

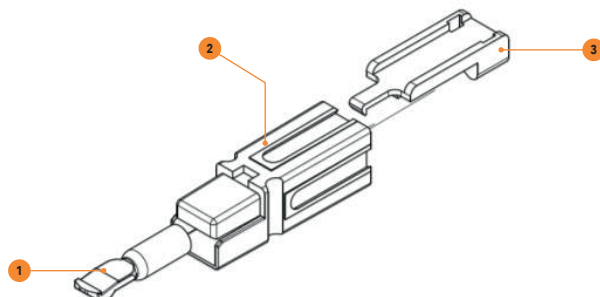
REMA BATTERY CONNECTOR WITH FLAT BLADE CONTACTS MC15/30/45 · MC75 · MC180



Product features and advantages

- > Reliable power connection solution for
 - > Electric vehicle batteries
 - > Battery chargers
 - > Forklift trucks
 - > Other DC voltage applications
- > Operating voltage determined by housing color
 - > Simplifies mating of same voltages
- > Plug and socket with identical housing design
 - > Reduces quantity of components
 - > Reduces purchasing and storage cost
- > Acid resistant housing material
- > Strain relief available
- > CE Marking & UL recognized
- > Contacts sized for AWG (American Wire Gauge)
- > REMA developed 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
 - > suitable for crimping

1. STRUCTURE / PARTNUMBER



FLAT CONNECTORS MC15/30/45 · MC75 · MC180

DESCRIPTION	CODING	SET PARTS	CROSS SECTION:	AWG 16	AWG 12	AWG 10
Monocon 15/30/45 complete red	24 V	1, 2	PART-NO.	109537	109516	109531
Monocon 15/30/45 complete black	80 V	1, 2	PART-NO.	109538	109518	109532

DESCRIPTION	CODING	SET PARTS	CROSS SECTION:	AWG 6
Monocon 75 complete red	12 V	1, 2		109541
Monocon 75 complete green	48 V	1, 2	PART-NO.	109545
Monocon 75 complete black	72 V	1, 2	PART-NO.	109544
Monocon 75 complete blue	80 V	1, 2	PART-NO.	109542

DESCRIPTION	CODING	SET PARTS	CROSS SECTION:	AWG 2
Monocon 120 complete red	12 V	1, 2	PART-NO.	109547
Monocon 120 complete green	48 V	1, 2	PART-NO.	109556
Monocon 120 complete black	72 V	1, 2	PART-NO.	109550
Monocon 120 complete blue	80 V	1, 2	PART-NO.	109548

DESCRIPTION	CODING	SET PARTS	CROSS SECTION:	AWG 1 / 0
Monocon 180 complete red	12 V	1, 2	PART-NO.	109552
Monocon 180 complete green	48 V	1, 2	PART-NO.	109551
Monocon 180 complete black	72 V	1, 2	PART-NO.	109555
Monocon 180 complete blue	80 V	1, 2	PART-NO.	109553

CABLE CLAMP FLAT CONNECTORS MONOCONS

	Moncon 15/30/45	Moncon 75	Moncon 120	Moncon 180
PART-NO.	109204	111478	111479	11480

2. TECHNICAL SPECIFICATIONS

GENERAL

CONNECTOR MODEL	MC15	MC30	MC45	MC75	MC120	MC180
> Wire size	16 AWG	12 AWG	10 AWG	6 AWG	2 AWG	1/0 AWG
> Current rating $I_N^{(1)}$	15 A	30 A	45 A	75 A	120 A	180 A
> Voltage rating	600 V	600 V	600 V	600 V	600 V	600 V
> Operating Temperature (incl. self-heating)	-20 °C ... +105 °C -4 °F ... +221 °F					

(1) depending on cross section and installation.

