# REMA BATTERY CONNECTOR DIN320

## Productfeatures and advantages

- Specifically designed for the quick and opportunity charging of large battery capacities
- Suitable for lead gel accumulators and lithium-ion batteries
- Corresponds to the DIN VDE 0632-589 and DIN EN 1175
- Spring supported contact system for
  - optimal contact pressure
  - high electrical conductivity
- High-grade contacts made out of pure high conductive Cu-ETP copper with silver plated surface and an anti-friction and tarnish coating ensure
  - power transition with minimal losses
  - long life
- Durable because of acid resistant design
- Suitable for cable sizes from 50 $mm^2$ to 95 $mm^2$
- Direct crimping without reducing bushing for all cable size
- Wide range of accessories
  - different handle shapes
  - 1 pair of additional auxiliary and 1 pair of pilot contacts
  - cooling system with air supply through
- Typical applications
  - forklift trucks
  - battery charging systems
  - sweeper and RCC devices


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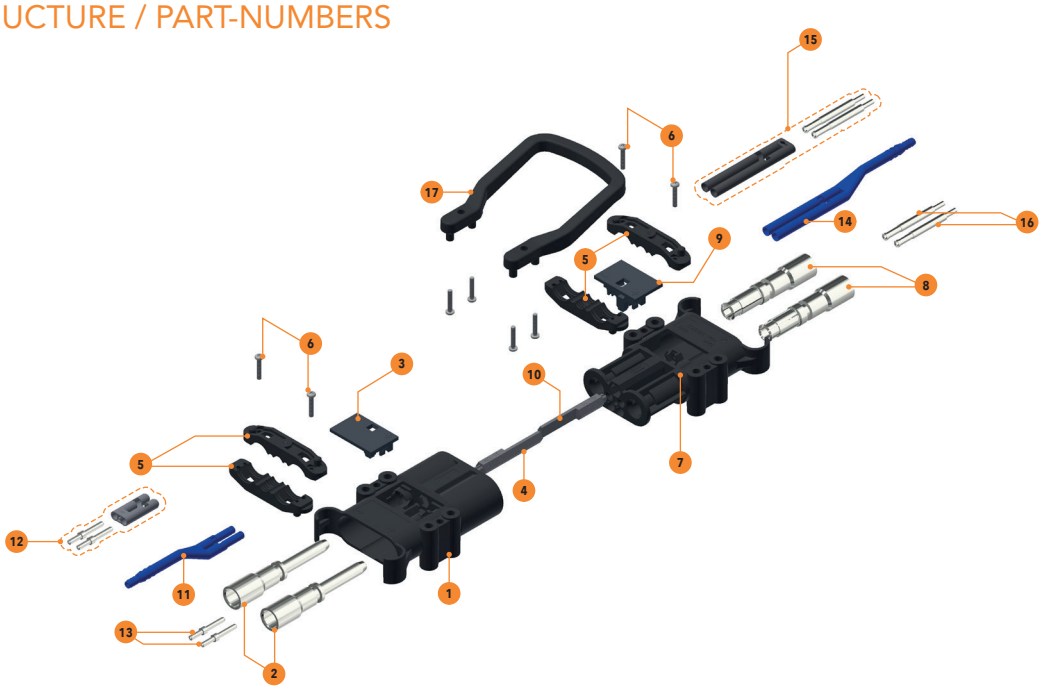
## 1. STRUCTURE / PART-NUMBERS




## PLUG AND SOCKET SETS DIN320

| DESCRIPTION | SET PARTS | CROSS SECTION: | 50mm² | 70mm² | 95mm² |
|---|---|---|---|---|---|
| DIN320 plug; grey coding; acid resistant | 1/2/3/4/(5(2x)/6 | PART-NO. | 108952 | 108957 | 108960 |
| DIN320 socket; grey coding; acid resistant | 5(2x)/6/7/8/9/10 | PART-NO. | 108972 | 108975 | 108979 |

