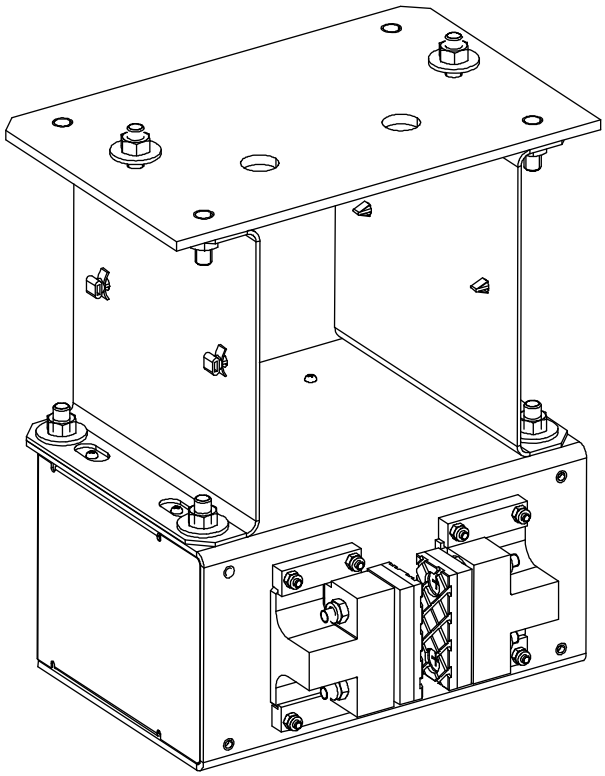
Technical Information and Configuration



[42871; 15.08.2012]

Summary

This manual provides the back-office personnel with the technical information needed to order and configure solutions with **MM CDD 100**.

Modification	00	01	02	03	04	05			Prepared	10.04.2014	luneo
KA No.	592213	592284	592346	592434	592613	592688			Reviewed	02.05.2014	bianstev
KA Date	01.05.12	01.09.12	21.12.12	01.09.13	20.12.13	07.06.14			Norms Chkd	02.05.2014	helfensy
MM CDD 100 Rel.1									Released	07.06.2014	maojuey
Technical Information and Configuration											Format **A4**
INVENTIO AG CH-6052 Hergiswil					**Classification 11540**		**Lead Office AP1**		**EJ 45322699**		EN

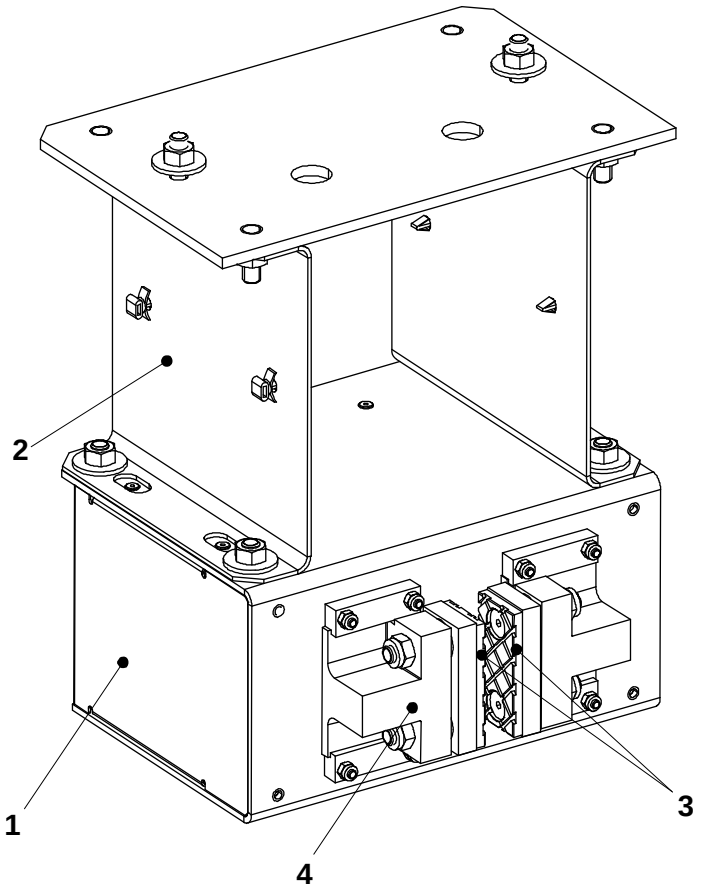
Table of Contents

1 Product Overview

Product Name

Designation	Description
MM	**M**echanical **M**aterial
CDD	**C**ar **D**amping **D**evice
100	Number
-AP	**A**sia **P**acific
-ZLA	**Z**entral **L**atin **A**merica

Overview



MM CDD 100-AP [42879; 11.04.2012]

1 CDD housing
2 Fastening bracket
3 Brake pad
4 Eccentric support

Physical Location The MM CDD 100 is installed below the car.