MATERIAL HOUSING

	NORM	>PBT/PC-Blend<
> Halogen-free	DIN VDE 0472-815	yes
> Reaction to fire	UL 94	
> UV resistant		V-0
> Ozone resistant		yes
> Creepage current resistance	IEC 60112	225 V

MATERIAL DATA CONTACTS

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

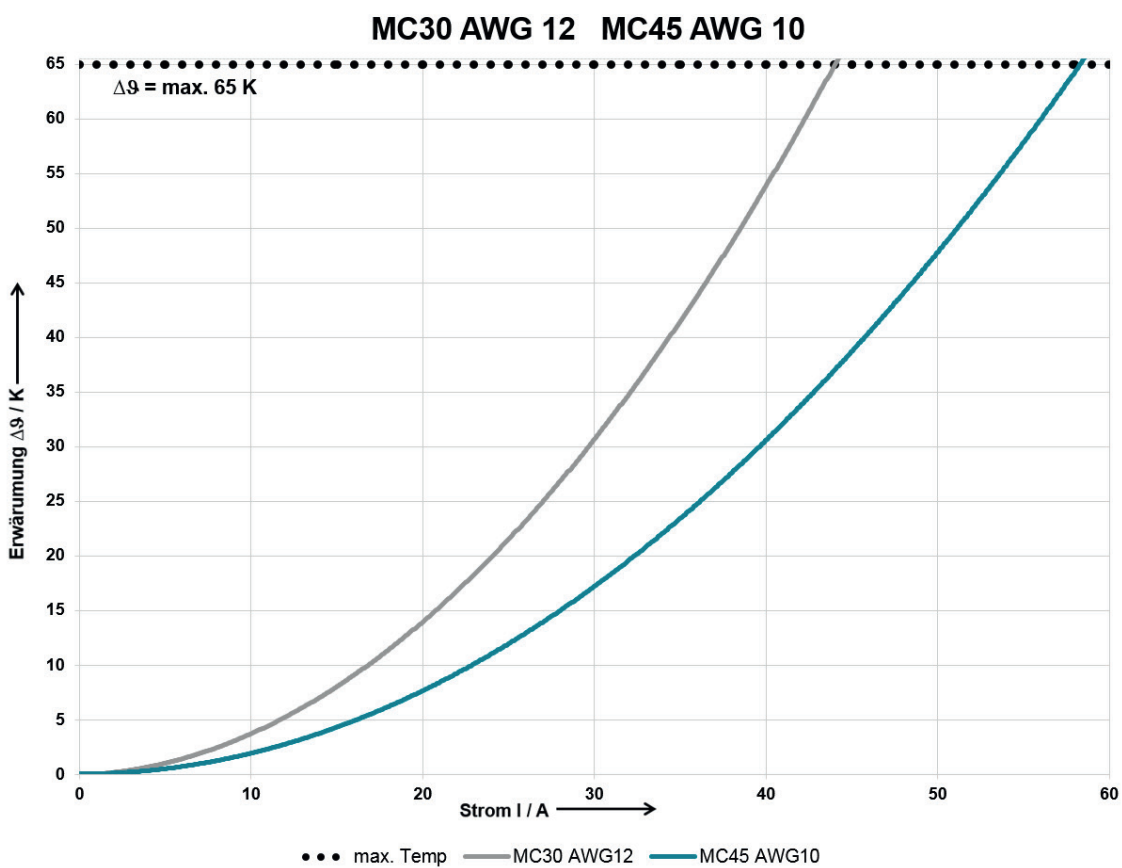
3. TEMPERATURE RISE CHARTS

MC30 MC45

The REMA® MC30 connector system is designed for optimum performance when used 12 AWG cable. The rated operating current is 30 A.

The REMA® MC45 connector system is designed for optimum performance when used 10 AWG cable. The rated operating current is 45 A.

Depending on the cross section and the laying procedure, the current rating is changed.



