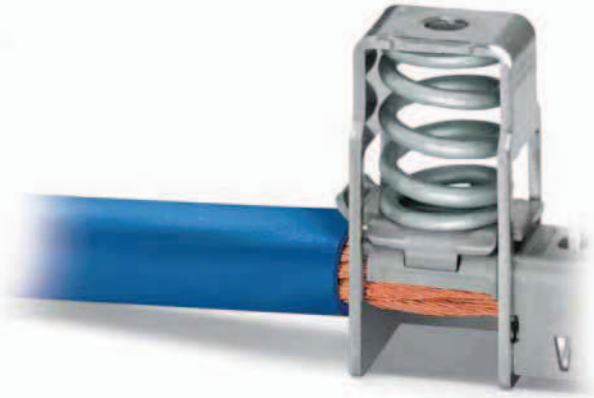
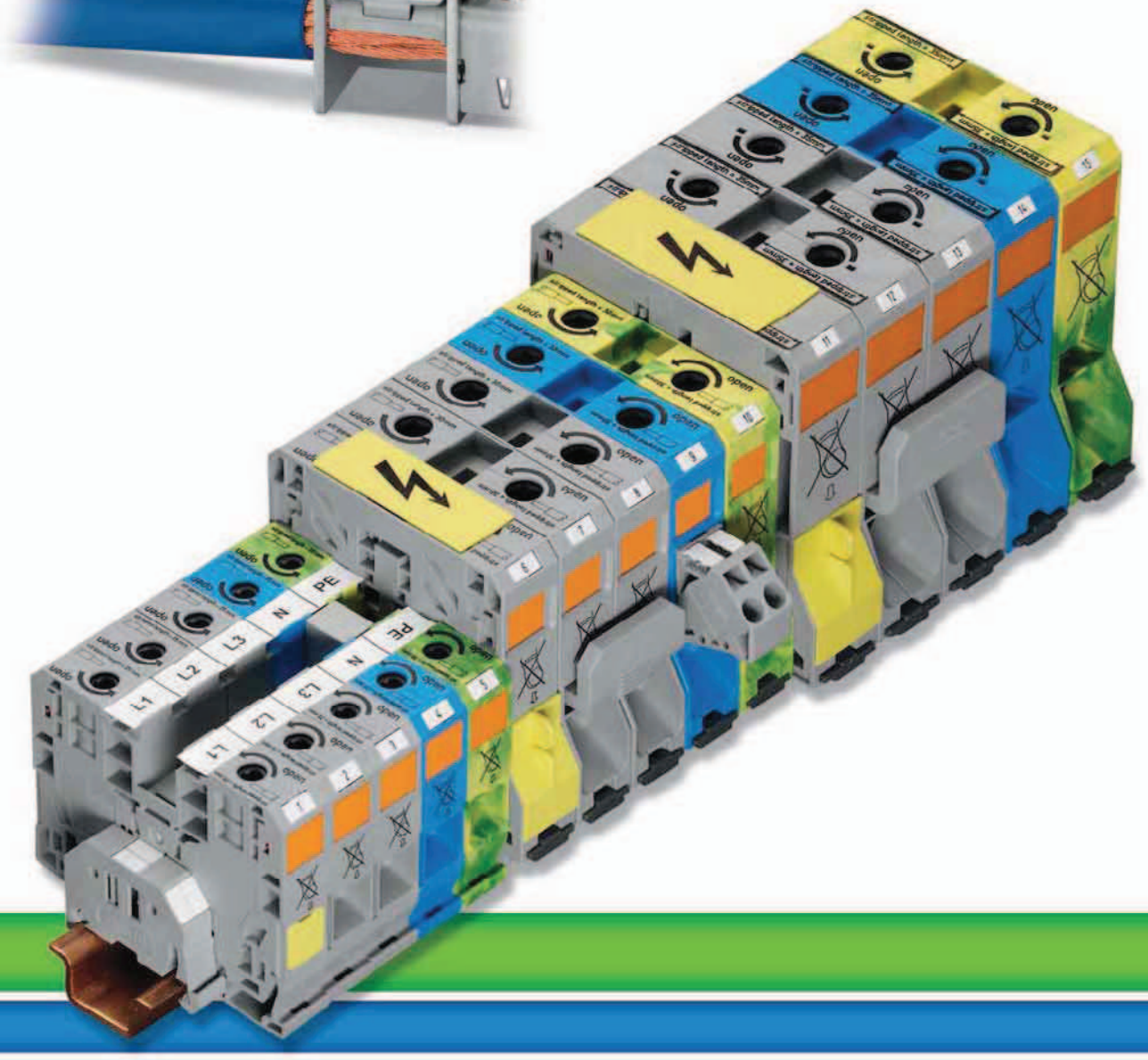
# POWER CAGE CLAMP®

