HIGH POWER CONNECTORS
MOLDED REMA CONNECTOR MRC 160

Productfeatures and advantages

- Patented high power connector which has been specifically designed for the quick and opportunity charging of large battery capacities
- Compliant with DIN EN 0623-589 and DIN EN 1175
- Various cable sizes from 25 mm² to 50 mm²
- The gas-tight connection between cable and connector housing allows a higher current carrying capacity (Patented MRC technology)
- Used in combination with the REMA Flex cable, which has a special jacket, results in a significantly higher performance and durability.
- Preassembled cables in the different sizes guarantee short installation times and therefore save money.
- High current rated according to DIN VDE 0623-589 (Current Rating II) depending on the cable size
- Special characteristics of the material (chemically coupled, heat and alkali-stabilized copolymer), ensures high resistance against battery acid and UV
- High-grade contacts made out of pure high conductive Cu-ETP copper with silver plated surface and an anti-friction and tarnish coating ensure
  - a power transition with minimal losses
  - long life
- Compatible to DIN160
- All accessories of the REMA DIN160 series like pilot contacts, coding pins, airadapter and handles can be interchangeable

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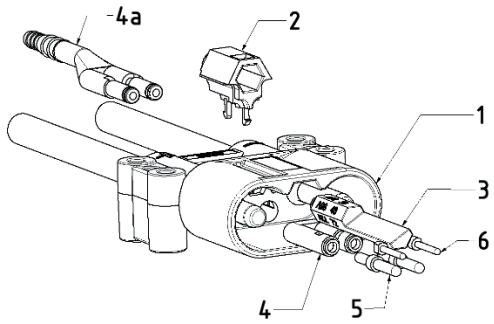
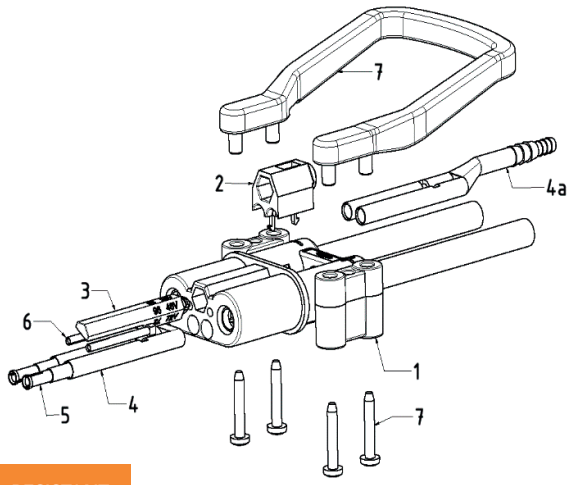
1. BASIC STRUCTURE / ORDER NUMBERS

PLUG



SOCKET



BATTERY ACID RESISTANT

POS.	DESCRIPTION	PART-NR. PLUG	PART-NR. SOCKET
1	MRC 160 – Housing 25 mm²	on demand	on demand
1	MRC 160 – Housing 35 mm²	on demand	on demand
1	MRC 160 – Housing 50 mm²	on demand	on demand
2	Locking part current rating I (160A)	110131	110138
2	Locking part current rating II (250A)	110132	110141
3 (1)	Coding pin grey (wet)	100015	100015
3 (1)	Coding pin green (dry)	100049	100049
3 (1)	Coding pin yellow (wet + dry)	100048	---
3 (2)	High power coding pin red (wet)	109629	109630
3 (2)	High power coding pin blue (dry)	104593	104594
4	Adapter for pilot contacts	100030	100029
4a	Airadapter	100465	100464
5	Pilot contact 2,5 mm²	102640	108608
6	Auxiliary contact 1,5 mm²	120745	120746
7	Handle incl. srews (set)	108879	108879

(1) see page 8 (2) see page 9

2. TECHNICAL SPECIFICATIONS

GENERAL

Nominal voltage U_N	150 V DC
Current rating I	160 A acc. DIN VDE 0623-589
Current rating II	250 A acc. DIN VDE 0623-589
Test voltage	2 kV AC acc. DIN EN 1175
Temperature range (incl. self-heating)	-20 °C … +105 °C -4 °F … +221 °F
Whole plugging line	app. 40 mm
Plugging line main contact	app. 27 mm
Plugging line auxiliary contact	app. 10 mm