## ADDITION PARTS DIN320

| DESCRIPTION | POSITION | PART-NO. |
|---|---|---|
| DIN320 air adapter plug (6 / 8 mm connection) | 11 | 100467 |
| DIN320 pilot contact set plug | 12 | 108751 |
| DIN320 aux contact for plug | 13 | 102691 |
| DIN320 air adapter socket (6 / 8 mm connection) | 14 | 100466 |
| DIN320 pilot contact set socket | 15 | 108749 |
| DIN320 aux contact for socket | 16 | 108747 |
| DIN320 coding pin grey (wet) | 4, 10 | 100015 |
| DIN320 coding pin yellow (wet + dry) | 4 | 100048 |
| DIN320 coding pin plug blue (Li-Ion) | 4 | 100020 |
| DIN320 coding pin green (dry) | 4, 10 | 100049 |
| DIN320 coding pin socket blue (Li-Ion) | 10 | 100021 |
| DIN320 handle bended incl. 4 Screws | 17 | 108880 |
| DIN320 handle bended incl. 8 Screws | 17 | 108881 |
| DIN320 handle flat incl. 2 Screws M6x50 | 17 | 108908 |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## 2. TECHNICAL SPECIFICATIONS

### GENERAL

| | |
|---|---|
| **Nominal voltage $U_N$** | 150 V DC |
| **Current rating $I_N$ (1)** | 320 A acc. DIN VDE 0623-589 |
| **Test voltage** | 2 kV AC acc. DIN EN 1175 |
| **Temperature range (incl. self-heating)** | -20 °C … +105 °C<br>-4 °F … +221 °F |
| **Whole plugging line** | app. 46 mm |
| **Plugging line main contact** | app. 20 mm |
| **Plugging line auxiliary contact** | app. 10 mm |

(1) for cable cross-sections 95 mm²

### STANDARDS

- DIN VDE 0623-589
- DIN EN 1175 (VDE 0117)
- c UL us File E226710

### MATERIAL HOUSING

| | Standard | >PP-GF30< | >PA-GF30< |
|---|---|---|---|
| **Color** | | grey sim. RAL7016 | black sim. RAL9005 |
| **Halogen-free** | DIN VDE 0472-815 | yes | yes |
| **UV resistant** | | yes | yes |
| **Ozone resistant** | | limited | no |
| **Battery acid resistant** | DIN EN 1175 | yes | no |
| **Comparative Tracking Index** | IEC 60112 | 600 V | 550 V |

### MATERIAL CONTACTS

- Electrolytic high conductive copper Cu-ETP acc. EN 13601 and silver plated surface