2 Scope of Application

Range of Application

Characteristic	Symbol	Unit	Description
Width of Guide Rail Head	BFK	mm	9, 10, 16
Travel Height	HQ	m	> 60
Rated Speed of Car	VKN	m/s	max. 2.5
Guide Rail Type	-	-	T70, T75, T82, T89
Car Weight	GQ	kg	630 ... 1150
Damping Force	-	N	105 ... 450 (oiled)
Average Operating Hours per Year	-	h/y	1200
Average Trips per Year	-	No. / y	150’000
Life time CDD	-	cycles	1x10^6

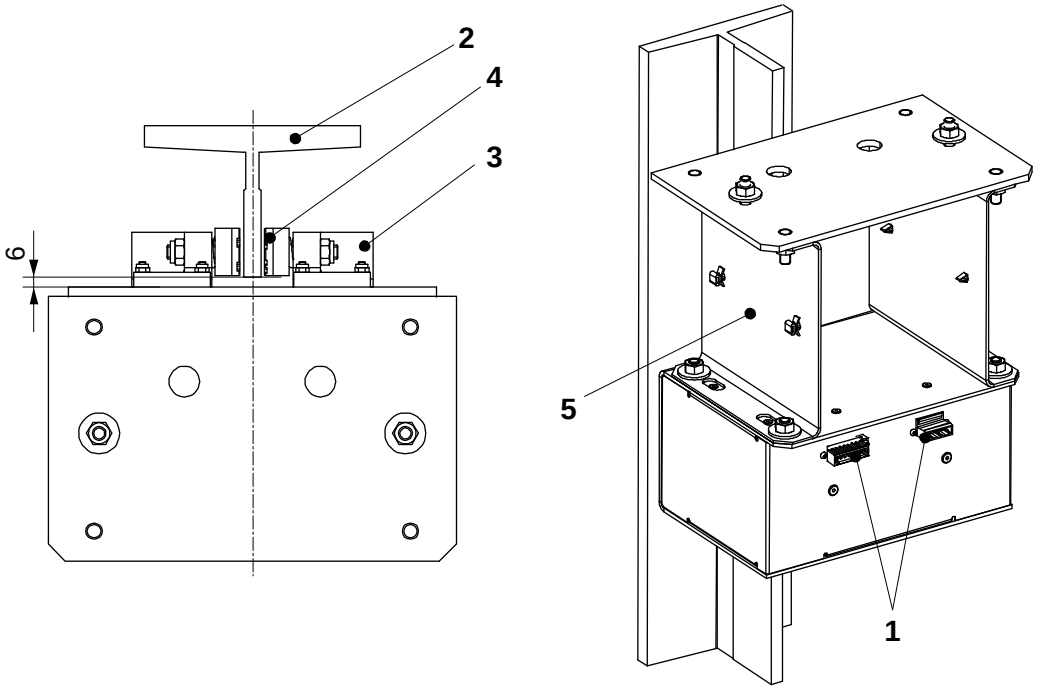
Standards and Regulations

Number	Title	Authority
EN 81-1:1998 + A3:2009	Safety Rules for the Construction and Installation of Lifts - Part 1: Electric Lifts	CEN

CEN European Committee for Standardization

3 Functional Description

Schematic Overview



Functional Description [42880; 12.04.2012]

1 Electrical interface
2 Car guide rail
3 Eccentric support
4 Brake pad
5 Fastening bracket

Description

When the elevator stands still, the car damping device (CDD) stabilizes the car by pressing two brake pads against the car guide rail. This stabilization impedes vertical oscillatory motion of the car induced by load variation when, for example, people get it in or out of the car. The brake pad support is electrically driven by the electric DC motor.