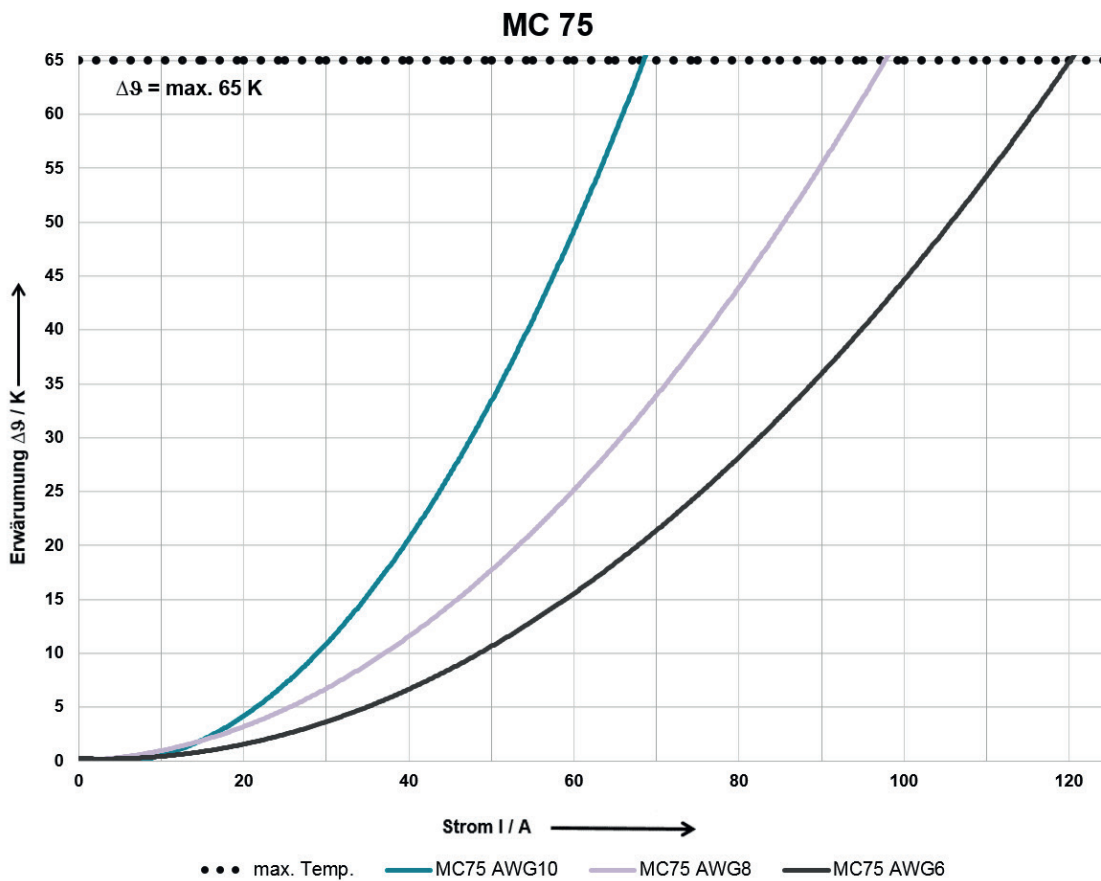
These temperature rise curves are for reference. The actual thermal performance may vary depending upon environmental conditions.

Please contact REMA for additional information concerning the MC30 and MC45.

MC75

The REMA® MC75 connector system is designed for optimum performance when used 6 AWG cable.
 The rated operating current is 75 A.

Depending on the cross section and the laying procedure, the current rating is changed.



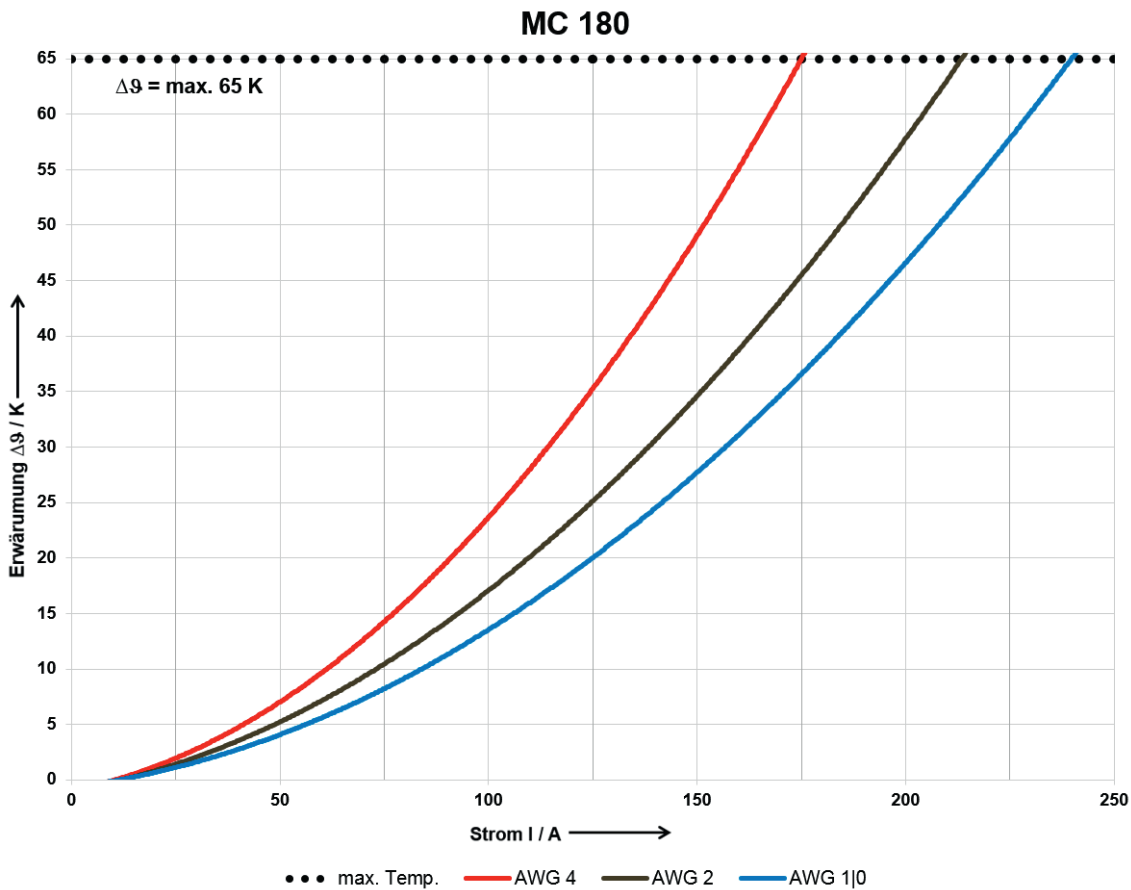
These temperature rise curves are for reference.
 The actual thermal performance may vary depending upon environmental conditions.
 Please contact REMA for additional information concerning the MC75.

