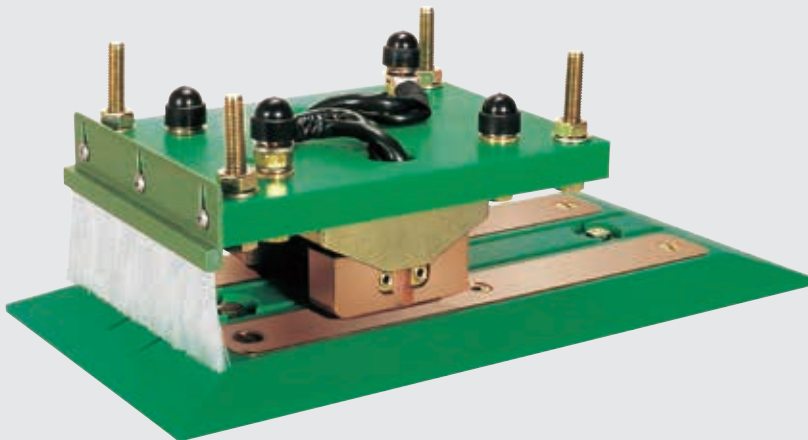




CHARGING CONTACTS
BLS/BLK



CHARGING CONTACTS - BLS/BLK

INTRODUCTION

VAHLE is proud to offer a complete range of charging contacts to meet any battery charging or electrification need. VAHLE charging contacts consist of the vehicle mounted “collector” and the stationary mounted “base plate.” The collectors have 1 or more spring mounted brushes which engage the base plate as they are moved into position. A large variety of power requirements, shapes and sizes are available for your application. The following pages include examples of our most commonly used models. Additional types are available on request along with fully customizable options. Custom shapes and sizes can be created to fit special applications along with multiple color choices. For additional models and custom options, please contact VAHLE directly.

