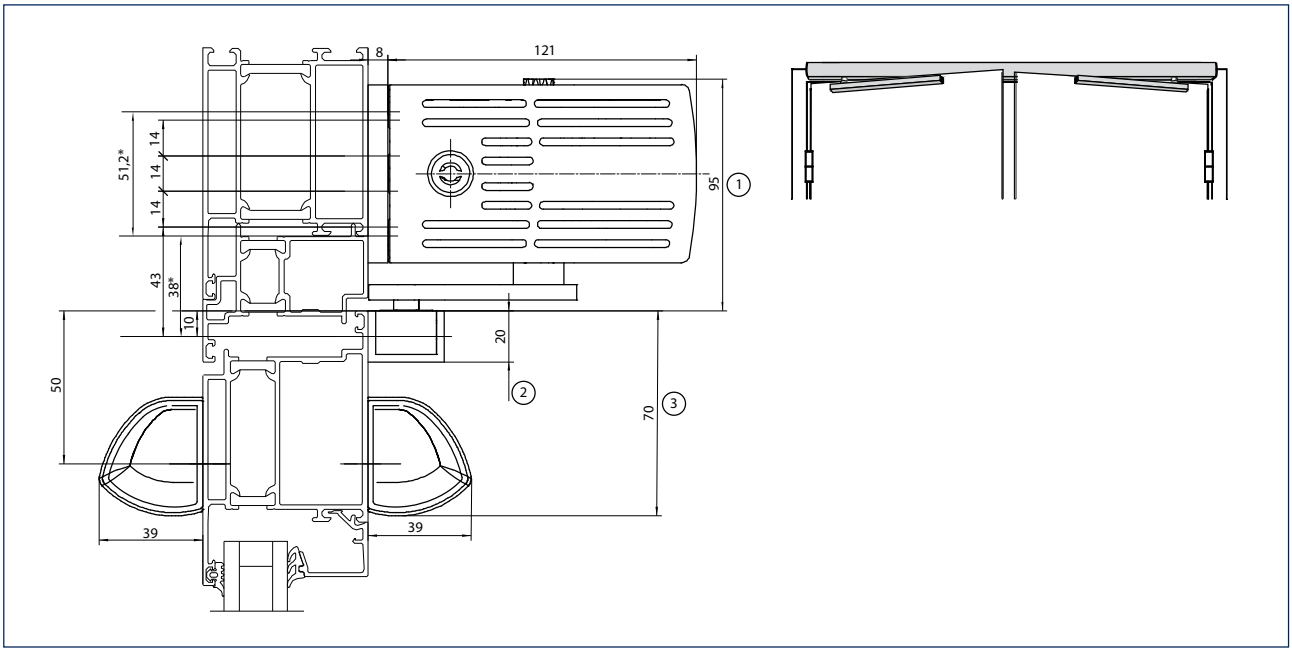
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



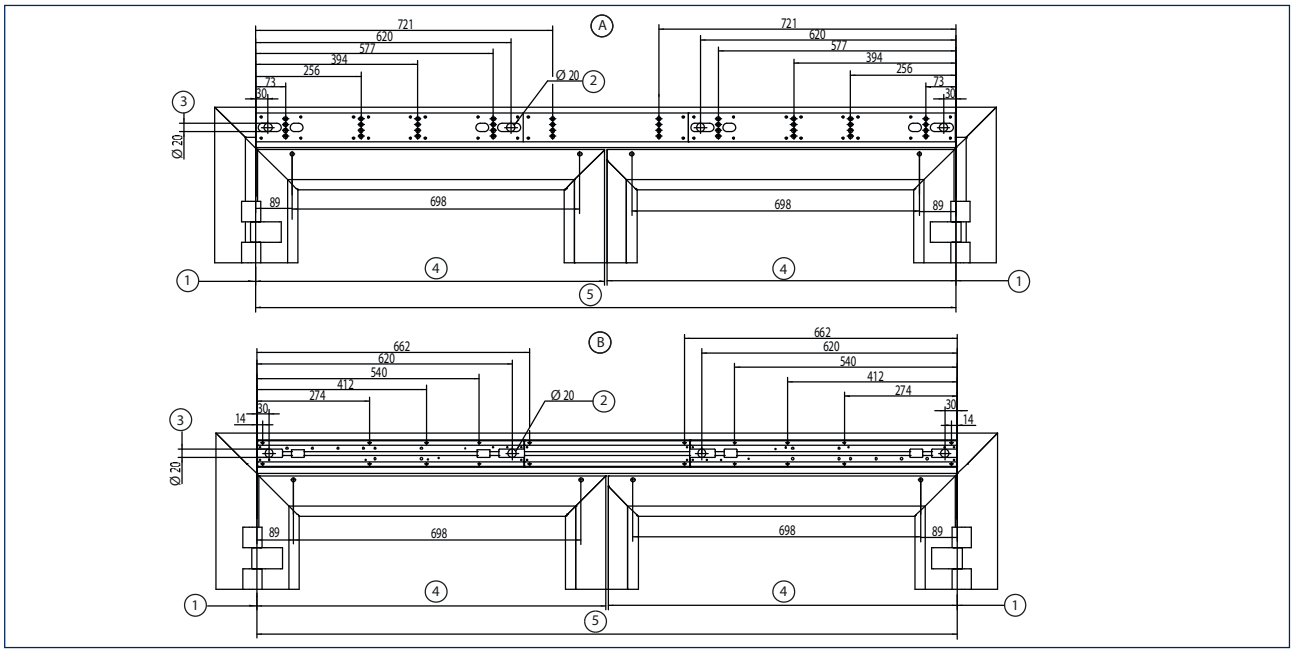
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Transom installation with guide rail on the hinge side, double-leaf
Drawing no. 70106-ep21



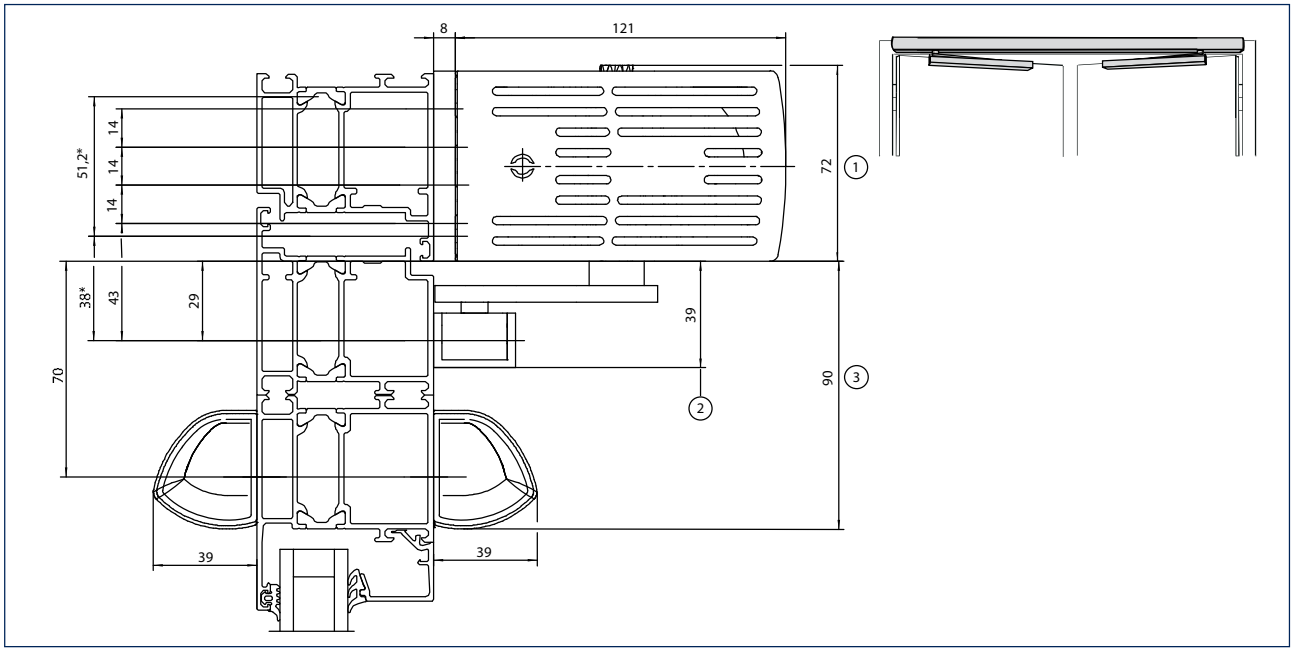
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