**The universal connection for conductors larger than 6 AWG (16 mm²)**

Handling:
- Open clamping unit by turning a hex wrench (approx. 5.5 mm) or appropriate screwdriver counter-clockwise.
- Press integrated latch to open clamping unit for hands-free wiring.
- Insert conductor until it hits backstop.
- A small, counter-clockwise rotation closes the clamp, securing conductor.





# 10




Through Terminal Blocks, Ground Conductor Terminal Blocks
6 mm² to 35 mm² (AWG 10 - 2) — 285 Series — 462



Voltage Tap for 35 mm²/AWG 2 Terminal Blocks
0.2 mm² to 6 mm² (AWG 24 - 10) — 285 Series — 462

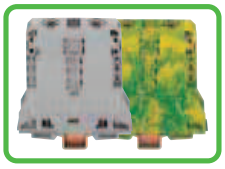
Step-down Jumper for 35 mm²/AWG 2 Terminal Blocks to TOPJOB®S Terminal Blocks (10/16 mm²/AWG 8/10) — 285 Series — 462



Through Terminal Blocks, Ground Conductor Terminal Blocks
10 mm² to 50 mm² (70 mm²) / AWG 8 - 1 — 285 Series — 463



Voltage Tap for 50 mm²/AWG 1 Terminal Blocks
0.2 mm² to 6 mm² (AWG 24 - 10) — 285 Series — 463



Through Terminal Blocks, ground conductor and Ex Terminal Blocks
25 mm² to 95 mm² (AWG 2 - 000) — 285 Series — 466



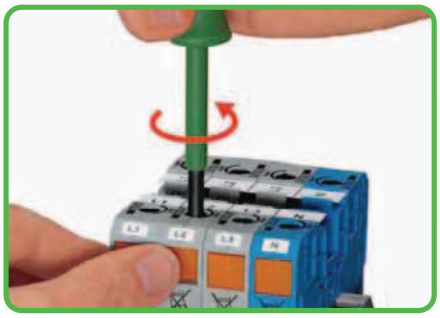
Voltage Tap for 95 mm² (AWG 4/0) Terminal Blocks
0.2 mm² to 10 mm² (AWG 24 - 8) — 285 Series — 466



Male and Female Connectors
6 mm² to 35 mm² (AWG 8 - 2) — 834 Series — 469

# High-Current, Rail-Mounted Terminal Blocks 35 mm²
# 285 Series

## Conductor termination



Insert operating tool and turn counterclockwise. Then push in orange locking tab for handsfree wiring.

## Commoning



Commoning adjacent terminal blocks using centrally positioned adjacent jumpers.