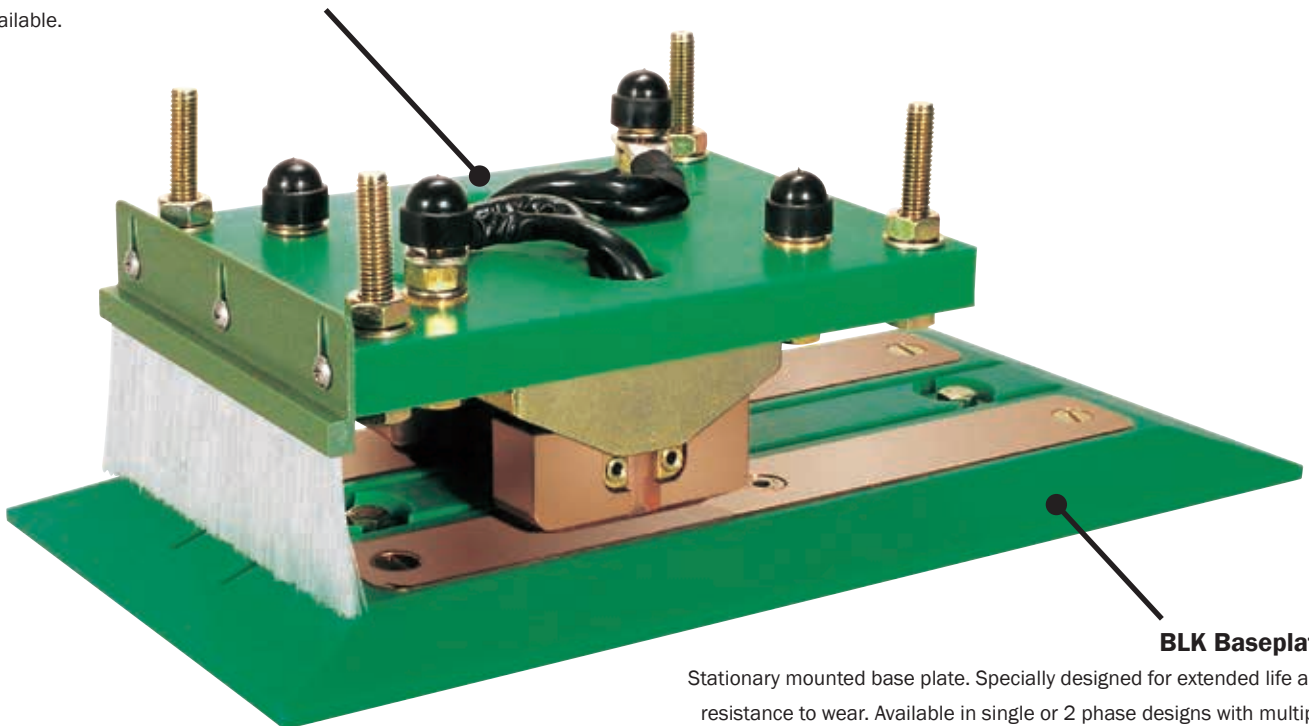
TABLE OF CONTENTS

Models - 200 A	4 - 6	Spare Parts	9
Models - 20 A & 25 A	7	General Installation Instructions	10
Models — 400 A & 600 A	8	Technical Questionnaire	11

OVERVIEW

BLS Collector

Vehicle mounted collector. Includes spring loaded brushes to ensure reliable performance and even contact. Available in single or 2 phase designs with multiple amperage ratings. Fully customizable options available.



BLK Baseplate

Stationary mounted base plate. Specially designed for extended life and resistance to wear. Available in single or 2 phase designs with multiple amperage ratings. Fully customizable options available.

COMMON APPLICATIONS

VAHLE charging contacts are ideal for multiple applications across any industry. The wide range of available sizes, shapes and amperages provide adaptability to meet your requirements.

COMMON APPLICATIONS INCLUDE:

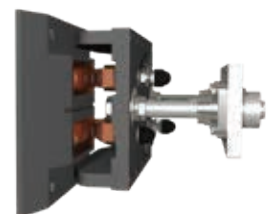
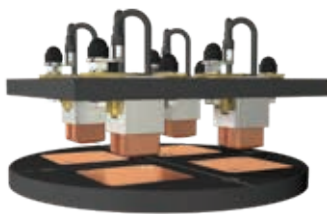
- AGVs
- Shuttle systems
- Amusement rides
- Electric vehicles
- Warehouse & distribution facilities
- Manufacturing plants



FEATURES & SPECIFICATIONS

Our industry leading contacts are developed to provide reliable and consistent performance in any application. Multiple amperages and standard shapes & sizes provide versatility to meet your requirements. The following pages include the most common models provided but a wide range of standard models are available. Contact VAHLE directly for additional information. For custom inquiries, refer to the technical questionnaire of page 11 to assist with design and requirements.

- Standard amperages up to 600 A
- Voltages up to 60 V DC and 25 V AC
- Wide variety of shapes & sizes available
- Multiple color options available
- Engineered custom solutions available



YOUR VISION. OUR SOLUTION.

MODELS – 200 A

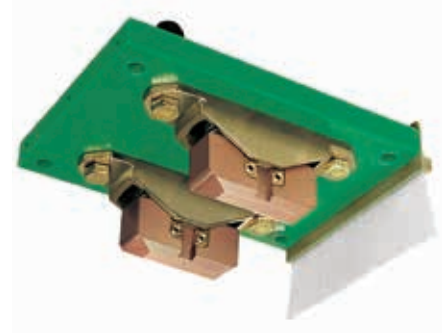
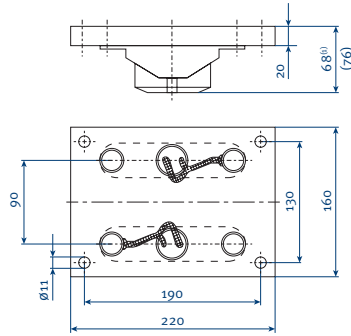
COLLECTORS & BASE PLATES

COLLECTOR

2-phase, 200 A

Insulated collector for vehicle installation, with two contact brushes and a bristle cleaning brush.