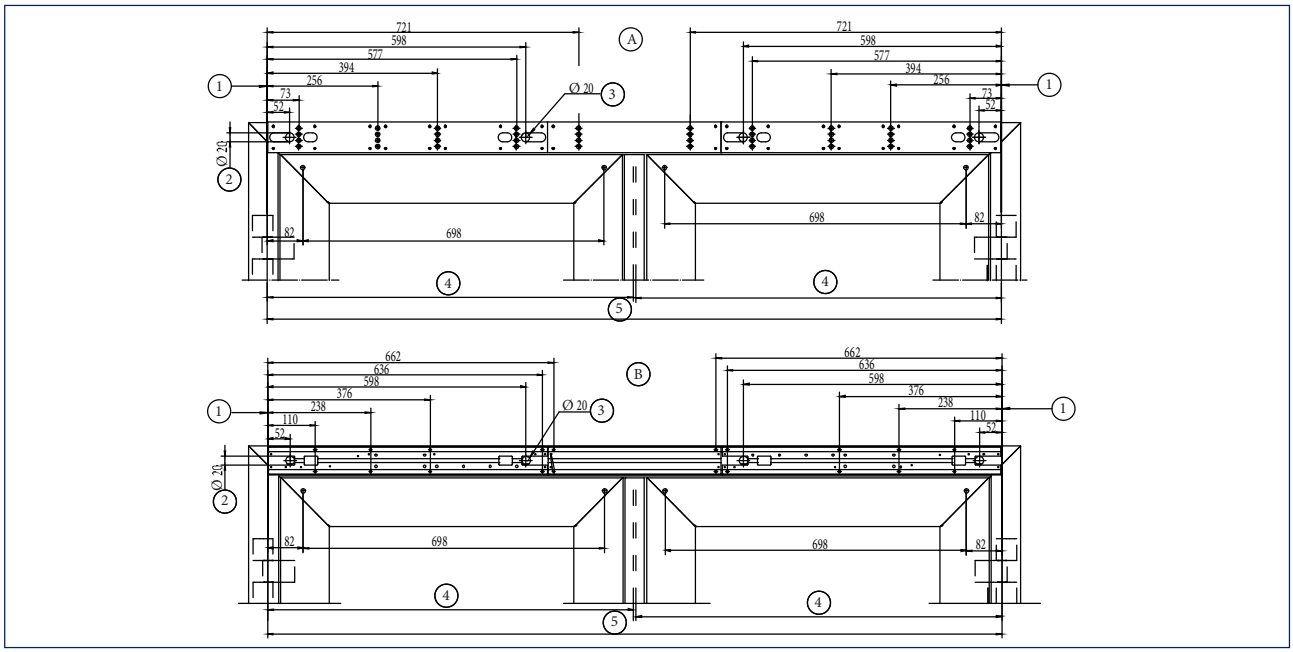
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

Transom installation with guide rail on the opposite hinge side, double-leaf
Drawing no. 70106-ep22



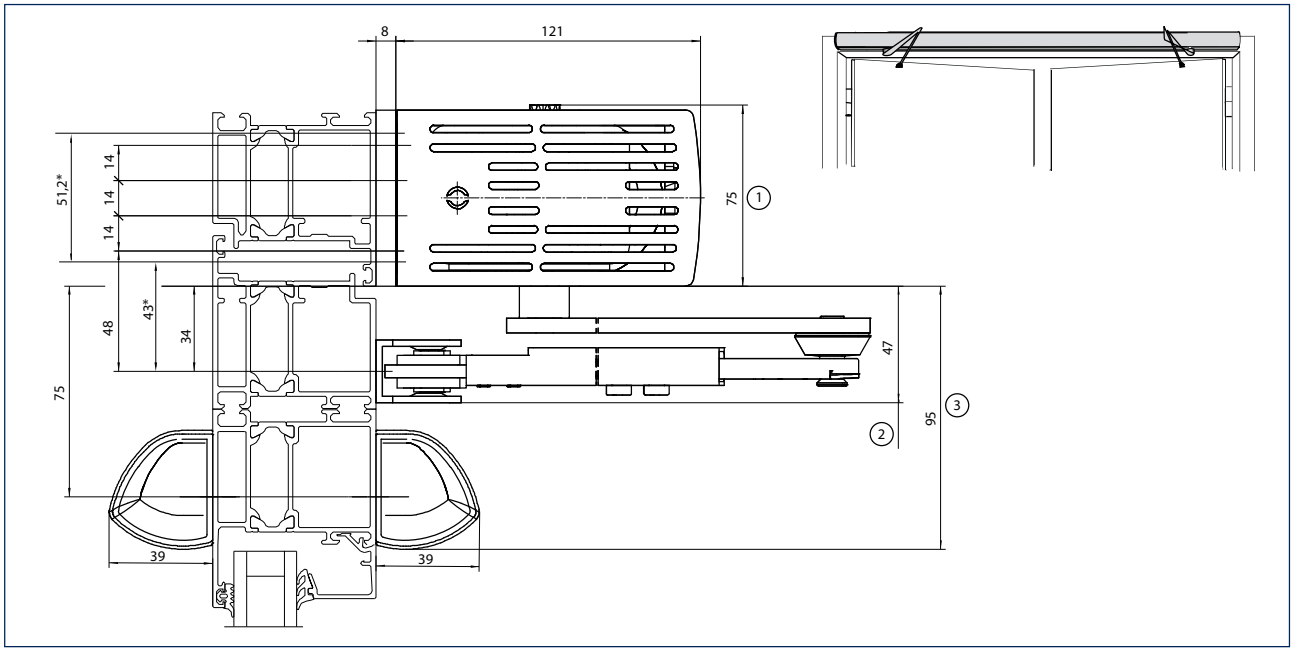
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



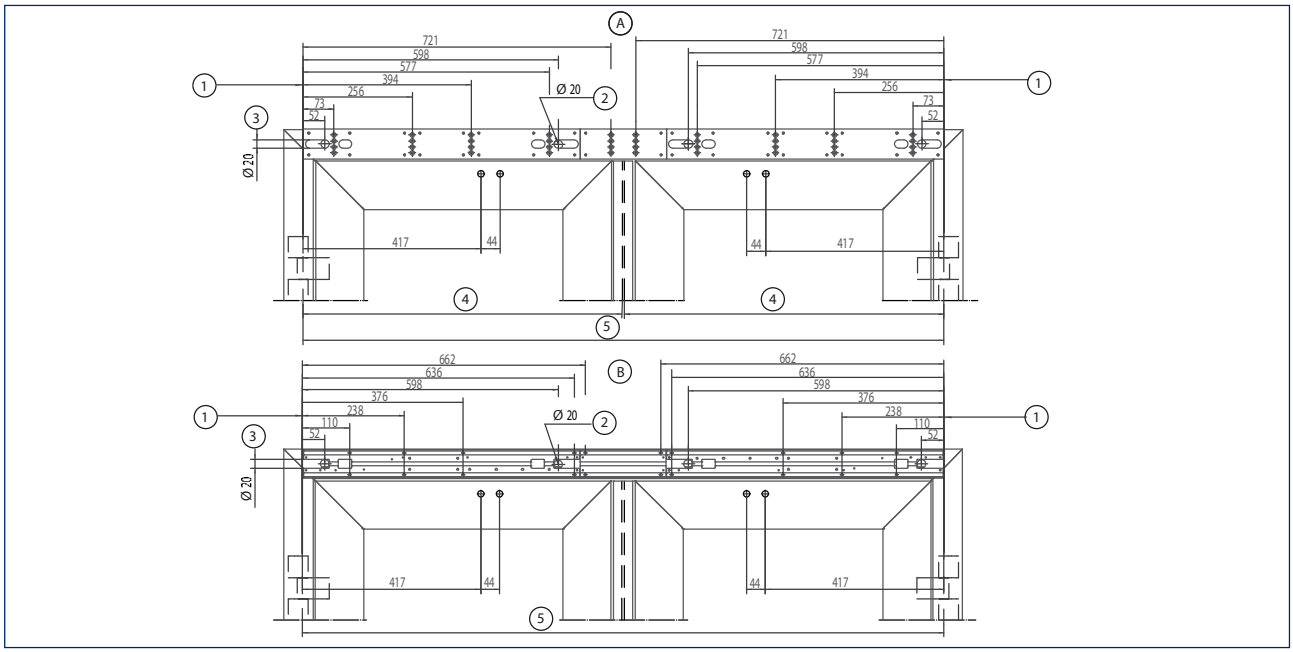
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

Transom installation with link arm on the opposite hinge side, double-leaf
Drawing no. 70106-ep23