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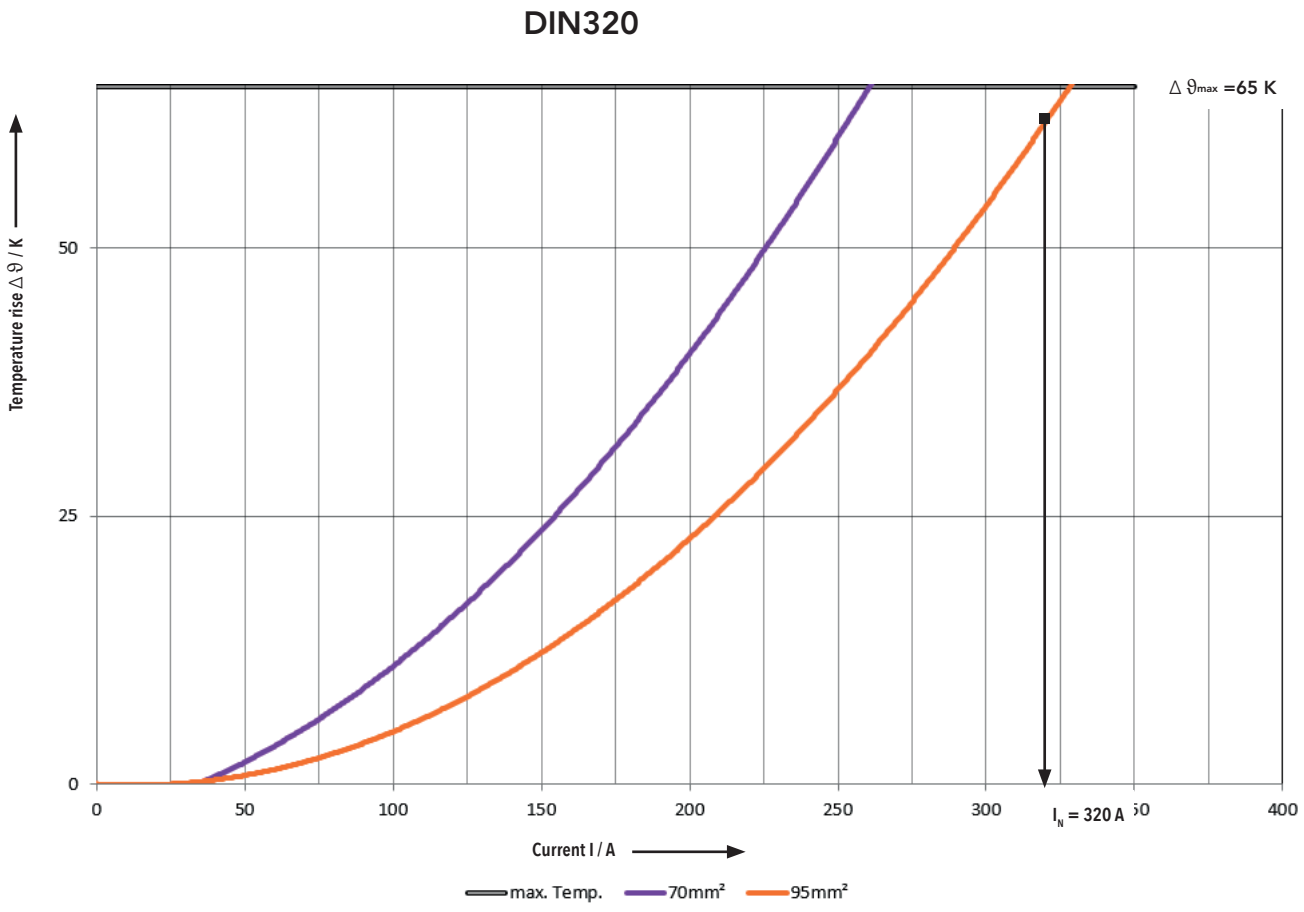
## 3. HEATING OF MAIN CONTACTS

The REMA DIN320 connector system is designed for optimum performance when used 95 mm² cross section cable according DIN VDE 0623-589.

**At other cable cross section the nominal operation current $I_N$ will be different.**

The following curves are for reference. The actual thermal performance may vary depending upon environmental conditions.