Type	Weight kg (lbs)	Cat.-No
BLS 200-2-01	2.600 (5.7)	590 000

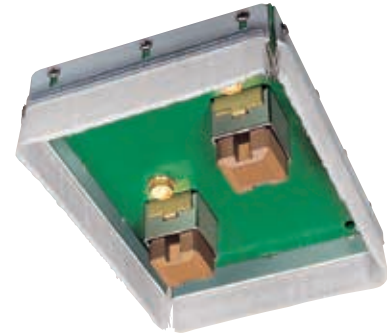
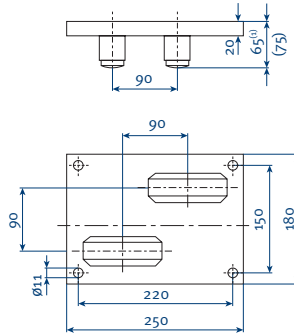


COLLECTOR

2-phase, 200A

Insulated collector for vehicle installation, with two contact brushes, surrounding bristle cleaning brushes and two-directional drive-on capability

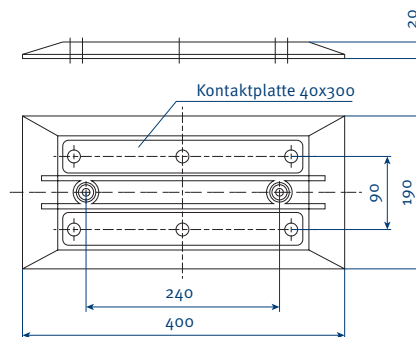
Type	Weight kg (lbs)	Cat.-No
BLS 200-2Q-01	3.500 (7.7)	590 013



BASE PLATE

2-phase, 200 A

Type	Weight kg (lbs)	Cat.-No
BLK 200-2-01	2.200 (4.9)	590 001



MODELS – 200 A

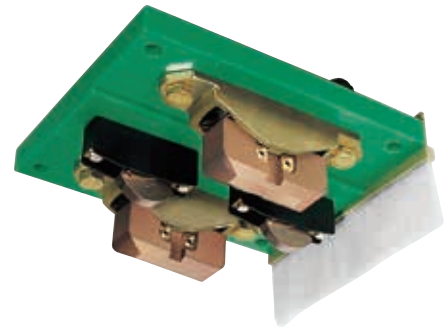
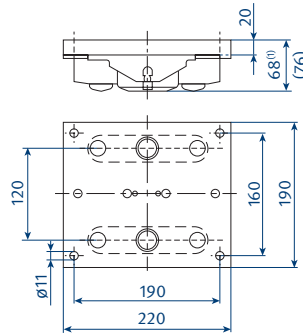
COLLECTORS & BASE PLATES

COLLECTOR

2-phase, 200 A

Insulated collector for vehicle installation, with two contact brushes each for charging, two pilot contacts and a bristle cleaning brush

Type	Weight kg (lbs)	Cat.-No
BLS 200-2/20-2-01	3.000 (6.6)	590 198

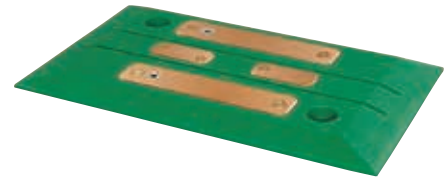
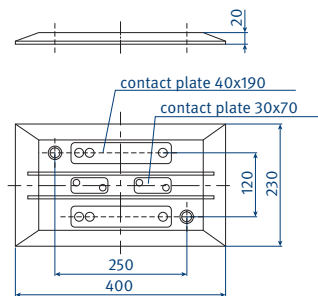


BASE PLATE

2-phase, 200 A

Insulated floor contact plate with two copper contact plates for charging and two pilot copper contact plates

Type	Weight kg (lbs)	Cat.-No
BLK 200-2/25-2-01	2.700 (6.0)	590 062

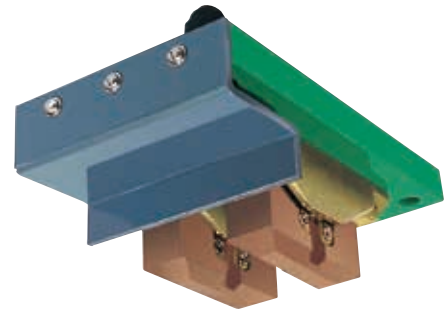
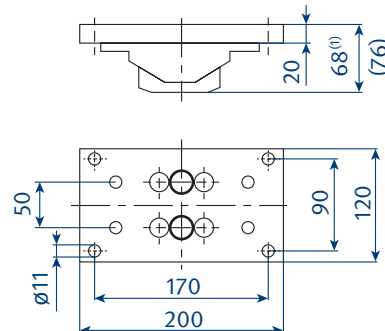