STANDARDS

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

MATERIAL HOUSING

	NORM	>PP-GF30<
Color		grey sim. RAL7016
Halogen-free	DIN VDE 0472-815	yes
UV resistant		yes
Ozone resistant		limited
Battery acid resistant	DIN EN 1175	yes
Flammability	UL-94 IEC 60695	HB
Comparative Tracking Index	IEC 60112	600 V

MATERIAL CONTACTS

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

CONDUCTOR

Model	Superfine highly flexible Quality – EN 60228/class 6
Conductor Material	Cu-ETP – EN 13602

OUTER INSULATION

Material	> vulcanized thermoplastic elastomer (TPE-V) > black RAL9005 mat > halogen-free > UV- and Ozone resistant > Acid ans alkaline resistant > app. 80 Shore A > Flammable resistance V-0 acc. UL-94 / EN 60695-11-10

For more information about REMAFlex® Power cables see REMA technical datasheet PE-TD-001.
Allow us to advice you.

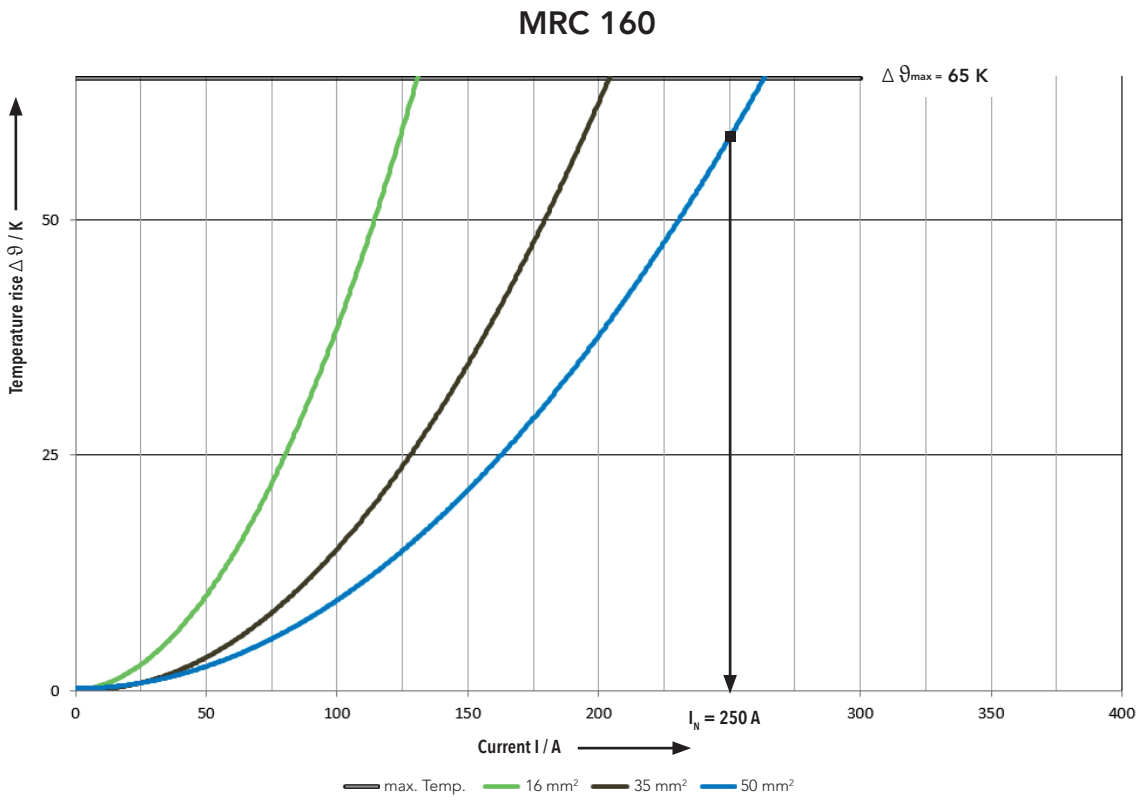
3. HEATING OF MAIN CONTACTS

The REMA® MRC 160 connector system is designed for optimum performance when used 35 mm² cross section cable according DIN VDE 0623-589.