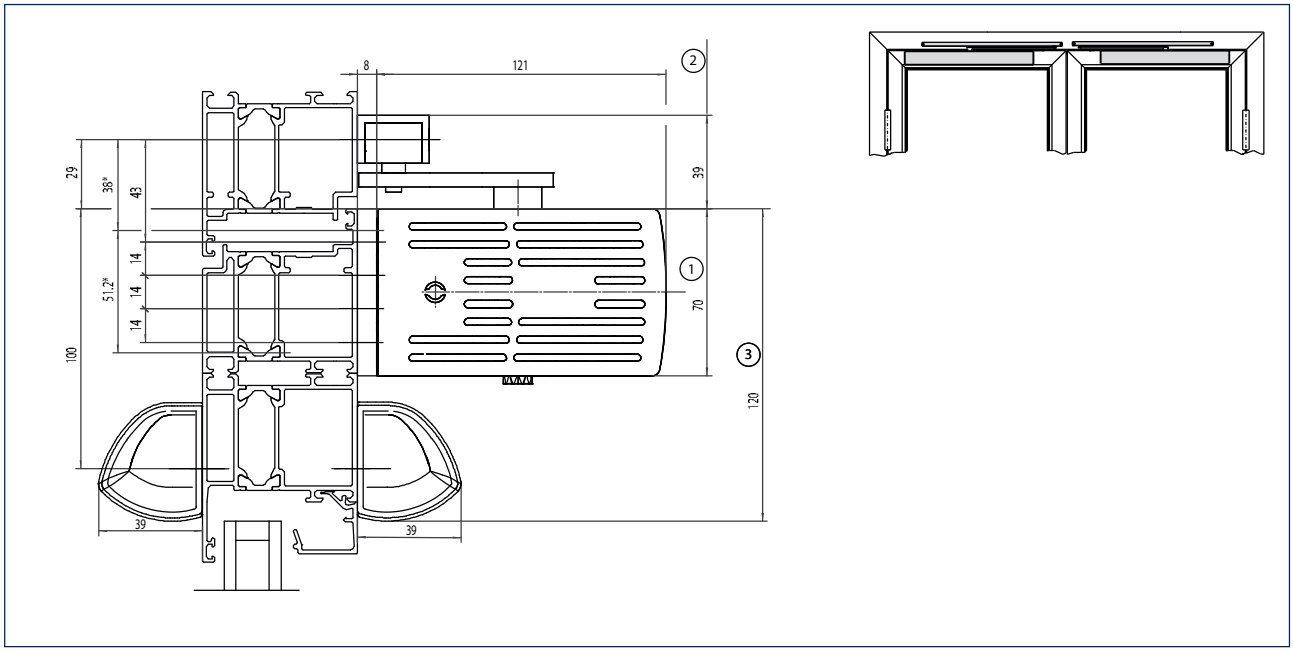
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Link arm space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

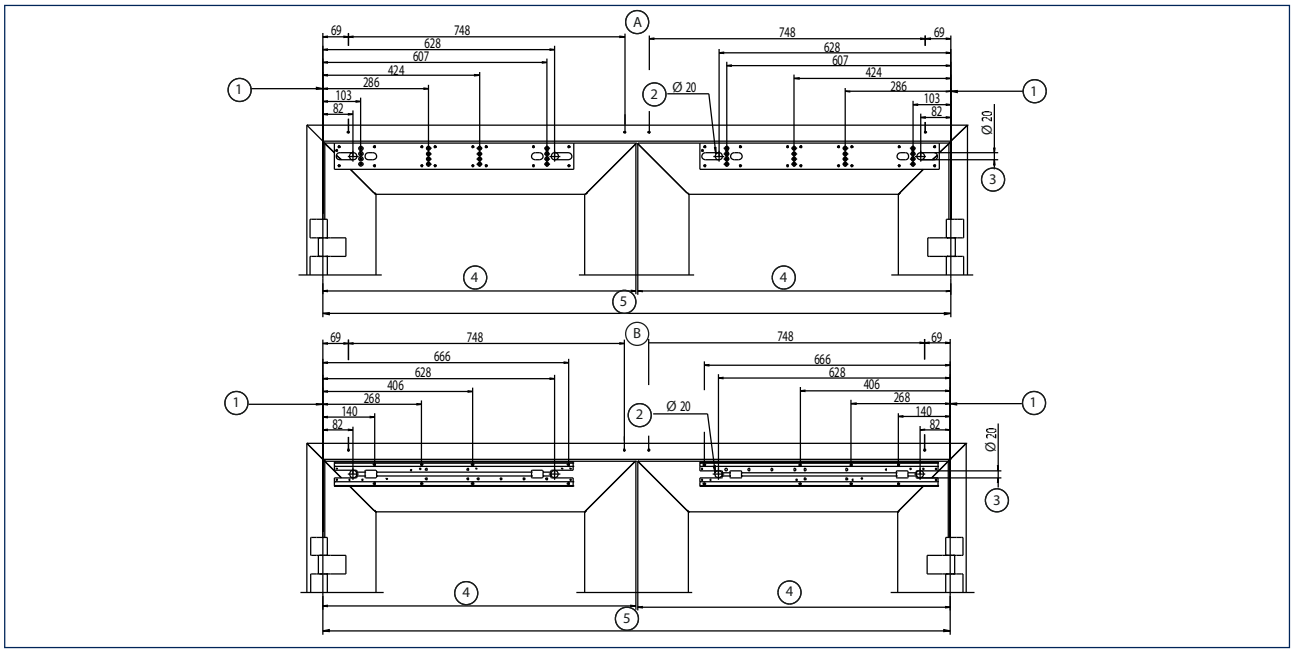
Door leaf installation with guide rail on the hinge side, double-leaf
Drawing no. 70106-ep24



* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

GEZE SLIMDRIVE EMD

Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

GEZE Slimdrive EMD

Legend for the cable diagrams

Cable

1 = NYM-J 3 x 1.5 mm^2
2 = J-Y(ST)Y 1 x 2 x 0.6 LG
3 = J-Y(ST)Y 2 x 2 x 0.6 LG
4 = J-Y(ST)Y 4 x 2 x 0.6 LG
5 = LiYY 2 x 0.25 mm^2
6 = LiYY 4 x 0.25 mm^2
7 = Scope of supply sensor strip or LiYY 5 x 0.25 mm^2
8 = Route empty pipe with pull-wire inner diameter 10 mm

Notes

- Cable diagrams can also be prepared for specific building projects after receipt of order
- Version of standard cable diagrams in accordance with GEZE specifications
- Cable routing according to VDE 0100
- Allow the cable for the drive to project at least 1500 mm out of the wall

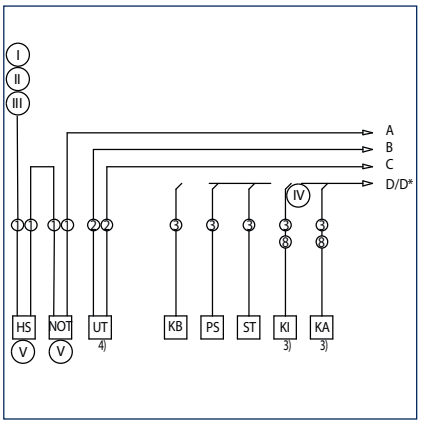
1) Door transmission cable (including in the scope of supply for sensor strip), cable routing through a hole in the door leaf is not permitted for fire protection doors.
2) Cable exit for door drive, see installation drawings for Slimdrive EMD/EMD-F 70106-ep01 to -ep04
3) Cable including in the scope of supply for the sensor
4) Install in the direct vicinity of the door
5) Mains connection box WxHxD min. 65 x 65 x 57 with PG-11 duct, on site
6) Low-voltage connection box WxHxD min. 94 x 65 x 57 with PG-11 duct, on site
7) E.g. door transmission cable, 8-wire, art. no. 066922
8) Branch box, on site

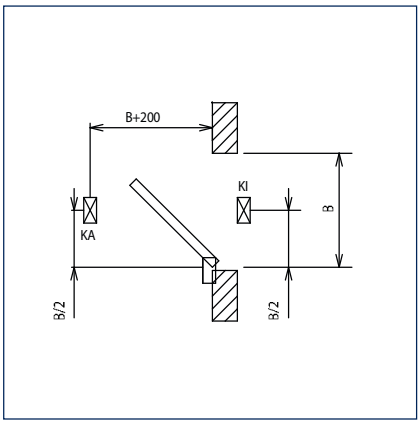
Abbreviations

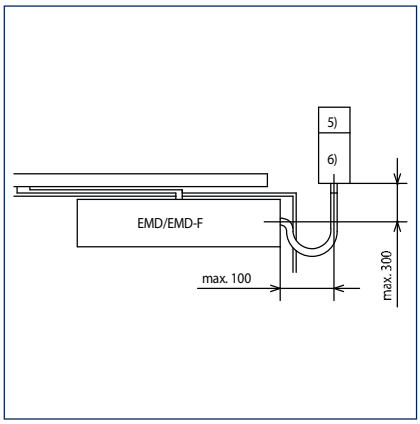
HS = Main switch
NOT = Emergency-stop switch

UT = Circuit breaker CLOSE DOOR (only with F variant)
KB = Contact sensor authorised
PS = Programme switch
ST = Emergency stop
KI = Contact sensor inside
KA = Contact sensor outside
TOE = Door opener
RM = Bar message
RS = Smoke switch (only with F variant)
RSZ = Smoke switch control unit (only with F variant)
TS = Door closer
MK = Magnetic contact