COLLECTOR

2-phase, 200 A

Insulated collector for vehicle installation, with two contact brushes and cover pusher

Type	Weight kg (lbs)	Cat.-No
BLS 200-2E-01	2.260 (5.0)	590 065

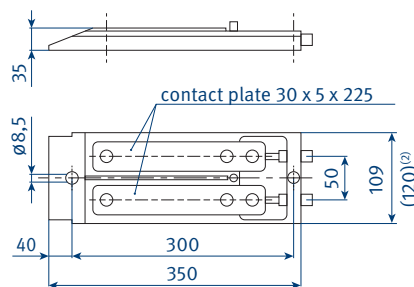


BASE PLATE

2-phase, 200 A

Insulated floor contact plate with two copper contacts, spring loaded cover and 2 x 2 m connecting cables

Type	Weight kg (lbs)	Cat.-No
BLK 200-2EA-01	3.926 (8.7)	590 064



(1) Height at contact position

MODELS – 200 A

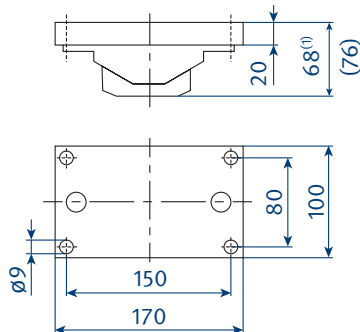
COLLECTORS & BASE PLATES

COLLECTOR

Single-phase, 200 A

Insulated collector for vehicle installation, with one contact brush and one bristle cleaning brush (to be used in pairs)

Type	Weight kg (lbs)	Cat.-No
BLS 200-1-04	1.362 (3.0)	590 035

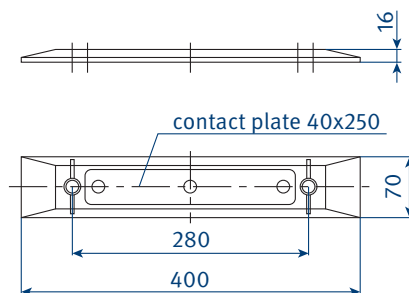


BASE PLATE

Single-phase, 200 A

Insulated floor contact plate, complete with single copper contact

Type	Weight kg (lbs)	Cat.-No
BLK 200-1-01 W	0.890 (2.0)	590 036

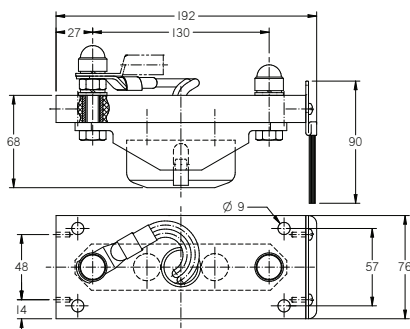


COLLECTOR

Single-phase, 200 A

Insulated collector for vehicle installation, reduced footprint model

Type	Weight kg (lbs)	Cat.-No
BLS 200-1-09	1.225 (2.7)	590 301



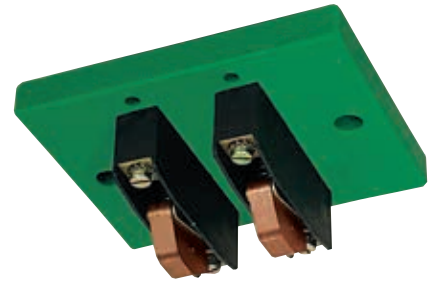
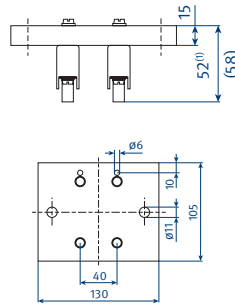
MODELS – 20 A & 25 A