Extra fine-wired highly flexible qualitity - EN 60228/class 6

Please contact REMA for additional information concerning DIN320 battery connector system.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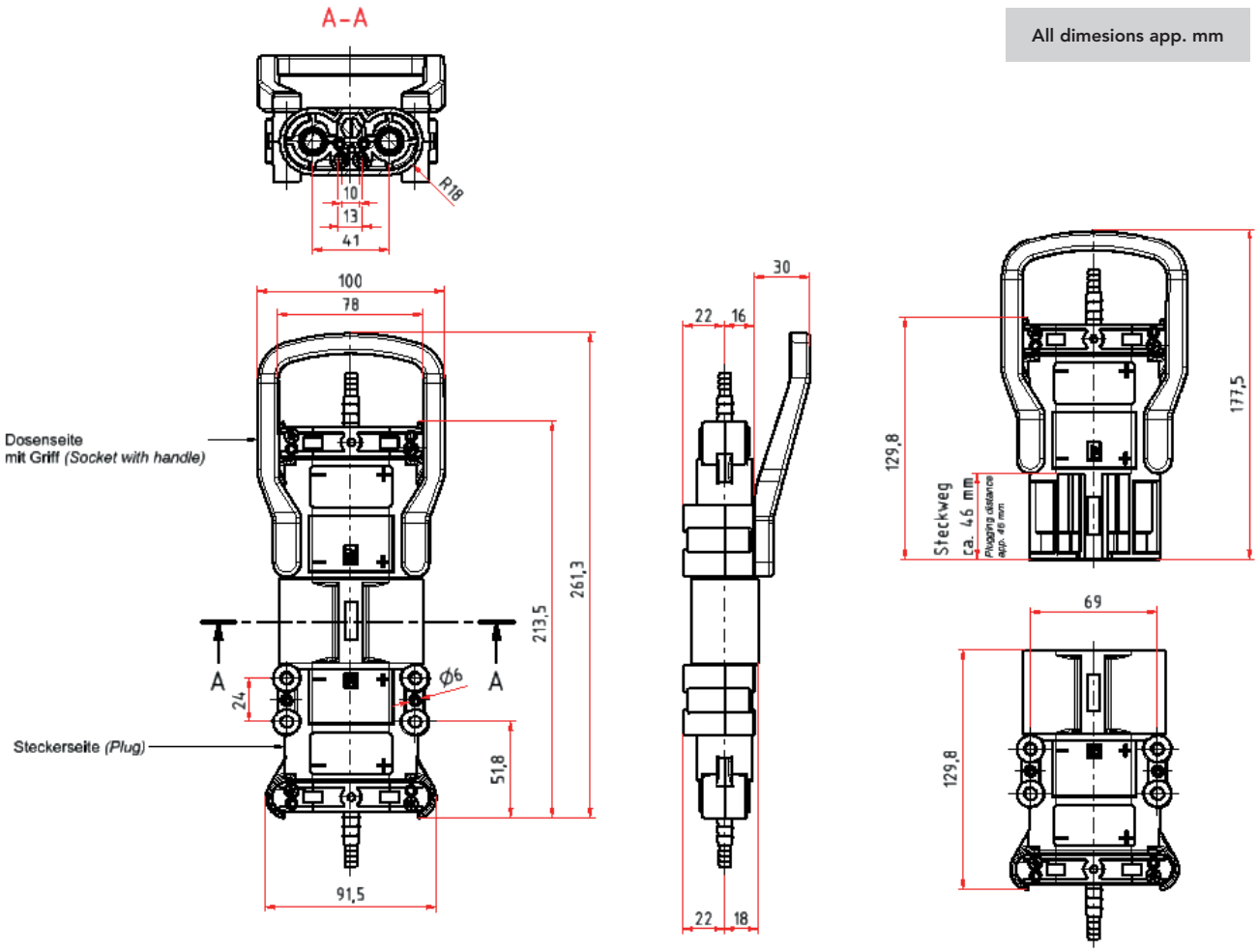
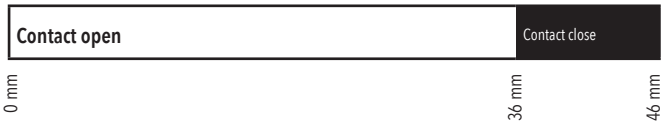
## 4. DRAWINGS

All dimesions app. mm




## Plugging distance charts REMA Battery Connector DIN320




Auxiliary contact

Main contact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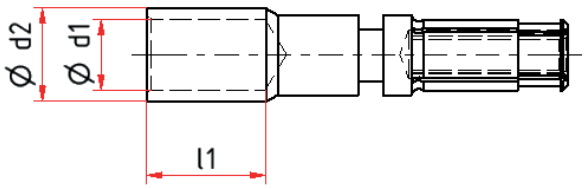
## Preparation wire acc. DIN VDE 0623-589




| **CROSS SECTION** [mm²] | **Ø d2** [mm] ±0,1 | **Ø d1** [mm] ±0,1 | **l1** [mm] +0,5 |
|---|---|---|---|
| 50 | 14,5 | 11,0 | 20,0 |
| 70 | 17,0 | 13,0 | 20,0 |
| 95 | 19,8 | 15,0 | 25,0 |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## 5. CODING

The different types of batteries which are used on the vehicle market today (wet, dry or gel batteries), may only be charged with the right charger for this type of battery.

In extreme cases, unapproved combinations of charge system and batteries can lead to the battery destruction.

In addition, only chargers and batteries with the same voltage may be combined.

The REMA Coding System meets the requirements of DIN VDE 0623-589.