GEZE SLIMDRIVE EMD

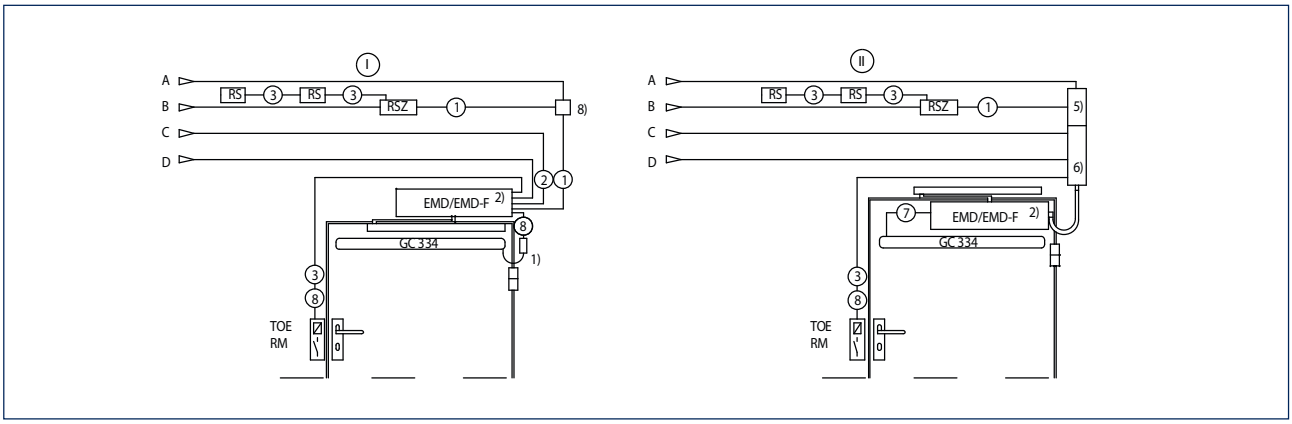




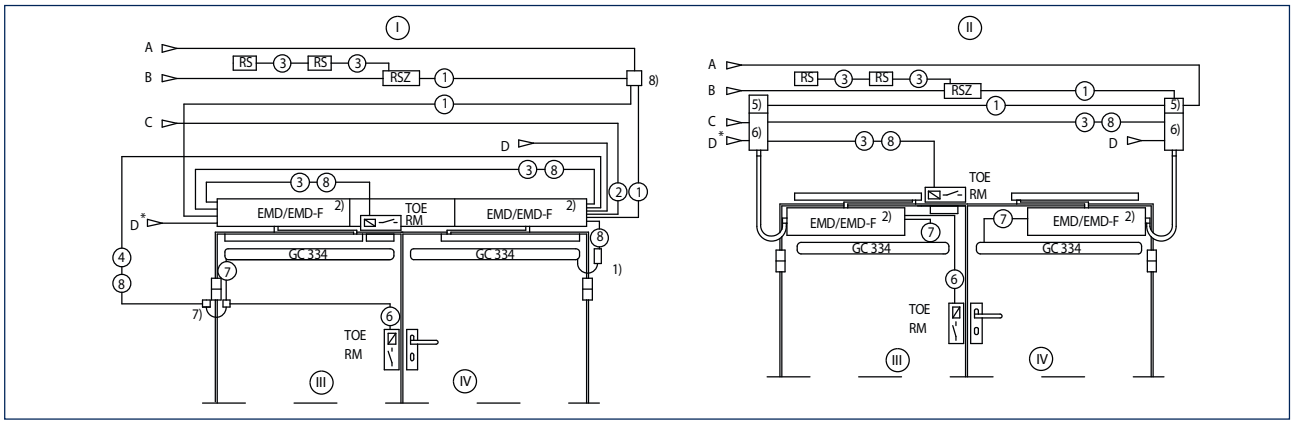


I = Mains supply cable 230 V / 50 Hz
II = Fuse 10 A
III = Connected load 230 W, 1 A 1-leaf, 2-leaf with manual fixed leaf, connected load 460 W, 1 A for 2-leaf
IV = And / Or
V = Option

1-leaf



2-leaf



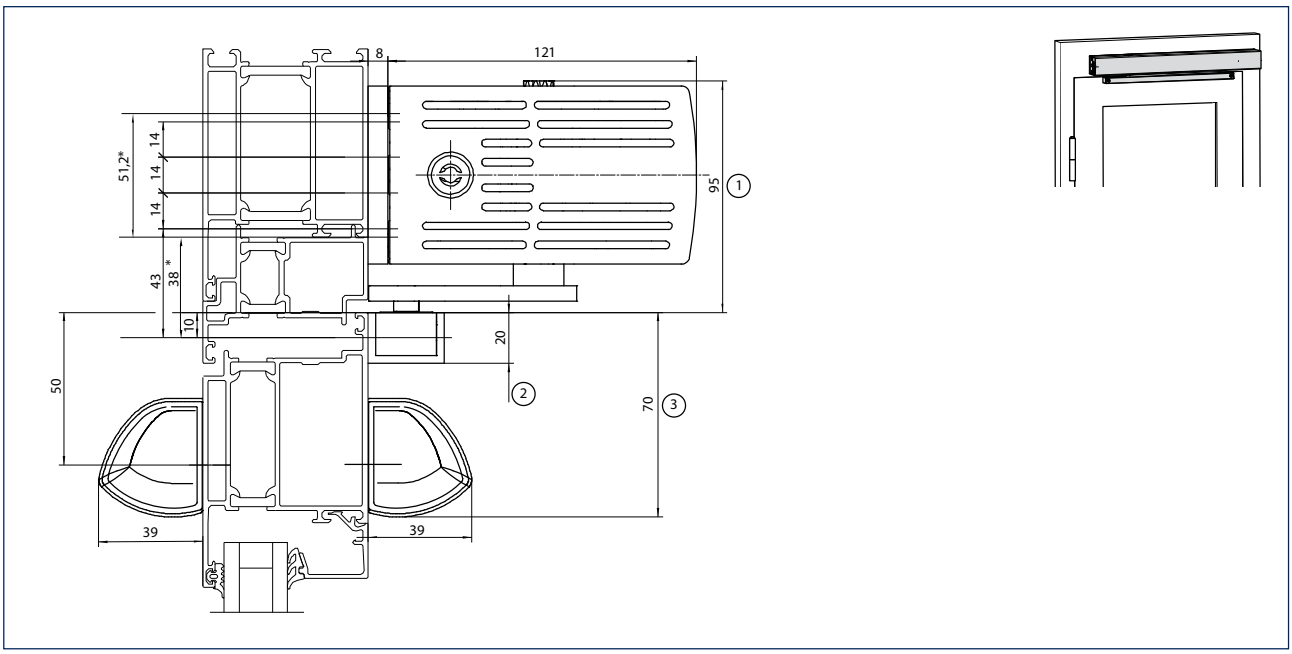
I = Transom installation
II = Door leaf installation
III = Fixed leaf
IV = Active leaf

GEZE swing door drive Slimdrive EMD Invers

Electromechanical swing door drive for 1-leaf and 2-leaf single-action doors (RWA fresh air supply and doors in emergency exit routes)

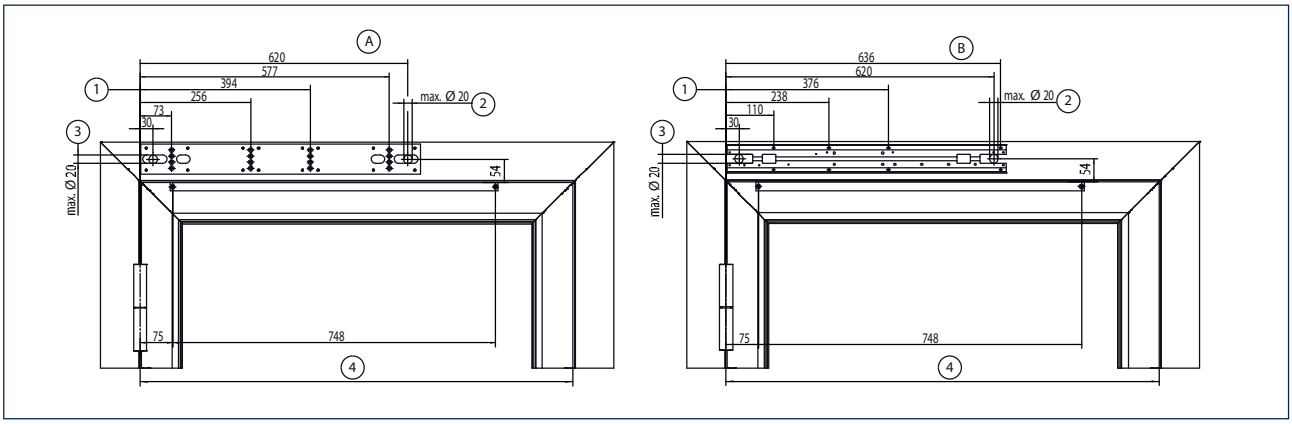
Note: Diagram shows left-hand (ISO 6), right-hand (ISO 5) is reversed (mirror-image).