COLLECTORS & BASE PLATES

COLLECTOR

2-phase, 20 A

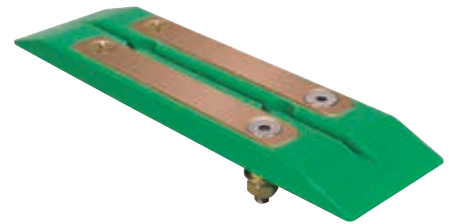
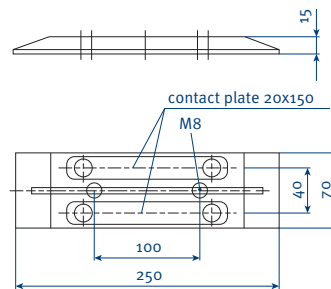
Type	Weight kg (lbs)	Cat.-No
BLS 20-20-01	0.310 (0.7)	590 207



BASE PLATE

2-phase, 25 A

Type	Weight kg (lbs)	Cat.-No
BLK 25-2-01	0.590 (1.3)	590 042

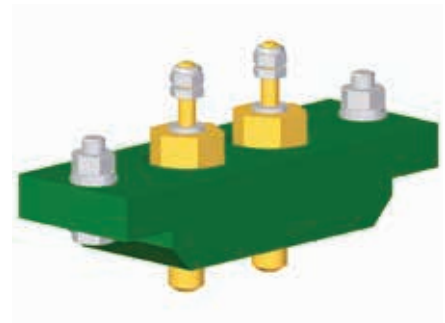
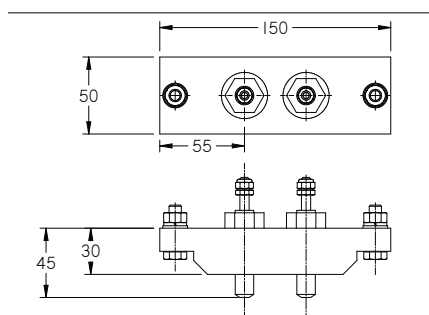


COLLECTOR

2-phase, 25 A

Insulated collector for vehicle installation, with two compression contact brushes

Type	Weight kg (lbs)	Cat.-No
BLS 25-2-01	0.454 (1.0)	590 041



(1) Height at contact position

(2) Dimensions incl. coverage

MODELS – 400 A & 600 A

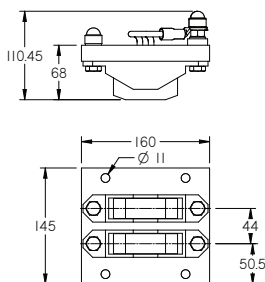
COLLECTORS & BASE PLATES

COLLECTOR

Single-phase, 400 A

Insulated collector for vehicle installation, with 2 contact brushes

Type	Weight kg (lbs)	Cat.-No
BLS 400-1-02	1.362 (3.0)	590 114

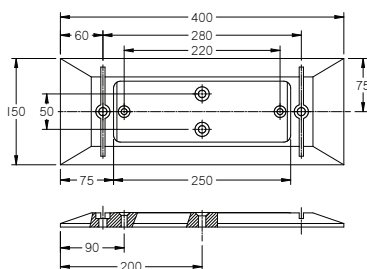


BASE PLATE

Single-phase, 400 A

Insulated floor contact plate with single copper contact

Type	Weight kg (lbs)	Cat.-No
BLK 400-1-02	1.950 (4.3)	590 115

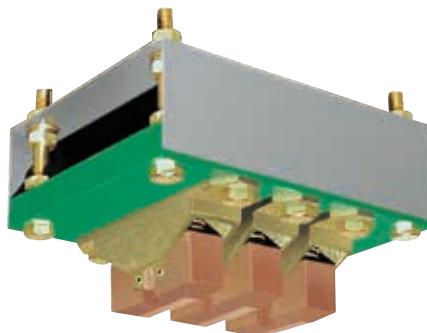
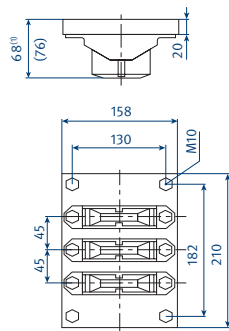