In addition, MRC 160 connectors are able to conduct high current of 250 A according to DIN VDE 0623-589 with a conductor cross section of 50 mm².

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

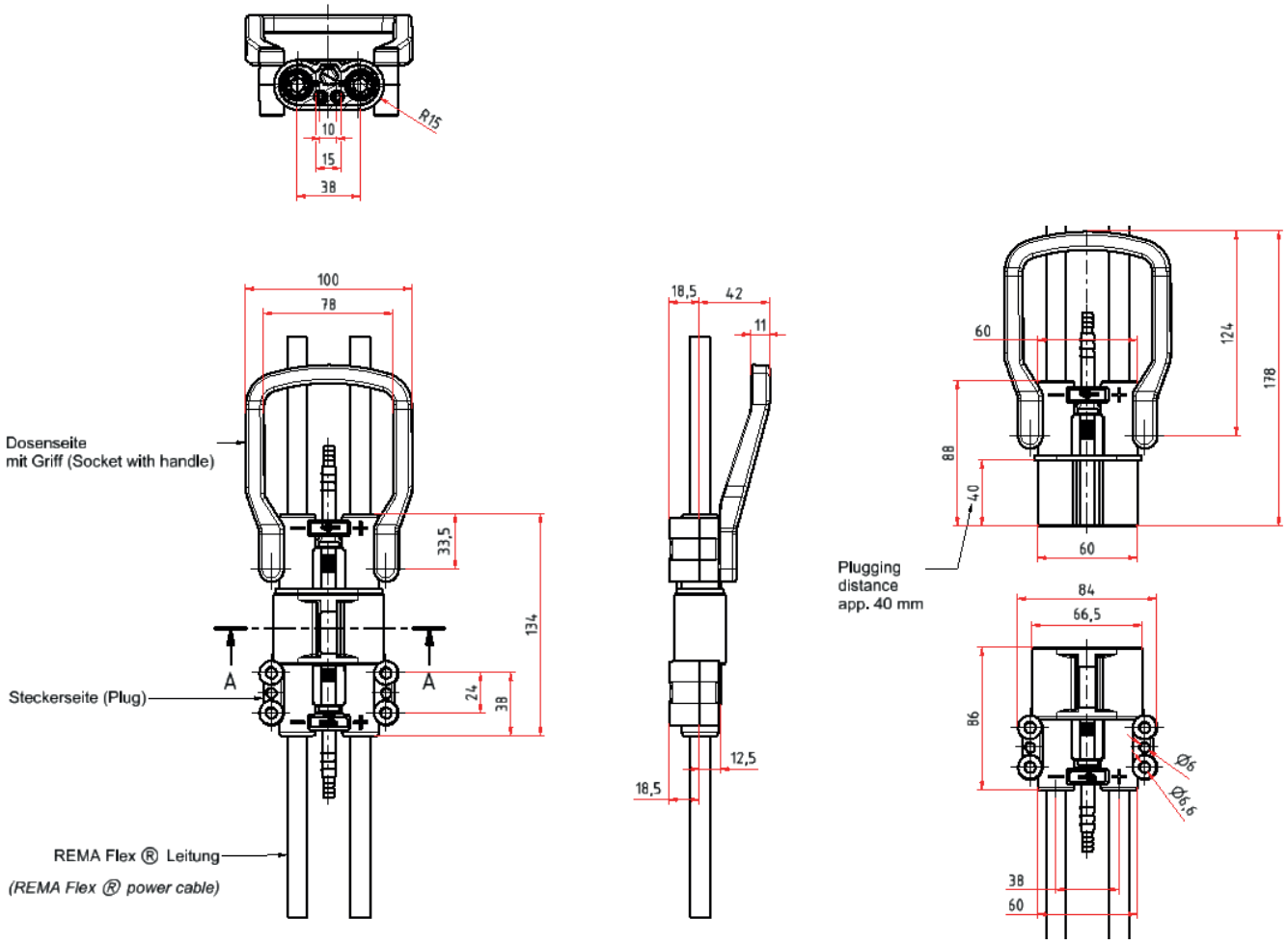
The following curves are for reference. The actual thermal performance may vary depending upon environmental conditions.