Transom installation with guide rail on the hinge side, single-leaf
Drawing no. 70106-ep01



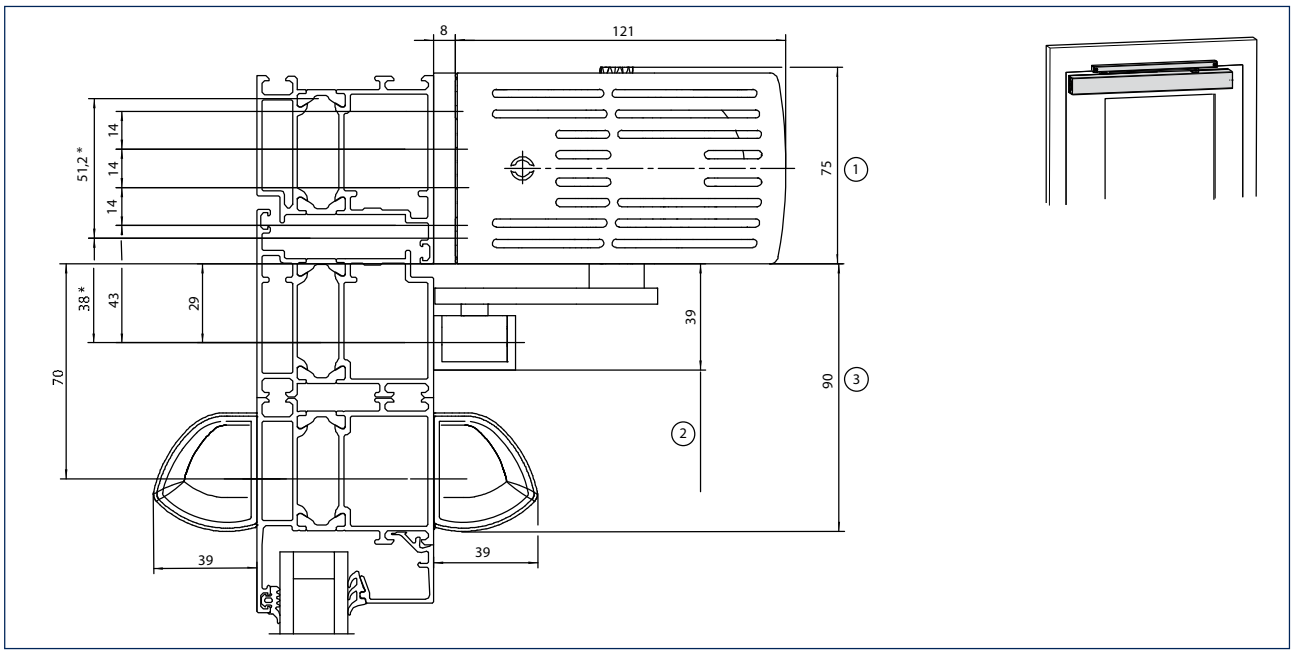
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Transom installation with guide rail on the opposite hinge side, single-leaf
Drawing no. 70106-ep02



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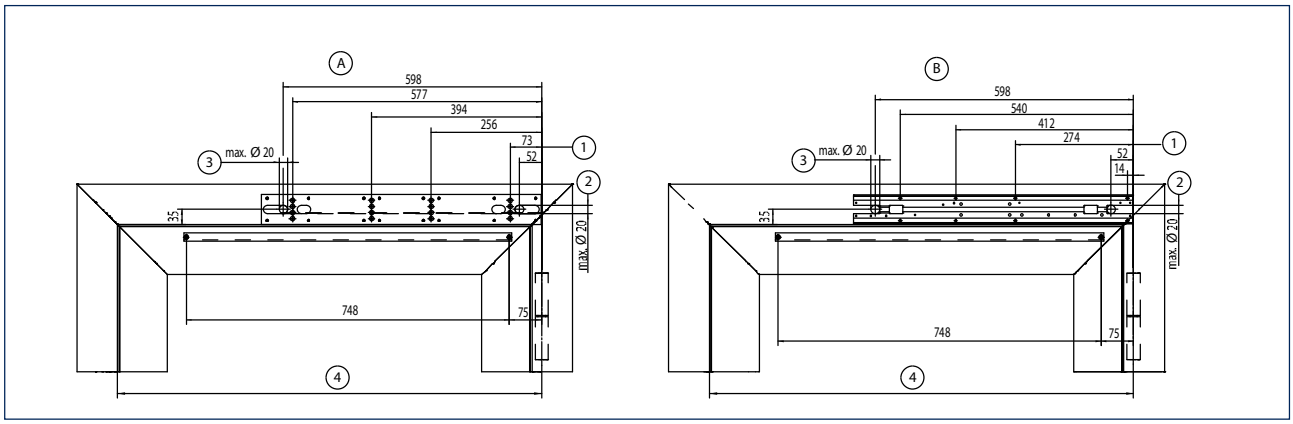
Installation with mounting plate (A) and direct installation (B)



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B = Direct installation
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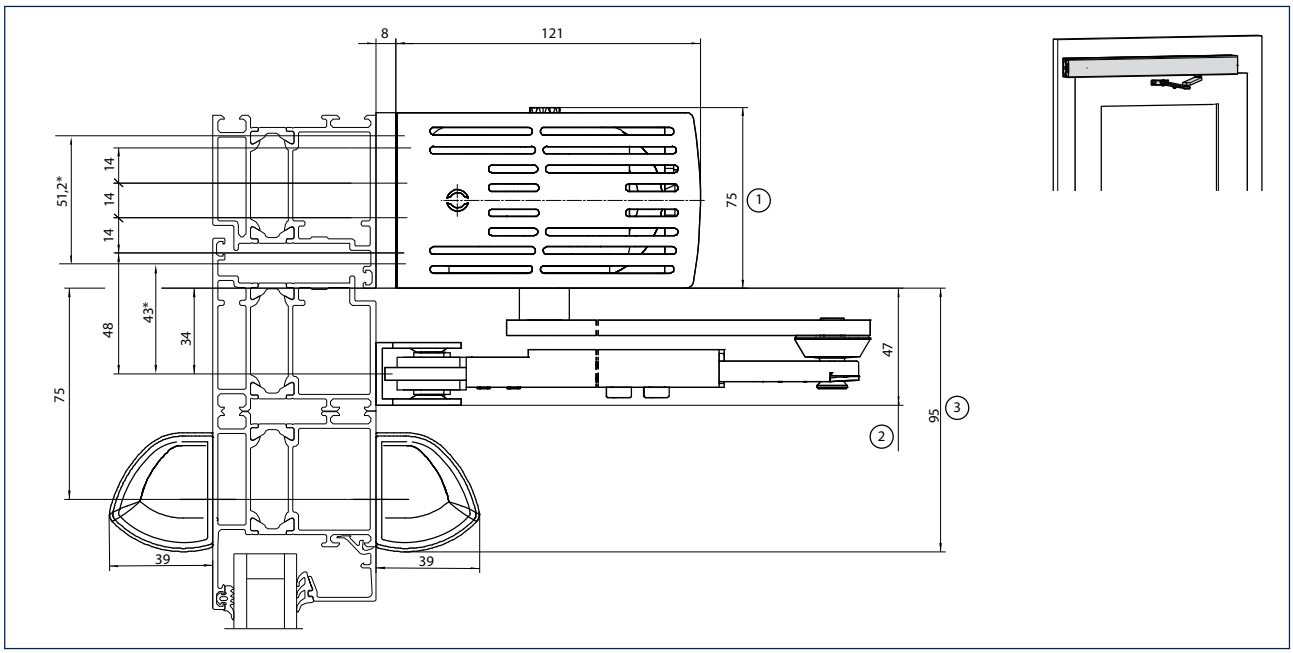
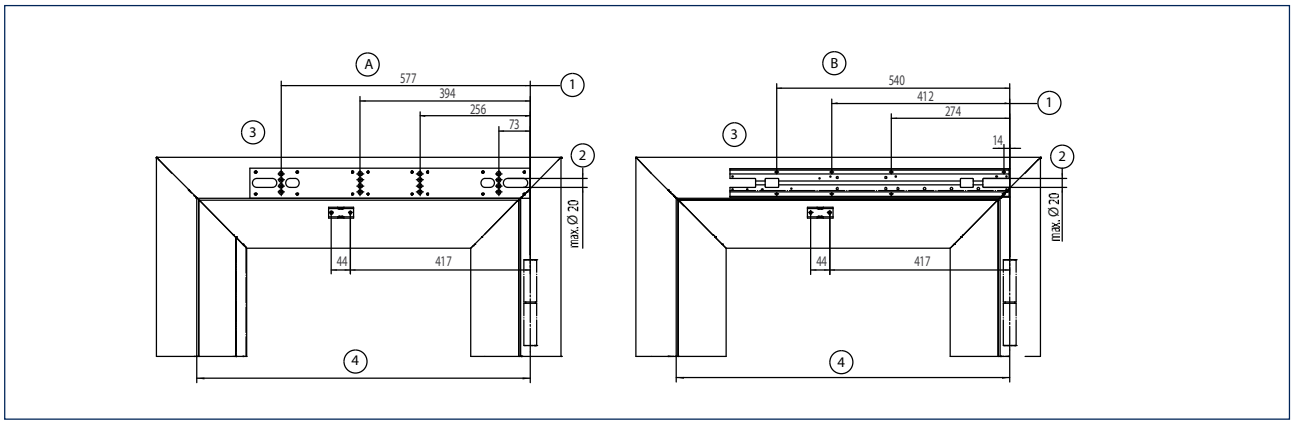
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Transom installation with link arm on the opposite hinge side, single-leaf
Drawing no. 70106-ep03