MC180

The REMA® MC180 connector system is designed for optimum performance when used 1/0 AWG cross section cable.

The rated operating current is 180 A.

Depending on the cross section and the laying procedure, the current rating is changed.

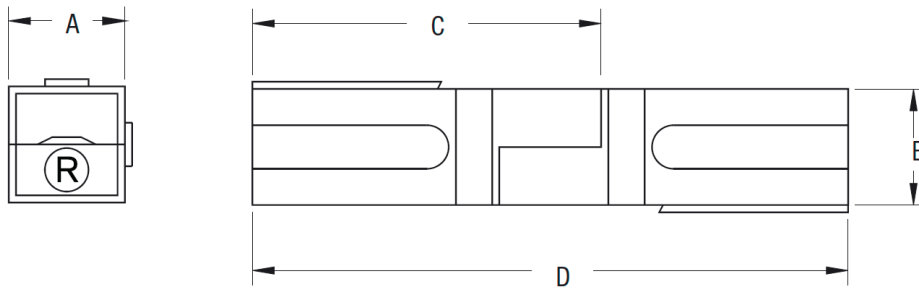


These temperature rise curves are for reference.

The actual thermal performance may vary depending upon environmental conditions.

Please contact REMA for additional information concerning the MC180.

4. DRAWINGS



TYPE	A		B		C		D	
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
> MC15/30/45	7,9	0,31	7,9	0,31	24,6	0,96	41,3	1,62
> MC75	15,9	0,62	15,9	0,62	47,6	1,87	81,4	3,20
> MC120	22,2	0,87	22,2	0,87	69,9	2,75	117,5	4,62
> MC80	28,6	1,12	28,6	1,12	82,6	3,25	139,7	5,50

5. GENERAL PROCESSING INFORMATION MC15/30/45 MC75 MC120 MC180

Installation of contacts and connector by a qualified electrician in accordance with national and local electrical codes and the following instruction only. Crimp contact to the cables according to the 's assembly instructions. The following instructions serve as a reference.

> 1.Strip wire

- > Select the correct strip length from table 1.
- > Do not cut into cable strands!

> 2. Crimpverbindung an den Kabel

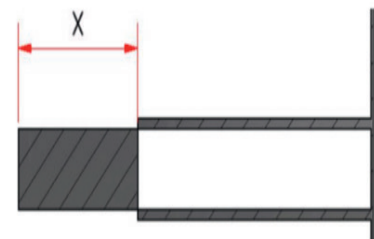
- > Select contact from table 1.
- > Use only suitable die sets!