COLLECTOR

Single-phase, 600 A

Insulated collector for vehicle installation, with three contact brushes and one bristle cleaning brush (to be used in pairs)

Type	Weight kg (lbs)	Cat.-No
SA-BLS600-1A0-01	4.100 (9.0)	590 043

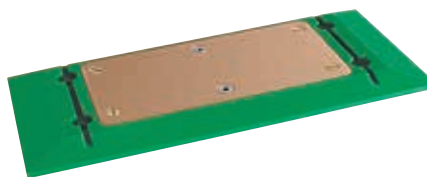
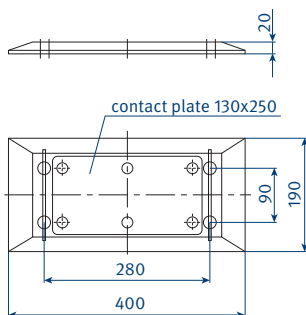


BASE PLATE

Single-phase, 600 A

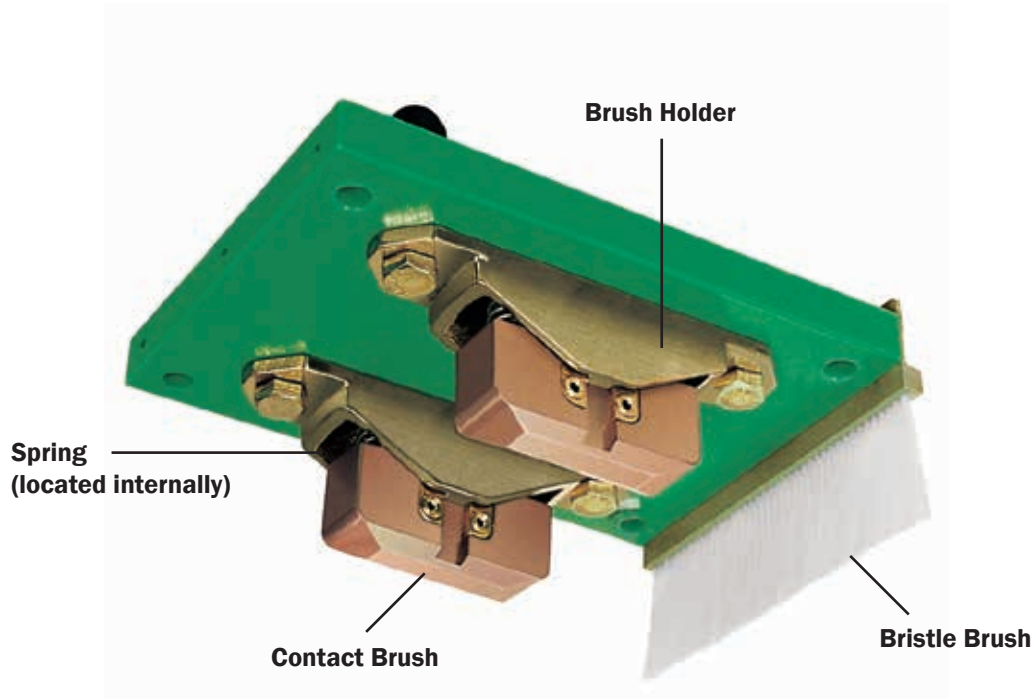
Insulated floor contact plate, complete with single copper contact