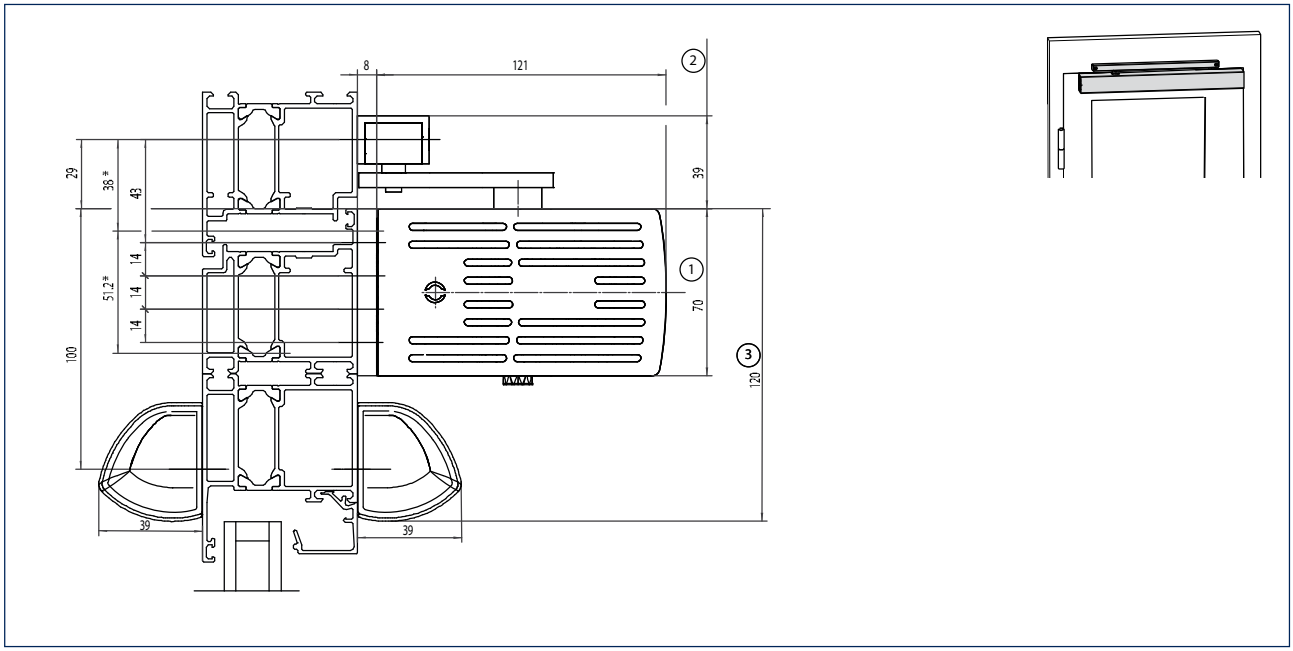
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Link arm space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



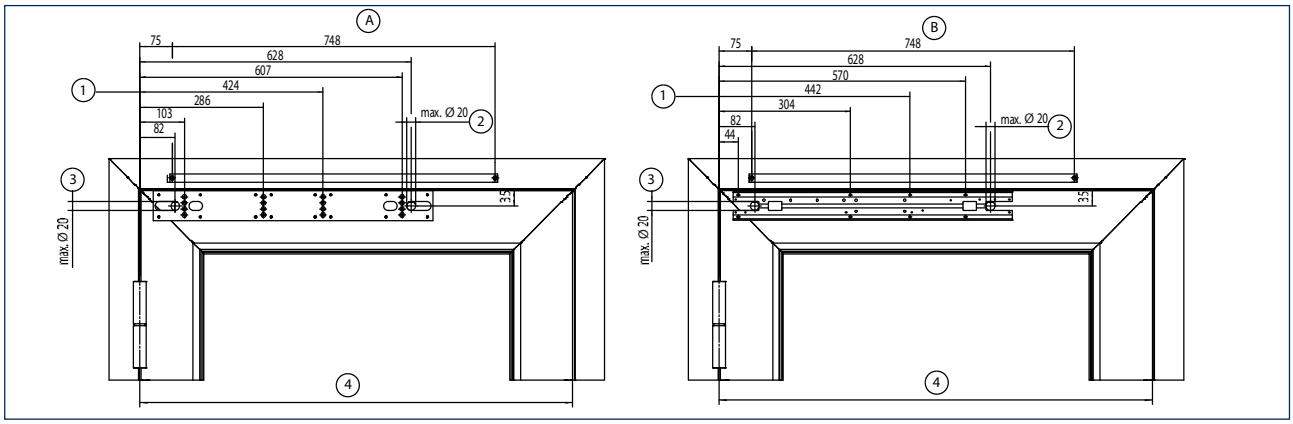
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Door leaf installation with guide rail on the hinge side, single-leaf
Drawing no. 70106-ep04



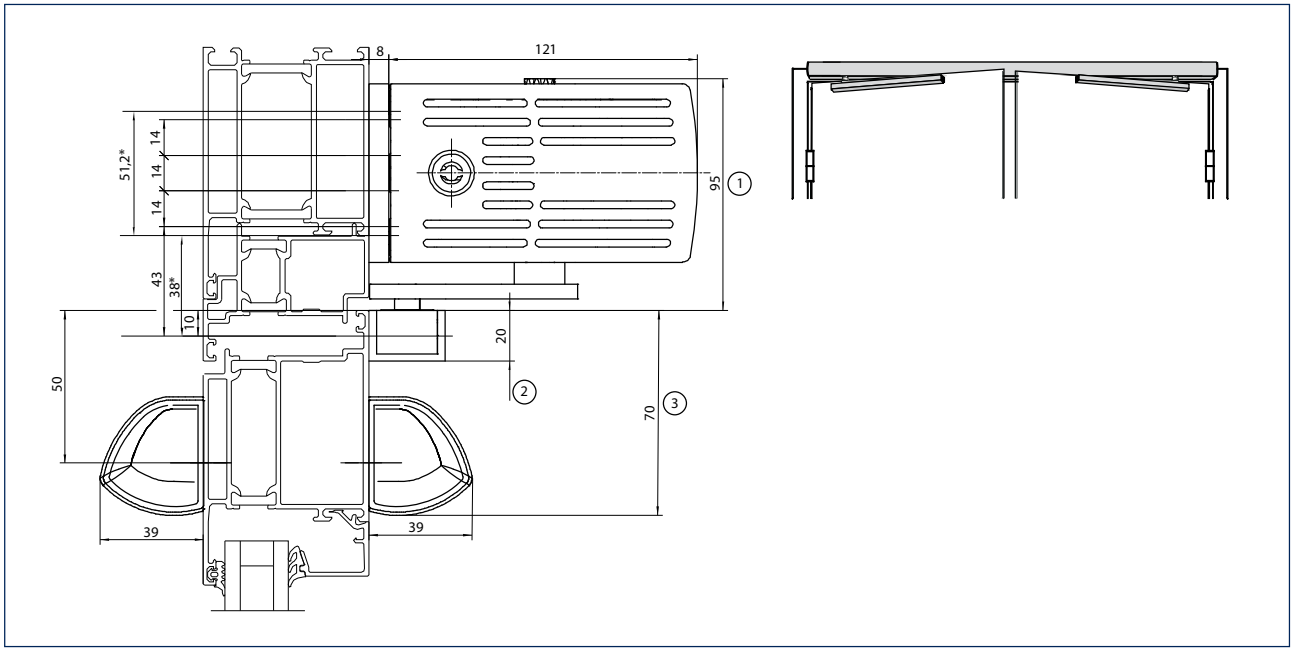
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



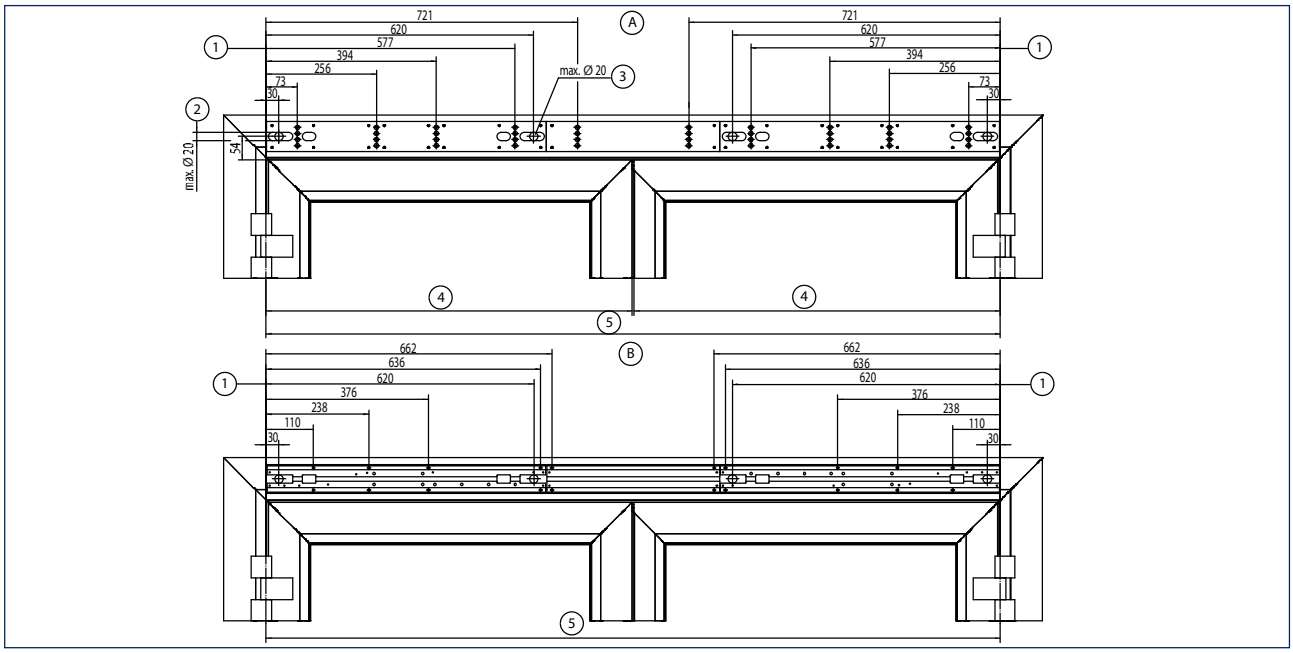
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width