- The CDD is not meant to support the payload of the car. Load changes which exceed a given holding force cause the car to slide smoothly in the respective direction. For example:
  - When a heavy person enters the car, the car slowly slides downward a small distance.
  - When a heavy person exits the car, the car slowly slides upward a small distance.
- The need for a damping mechanism depends on the elasticity and length of the suspension and traction media.
- The CDD is activated by energizing the electric DC motor.
- Two micro switches signal the position (engaged, not engaged) of the CDD with a normally open contact. For details, see chapter "Peripherals and Interfaces".

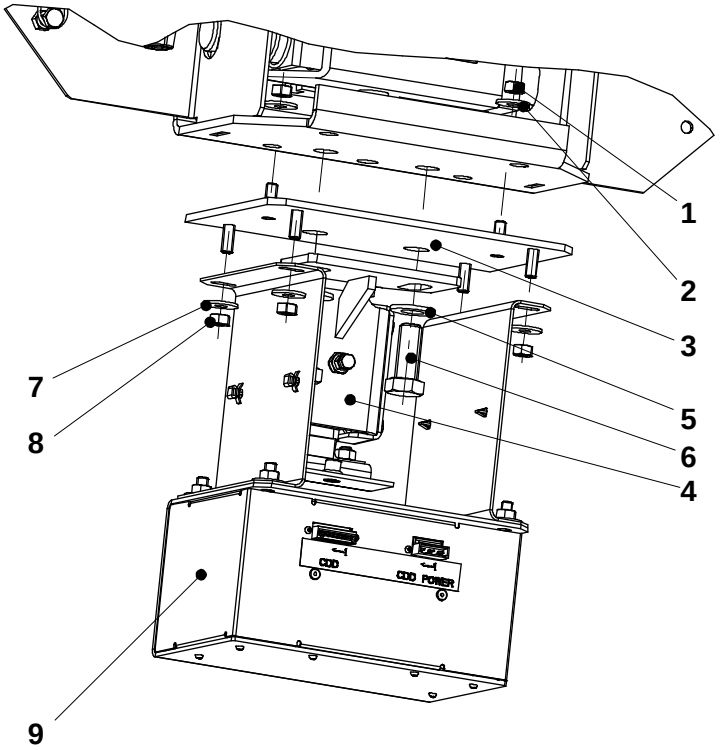
4 * Peripherals and Interfaces

Installation

The car damping device is designed for Schindler 3300, Schindler 3600 and Schindler 5300 ZLA car and controller.

Installation steps:

1) Install the base plate onto the lower yoke.
2) Install the guide shoe onto the base plate.
3) Install the car damping device (CDD) onto the base plate.
   – Adjust 6 mm between the CDD and the head of guide rail.
   – Keep the CDD centerline aligned with the guide rail centerline (the gap between the brake pads and the guide rail must be equal on both sides).
4) Connect the power cable and the signal cable and test the function.



Peripherals and Interfaces [42882; 15.08.2012]

1 M8 nut (2 pcs)
2 washer (2 pcs)
3 base plate
4 Guide shoe
5 washer (2 pcs)
6 M16x40 bolt (2 pcs)
7 washer (4 pcs)
8 M8 nut (4 pcs)
9 Car damping device

Control

The car damping device uses a free contact of KET-S as input.

The car damping device can therefore be combined with any control.