Type	Weight kg (lbs)	Cat.-No
BLK600-1-01	3.000 (6.6)	590 044



SPARE PARTS LIST

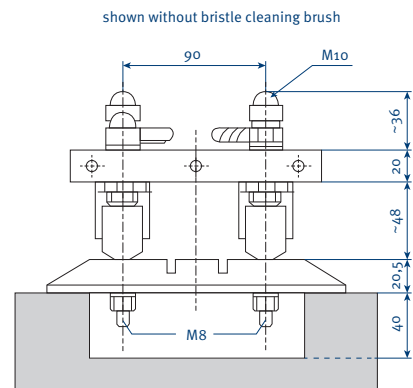
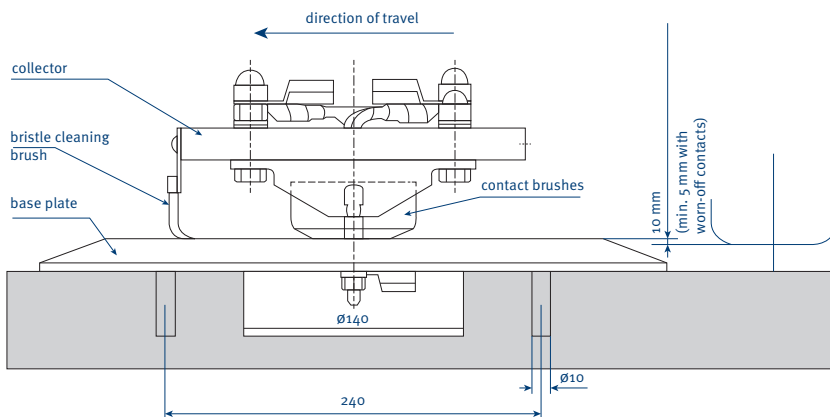
FOR STANDARD COLLECTORS AND BASE PLATES



Description	Part Number	For Cat.-No(s)
BLS 200A Brush	590 002	590000, 590198, 590035, 590043, 590065, 590114
Pressure Spring	590 003	590000, 590198, 590035, 590043, 590065, 590114
Brush Holder	590 004	590000, 590198, 590035, 590043, 590065, 590114
ONST Brush (includes brush, spring and holder)	166 614	590198
ONST Brush (includes brush, spring and holder)	166 546	590 001
BLS ST 200-Q (includes brush, spring and holder)	590 194	590 013
Bristle Brush	590 133	590 013
Bristle Brush	590 120	590 013
Bristle Brush	590 005	590 001
Bristle Brush	590 163	590 198
Bristle Brush	590 049	590 036
Compression Brush	590 077	590 041

GENERAL INSTALLATION INSTRUCTIONS

- Install AGV-collectors on vehicle with bristle cleaning brushes in direction of travel.
- Install AGV-Base Plate on top of the floor.
- The marked height⁽¹⁾ 68 (65, 45) of AGV-Collectors type BLS is the dimension at contact position.
Allowable tolerance: + 2 mm.
- In order to guarantee sufficient contact pressure, the max. wear reduction of the contact brushes is limited to 5 mm whereby the unevenness of the floor must be considered.
- Between base plate and cutout at concrete floor a dust- and waterproof sealing has to be installed.



(1) Height at contact position

(2) Dimensions incl. coverage

TECHNICAL QUESTIONS

BATTERY CHARGING SYSTEMS

Customer _____

Submission Date _____

End User _____

Project No. _____

Installation _____

Delivery Date _____

	Contact	Field Service
Name		
Tel./Fax		
Email Address		

1. Operating voltage/frequency

- Direct Current
 - Alternating Current
- ___ V ___ HZ

2. Number of contacts

_____ Charging-Operating Current
 _____ Control Current
 _____ Data/Pilot Contacts

3. Amperage

_____ Power in A
 _____ Duty Cycle in %
Attach charging curve if available

4. Type of contacting

- Entrance/Crossing in Y-direction
- Entrance/Crossing in X-direction
- Pressure contact (Z)



4a. Operating tolerance/ Positioning

precision

_____ In X
 _____ In Y
 _____ In Z

5. Max. Installation Space

_____ Width
 _____ Length
 _____ Depth



6. Ambient Conditions

- Indoor installation
- Outdoor installation

If outdoor installation:

- Open to elements
- Roofed

Special operating condition

- Humidity
- Dust
- Other: _____

Ambient temperature

_____ °C min.
 _____ °C max.

Entrance or exit speed

_____ in m/s

Number of crossings per year: _____

7. Type of application

- AGV-System
- Forklift charging
- Shuttle/Warehouse
- Travel operations
- Other: _____

8. Function

- Contacting/Positioning
- Current feed
- Charging/Energy storage

Type:

- Battery/Accumulator
- Ultracap
- Other: _____

9. Description of functional processes

10. Quantity

_____ Annual requirement
 _____ Individual order requirements

11. Other important information

12. Attach supporting drawings/ sketches as needed



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