Transom installation with guide rail on the hinge side, double-leaf
Drawing no. 70106-ep21



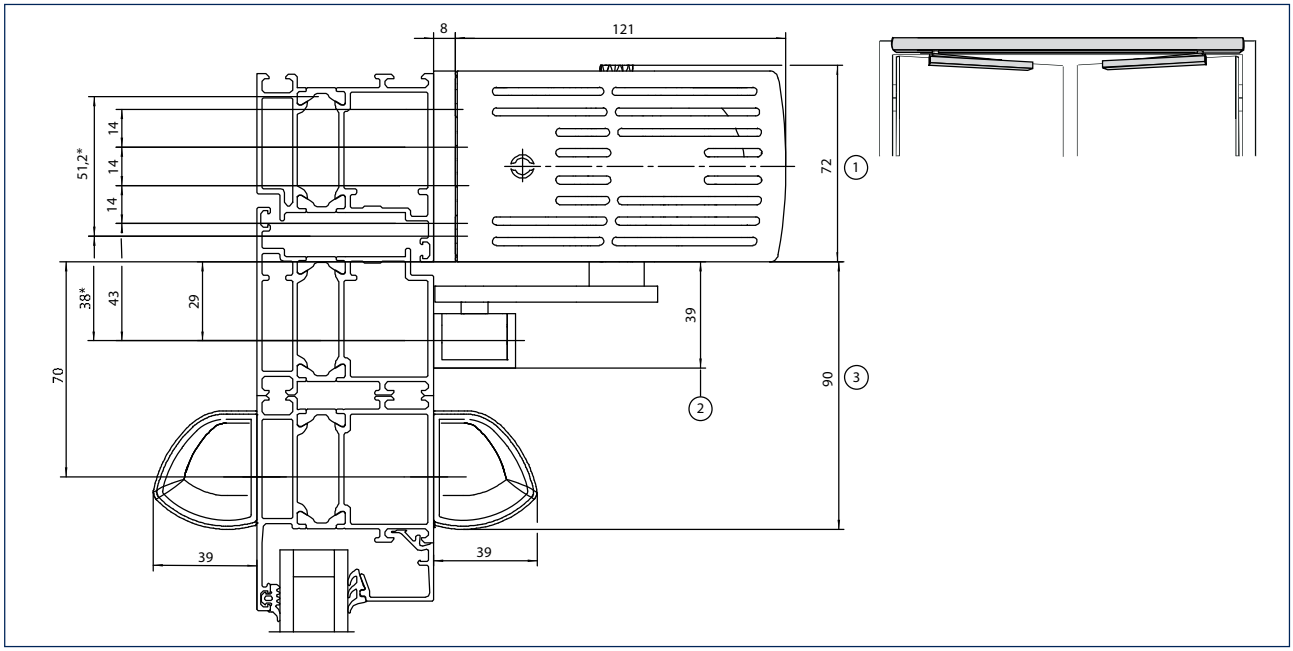
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



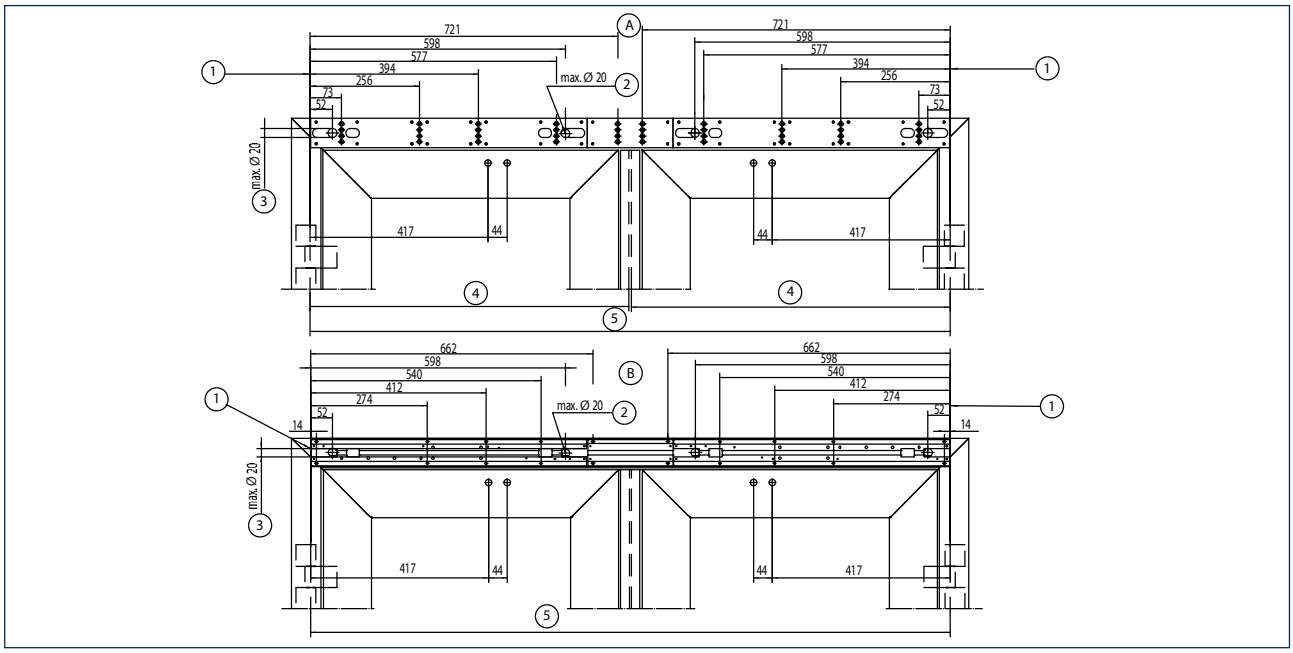
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

Transom installation with guide rail on the opposite hinge side, double-leaf
Drawing no. 70106-ep22



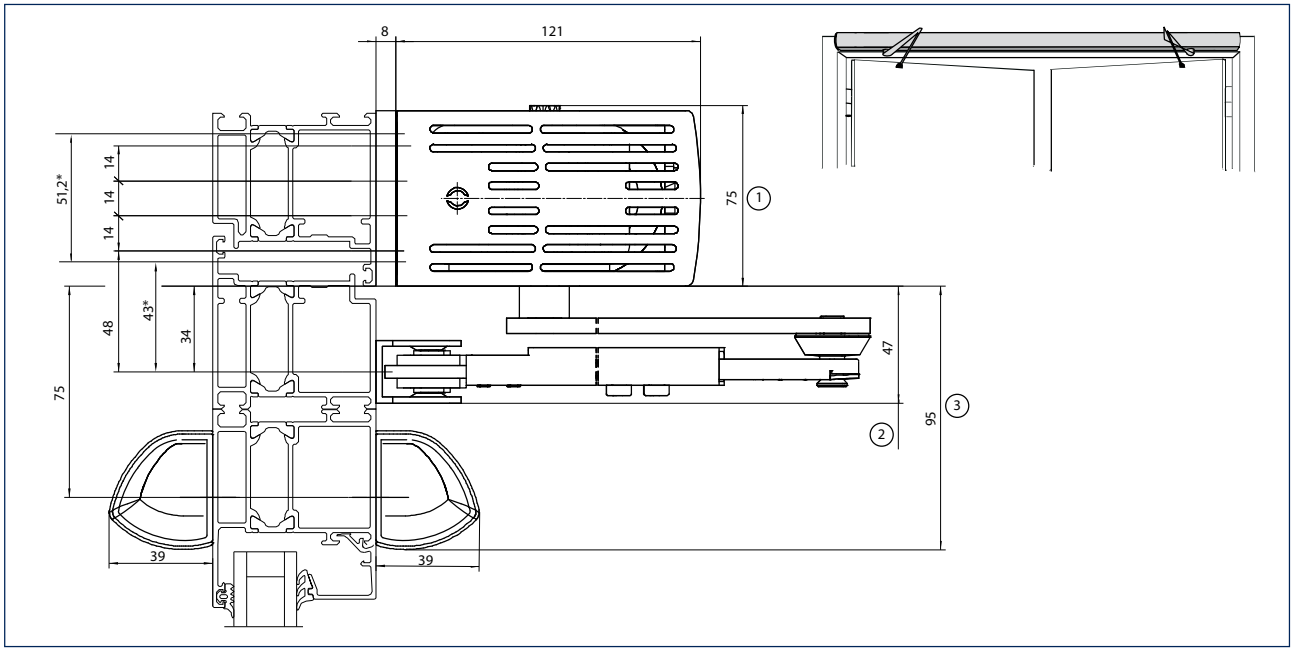
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