Power Supply

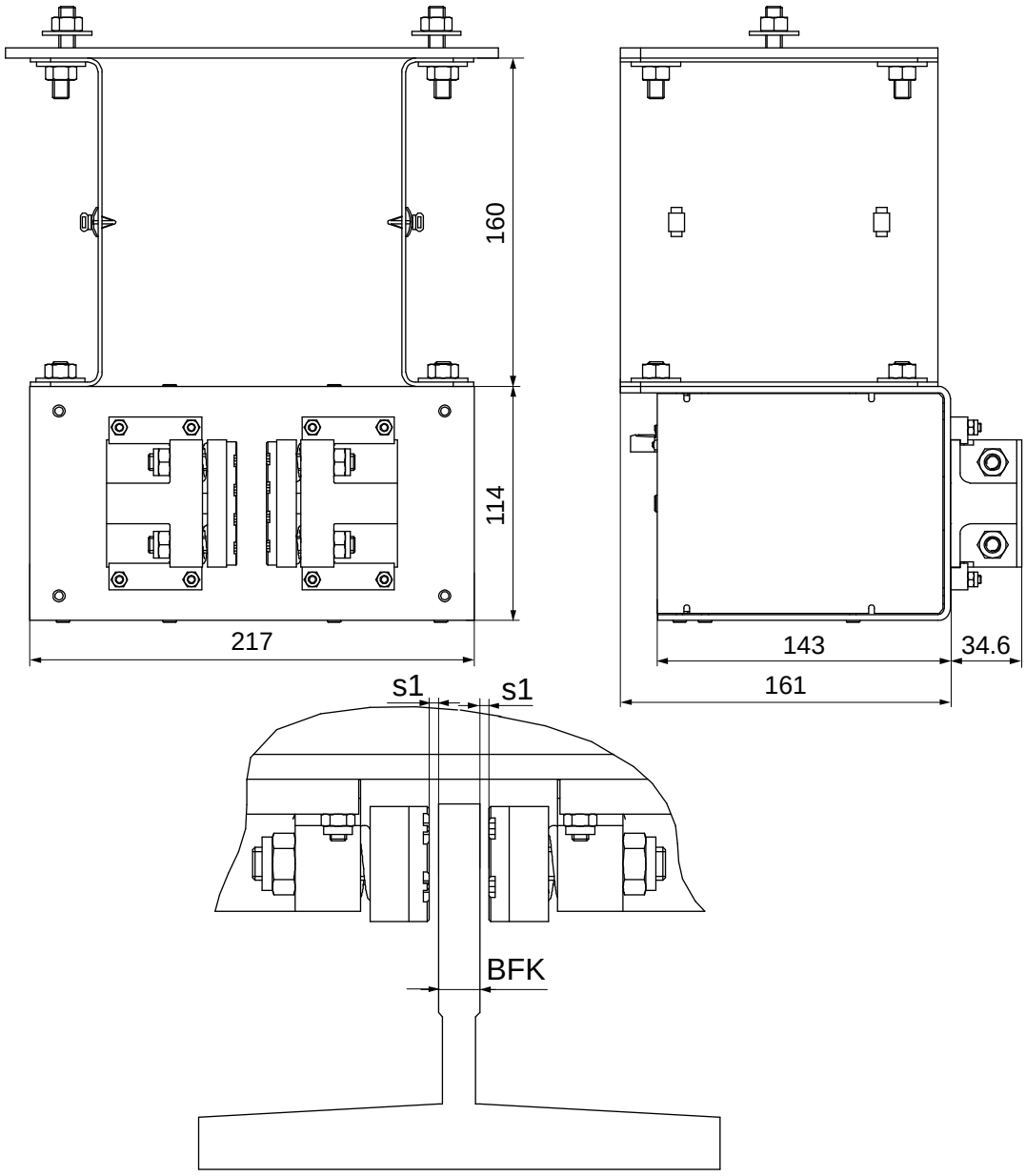
230 VAC / 1A on car roof.

Interface

- Car;
- Controller.