### Coding pin for wet batteries

- **Current rating I:** acc. DIN VDE 0623-589
- **Color:** Grey RAL7035
- **Voltage range:** 24 V … 96 V

**Part-No.100015**

### Coding pin for dry batteries

- **Current rating I:** acc. DIN VDE 0623-589
- **Color:** Green RAL6005
- **Voltage range:** 24 V … 96 V

**Part-No. 100049**

### Universal coding pin (only for plugs)

**for wet/dry batteries**

- **Current rating I:** acc. DIN VDE 0623-589
- **Color:** Yellow RAL1018
- **Voltage range:** 24 V … 96 V

**Part-No.100048**

### Lithium Ionen coding pin

**(Plug and Socket)**

- **Current rating I:** acc. DIN VDE 0623-589
- **Color:** Blue RAL5017
- **Voltage range:** 24 V … 96 V

**Plug:** **Part-No.100020** **Socket:** **Part-No.100021**

## 6. DIE SETS

### General processing information

- Please only use suitable REMA die sets. Only those guarantee a secure electrical connection.
- Please actuate die sets always until the end.
- Only process contacts with clean sleeves. The contaminated crimpsleeves increase the contact resistance and may lead to overheating.
- Please always set the die sets centred on the crimp sleeves.

### Hydraulic tool pliers set HP60
### Type H60 - Die Sets

- Indent crimping press area 6 – 70 mm² **Set Part-No. 107138**
- Douple indent crimping press area 16 – 70 mm² **Set Part-No. 113032**

### Typ C130 - die sets

- Indent crimping press area 10 – 95 mm²
- Souple indent crimping press area 10 – 240 mm²

For further questions, please contact your REMA Sales department.


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## Selection of deliverable range of die sets type C130

| CROSS SECTION | TYPE OF DIE SET | PART-NO. |
|---|---|---|
| 10 mm² | indent | 104219 |
| 16 mm² | indent | 111092 |
| 25 mm² | indent | 111093 |
| 35 mm² | indent | 111094 |
| 50mm² | indent | 111095 |
| 70 mm² | indent | 111096 |
| 95 mm² | indent | 111097 |

| CROSS SECTION | TYPE OF DIE SET | PART-NO. |
|---|---|---|
| 10 mm² | double indent | 107181 |
| 16 mm² | double indent | 107182 |
| 25 mm² | double indent | 107187 |
| 35 mm² | double indent | 107191 |
| 50 mm² | double indent | 107196 |
| 70 mm² | double indent | 107201 |
| 95 mm² | double indent | 107204 |
| 120 mm² | double indent | 107208 |
| 240 mm² | double indent | 107212 |

## Selection of deliverable range of die sets type H60

| CROSS SECTION | TYPE OF DIE SET | PART-NO. |
|---|---|---|
| 6 mm² | indent | 110676 |
| 10 mm² | indent | 107264 |
| 16 mm² | indent | 107265 |
| 25 mm² | indent | 107266 |
| 35 mm² | indent | 107267 |
| 50 mm² | indent | 107268 |
| 70 mm² | indent | 112717 |

| CROSS SECTION | TYPE OF DIE SET | PART-NO. |
|---|---|---|
| 16 mm² | double indent | 107270 |
| 25 mm² | double indent | 107271 |
| 35 mm² | double indent | 107272 |
| 50 mm² | double indent | 107273 |
| 70 mm² | double indent | 112714 |
| 95mm² | double indent | 107275 |


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## 7. POWER CABLE

The cables of the REMA DIN High-Power DC Connector System are extra fine-wired flexible copper cables according to EN 60228 / class 6.

| CROSS SECTION | CABEL PART-NO. | |
|---|---|---|
| 10 mm² | REMA Flex® V0 119021 | H01N2-D 103115 |
| 16 mm² | REMA Flex® V0 104789 | H01N2-D 103116 |
| 25 mm² | REMA Flex® V0 104751 | H01N2-D 103121 |
| 35 mm² | REMA Flex® V0 104752 | H01N2-D 103124 |
| 50 mm² | REMA Flex® V0 104753 | H01N2-D 103128 |
| 70 mm² | REMA Flex® V0 104754 | H01N2-D 103129 |
| 95 mm² | REMA Flex® V0 104755 | H01N2-D 103133 |
| 107mm² | REMA Flex® V0 119022 | |
| 120 mm² | REMA Flex® V0 119024 | H01N2-D 103136 |
| 240 mm² | | H01N2-D 104354 |

The REMA Flex® V0 cables listed here comply with DIN EN 1175 and hav an outer insulation made of vulcanized thermoplastic elastomer (TPE-V) and ar flammable resistant class V-0 nach UL-94 / EN 60695-11-10.

For more information about REMA Flex® Power see REMA technical datasheet PE-TD-001.

On request, we are happy to evaluate your special cables and submit an offer for crimp validation.


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