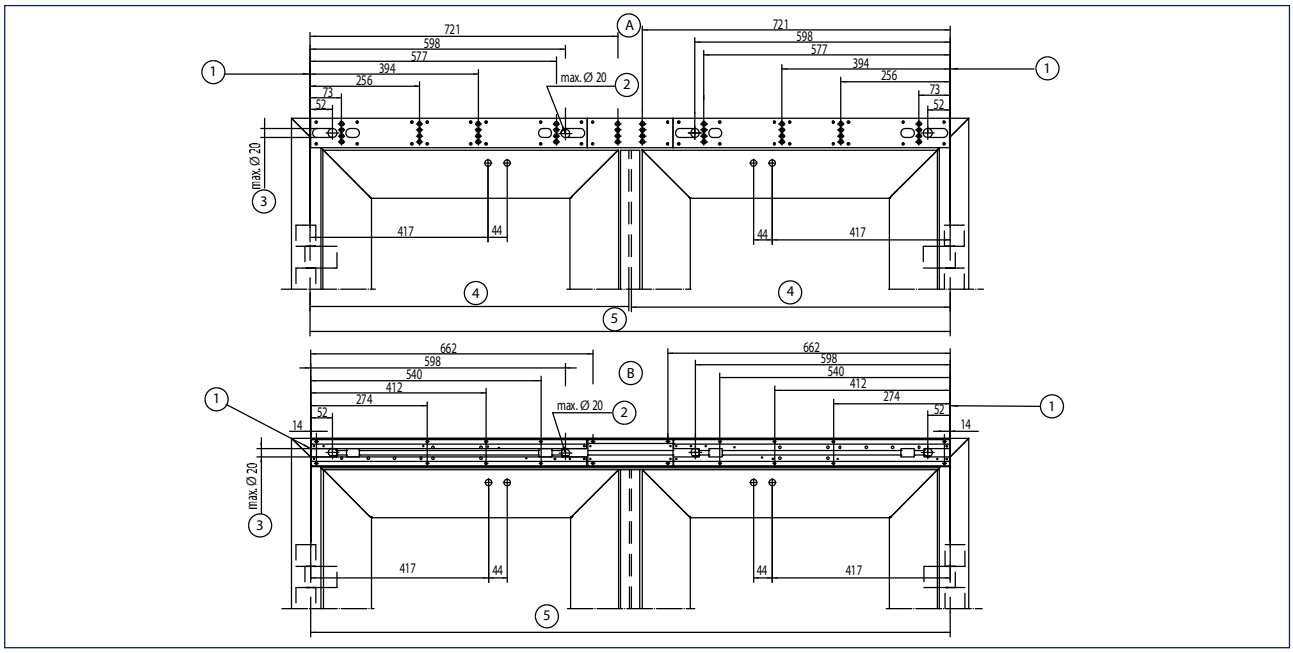
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

Transom installation with link arm on the opposite hinge side, double-leaf
Drawing no. 70106-ep23



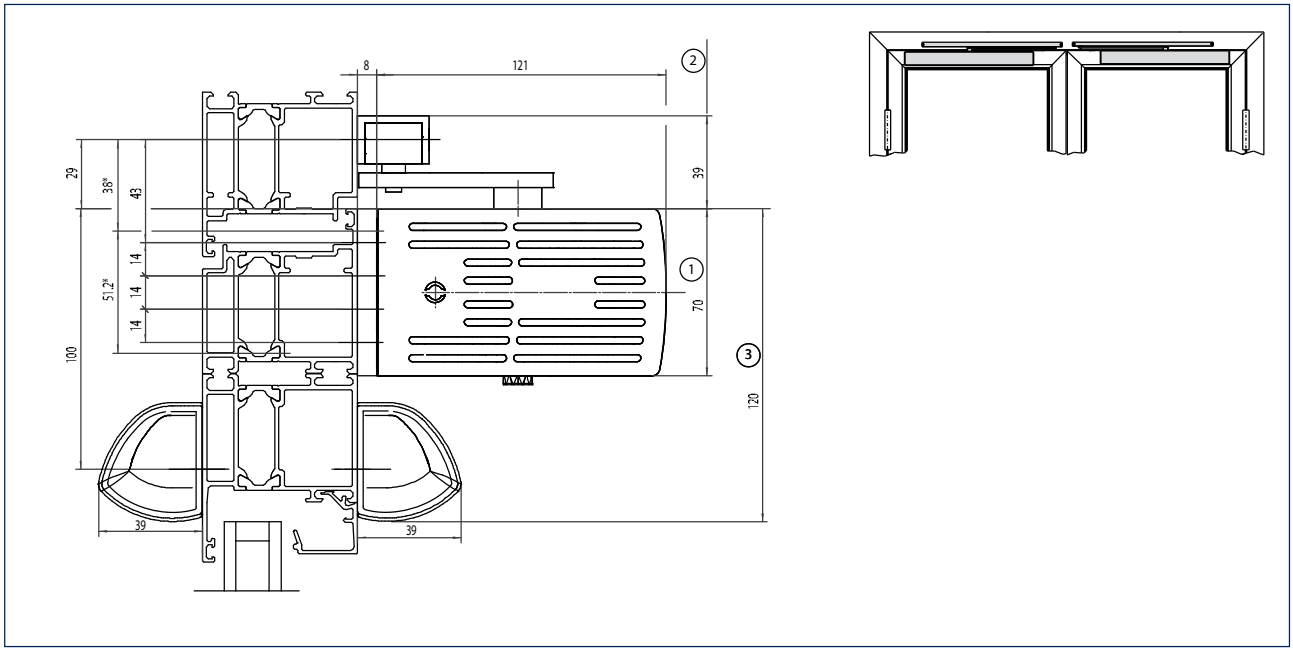
* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Link arm space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



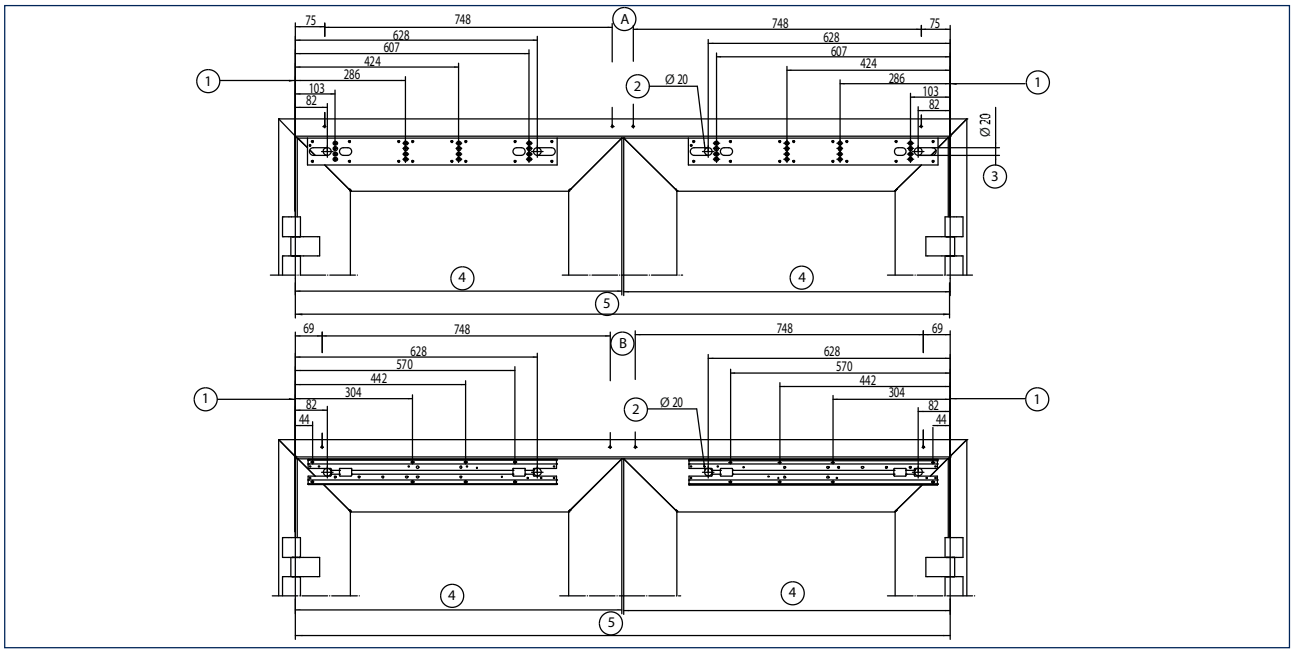
A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance

Door leaf installation with guide rail on the hinge side, double-leaf
Drawing no. 70106-ep24



* = Direct installation
1 = EMD-F/EMD Invers space requirement
2 = Guide rail space requirement
3 = GC 338 space requirement

Installation with mounting plate (A) and direct installation (B)



A = Installation with mounting plate
B = Direct installation
1 = Dimensional reference is middle of hinge
2 = Concealed line-feed for sensors, door openers, programme switches and lock switch contact
3 = Concealed cable line-feed 230 V / 50 Hz
4 = Door leaf width
5 = Hinge clearance