5 * Dispo Information

Dimensions

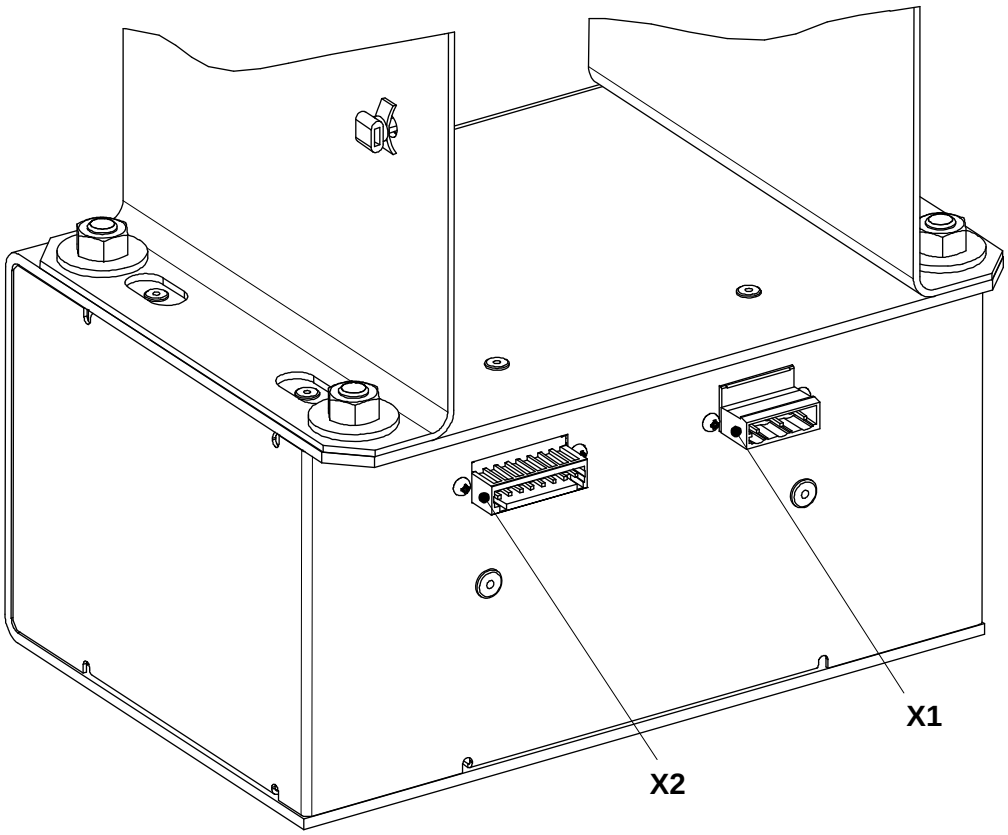


CDD Dimensions [42886; 12.04.2012]

Ordering Information

ID	Product Line	Release Scope	Description	Car Assembly Kit	NI / EI
57628829	E1	-	CDD E1 BFK = 16 mm	Without	NI and EI
57612684	E1	-	CDD E1 BFK = 10 mm	Without	NI and EI
57608670	E1	-	CDD E1 BFK = 9 mm	Without	NI and EI

Electrical Connections



View of Electrical Connections [42887; 18.04.2012]

X1 230 VAC (supply voltage)
X2 24 V (controller and signals)

Connector X1

Connector Type: WAGO 731-603/019-000 (male RM7.5 3P)

PIN	Function	Wire color
1	Line 230 VAC (supply current 1 A constant, 1.5 A peak)	Red
2	Protective earth	Green / yellow
3	Neutral	Blue

Connector X2

Connector Type: WAGO 734-308/019-000 (male RM3.5 8P)

PIN	Function	Wire color
1	DC +	n/a
2	DC -	Dark blue
3	Contact CDD Opened (Contact open when CDD Opened)	Black
4	Contact CDD Opened (Contact open when CDD Opened)	Grey
5	Contact Closed (Contact open when CDD Closed)	Black
6	Contact Closed (Contact open when CDD Closed)	Grey
7	Command Open CDD (DC+ = CDD shall open)	Orange
8	Command Close CDD (DC+ = CDD shall closed)	Orange

A1 * Technical Data

Mechanical Data

Characteristic	Description
Dimension [HxWxD]	275 x 216.5 x 195.6 mm
Weight	7 kg
Material / Finishing	Zinc coated steel
CDD Open	• T70 / T82: 12.5 ... 14.3 mm (nominal 13.4 mm) • T75: 13.5 ... 15.3 mm (nominal 14.4 mm) • T89: 19.5 ... 21.3 mm (nominal 20.4 mm)
CDD Close	• T70 / T82: 5.8 ... 6.6 mm (nominal 6.2 mm) • T75: 6.8 ... 7.6 mm (nominal 7.2 mm) • T89: 12.8 ... 13.6 mm (nominal 13.2 mm)

Electrical Data

Characteristic	Description
Supply Voltage X1	230 VAC
Supply Current X1	1 A permanent consumption
Peak Current X1	1.5 A
Supply Voltage X2	24 VDC
Supply Current X2	210 mA

Environmental Data

Characteristic		Description
Temperature	Storage and transport	-25 ... 70 °C
	Operation	5 ... 40 °C
Humidity	Storage and transport	95 %
	Operation	95 % (non-condensing and non-icing)
Vibration	Storage and transport	-
	Operation	-
Shock and Bump	Storage and transport	-
	Operation	-
Altitude	Storage and transport	≤ 3000 m ASL
	Operation	≤ 2000 m ASL
Protection Rating	-	IP 21

A2 Related Documents

Technical Documentation

Number	Description
K 600400	Symbols used in Formulas for Elevators
EJ 45322698	Maintenance MM CDD 100
EJ 45322697	MM CDD 100-AP Installation AP Embedded