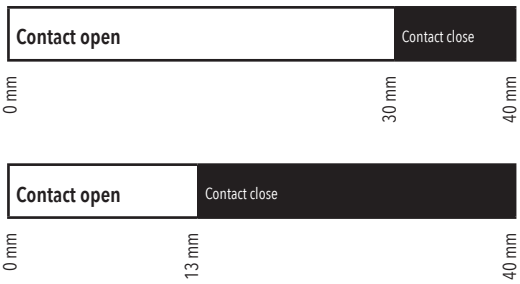
Extra fine-wired highly flexible qualitity - EN 60228/class 6

Please contact REMA for additional information concerning of the connector system MRC 160.

4. DRAWINGS

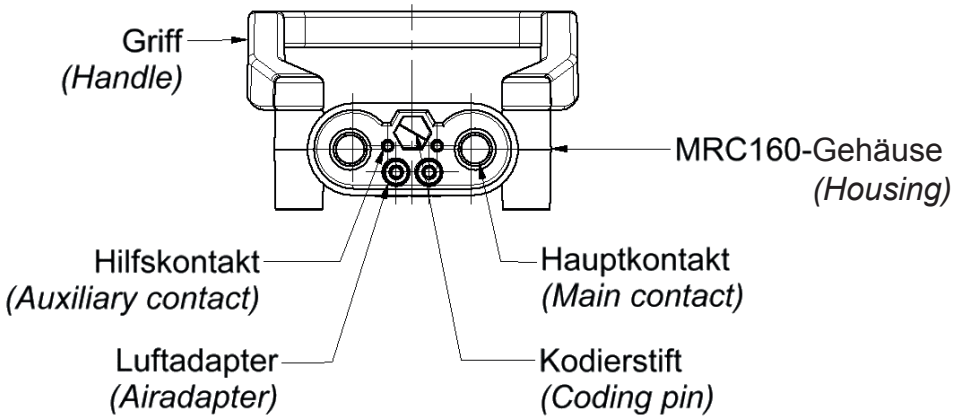


Plugging distance charts REMA® Electrical connector MRC 160



Auxiliary contact

Main contact


Griff
(Handle)
MRC160-Gehäuse
(Housing)
Hilfskontakt
(Auxiliary contact)
Hauptkontakt
(Main contact)
Luftadapter
(Airadapter)
Kodierstift
(Coding pin)

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.

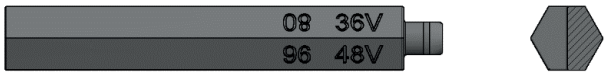
In extreme cases, unapproved combinations of charge system and batteries can lead to the battery destruction.

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-Nr. 100015

Coding pin for dry batteries

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

Part-Nr. 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-Nr. 100048

High power coding pins

The REMA electrical connector MRC 160 is able to carry the current rating II of 250 A according to DIN VDE 0623-589.

This requires the use of special high-current coding pins and the corresponding locking parts (see page 2).

To prevent connections of a high current rated charger with regular current rated batteries, the red and blue coloured coding pins are additionally equipped with a current coding on the plugs as well as voltage coding.

For the operation of a high-current MRC 250-plug device, a cable cross-section 50 mm² in REMAFlex quality is required.

High power coding pins for wet batteries

- **Current rating II:** 250 A acc. DIN VDE 0623-589
- **Color:** red RAL3020
- **Voltage range:** 24 V … 96 V

Plug: Part-Nr. 109629

Socket: Part-Nr. 109630

High power coding pins for dry batteries

- **Current rating II:** 250 A acc. DIN VDE 0623-589
- **Color:** blue RAL5017
- **Voltage range:** 24 V … 96 V

Plug: Part-Nr. 104593

Socket: Part-Nr. 104594

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