> 3. Insert the wired contact into the rear of the hosing according to picture 2

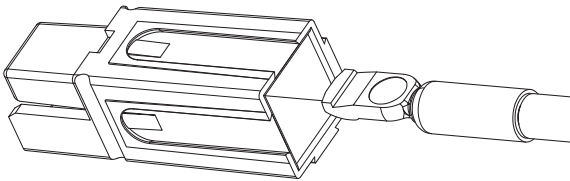
- > Make sure that the smooth contour of the contact is upwards so that the contact underside moves over the housing spring (picture 2) and is retained with an audible click.
- > To check engagement, pull gently on the cable to make sure contact is correctly locked over the housing spring.

Table 1: Overview Table

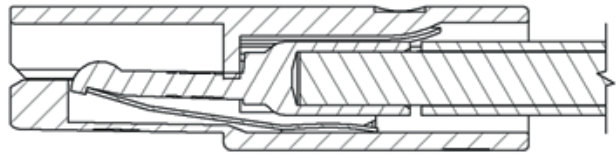
TYPE	Contact Part-No.	Wire Size AWG	Strip length „X“ in mm acc. pic. 1	Strip length „X“ in inches acc. pic. 1
> MC15	102800	AWG16	7.4	0,29
> MC30	109510	AWG12	7.5	0,29
> MC45	102801	AWG10	6.4	0,25
> MC75	109356	AWG10	13,5	0,52
> MC75	109357	AWG8	12,5	0,49
> MC75	109356	AWG6	12	0,477
> MC120	109511	AWG2	21	0,81
> MC180	109360	AWG4	26	1,01
> MC180	109364	AWG2	26,5	1,03
> MC180	109563	AWG1/0	26,4	1,02



Picture1: Strip length



Picture 2: Assembly of wired contact into housing



Picture 3: Installed contact into housing

Disassembly

- Switch off power the contact according to DIN EN 60079-14 when dis-assembling the contact.
- Remove contact by pressing the spring at the front of the connector with a small insulated screwdriver. Simultaneous while pressing the spring, pull gently on the cable to remove the contact from the housing.

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
- Double indent crimping press area 16 – 70 mm²

Set Part-No. 107138

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.

Selection of deliverable range of die sets type C130

CROSS SECTION	TYPE OF DIE SET	PART-NO.
10 mm ²	indent	104219
16 mm ²	indent	111092
25 mm ²	indent	111093
35 mm ²	indent	111094
50mm ²	indent	111095
70 mm ²	indent	111096
95 mm ²	indent	111097

CROSS SECTION	TYPE OF DIE SET	PART-NO.
10 mm ²	double indent	107181
16 mm ²	double indent	107182
25 mm ²	double indent	107187
35 mm ²	double indent	107191
50 mm ²	double indent	107196
70 mm ²	double indent	107201
95 mm ²	double indent	107204
120 mm ²	double indent	107208
240 mm ²	double indent	107212

Selection of deliverable range of die sets type H60

CROSS SECTION	TYPE OF DIE SET	PART-NO.
6 mm ²	indent	110676
10 mm ²	indent	107264
16 mm ²	indent	107265
25 mm ²	indent	107266
35 mm ²	indent	107267
50 mm ²	indent	107268
70 mm ²	indent	112717

CROSS SECTION	TYPE OF DIE SET	PART-NO.
16 mm ²	double indent	107270
25 mm ²	double indent	107271
35 mm ²	double indent	107272
50 mm ²	double indent	107273
70 mm ²	double indent	112714

7. POWER CABLE

The cables of the REMA Flat Blade Contact Connectors are extra fine-wired flexible copper cables according to EN 60228 / class 6.

CROSS SECTION	CABEL PART-NO.	
10 mm ²	REMA Flex® 104750	H01N2-D 103115
16 mm ²	REMA Flex® 103117	H01N2-D 103117
25 mm ²	REMA Flex® 103122	H01N2-D 103121
35 mm ²	REMA Flex® 103125	H01N2-D 103124
50 mm ²	REMA Flex® 103130	H01N2-D 103528
70 mm ²	REMA Flex® 103132	H01N2-D 110428
95 mm ²	REMA Flex® 103135	H01N2-D 103133
120 mm ²	Frötec Kabel 104353	Lapp Kabel 104705
240 mm ²		H01N2-D 104354
AWG 4/0	cobra wire AWG 4/0	cobra wire AWG 4/0

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