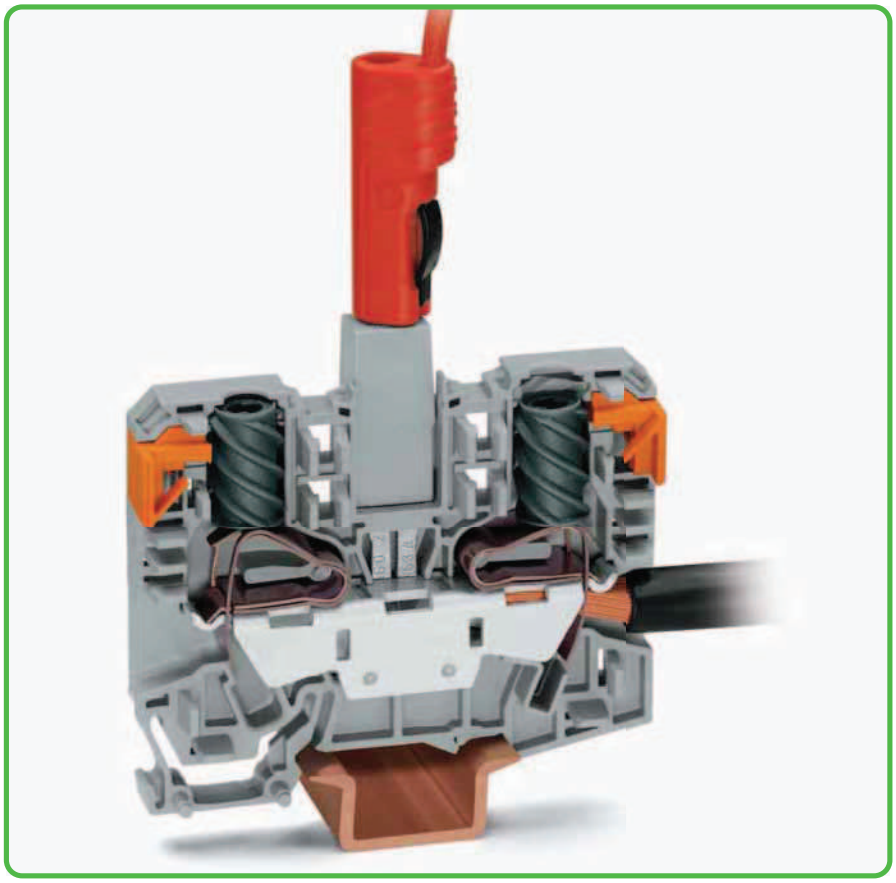


Slide the marking strip laterally to remove the jumper.

## Conductor termination



Insert stripped conductor into the clamping unit until it hits backstop; hold conductor in position.



## Conductor termination



Unlock the locking tab with a short conterclockwise turn of the operating tool ①, when unlocked allow operating tool to rotate clockwise ② to securely terminate the conductor.



Side-entry wiring means that even larger conductors, which offer limited flexibility, can be easily connected.



**POWER CAGE CLAMP clamps the following copper conductors:*** solid



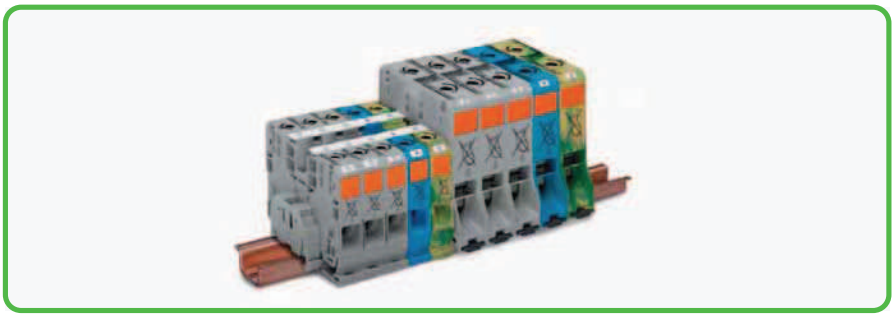
stranded



fine-stranded, also with tinned single strands

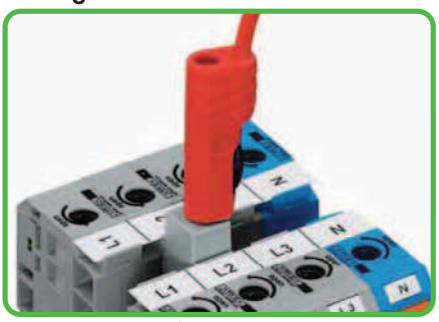
* For aluminum conductors, see notes in Section 14.

# – Description and Handling –

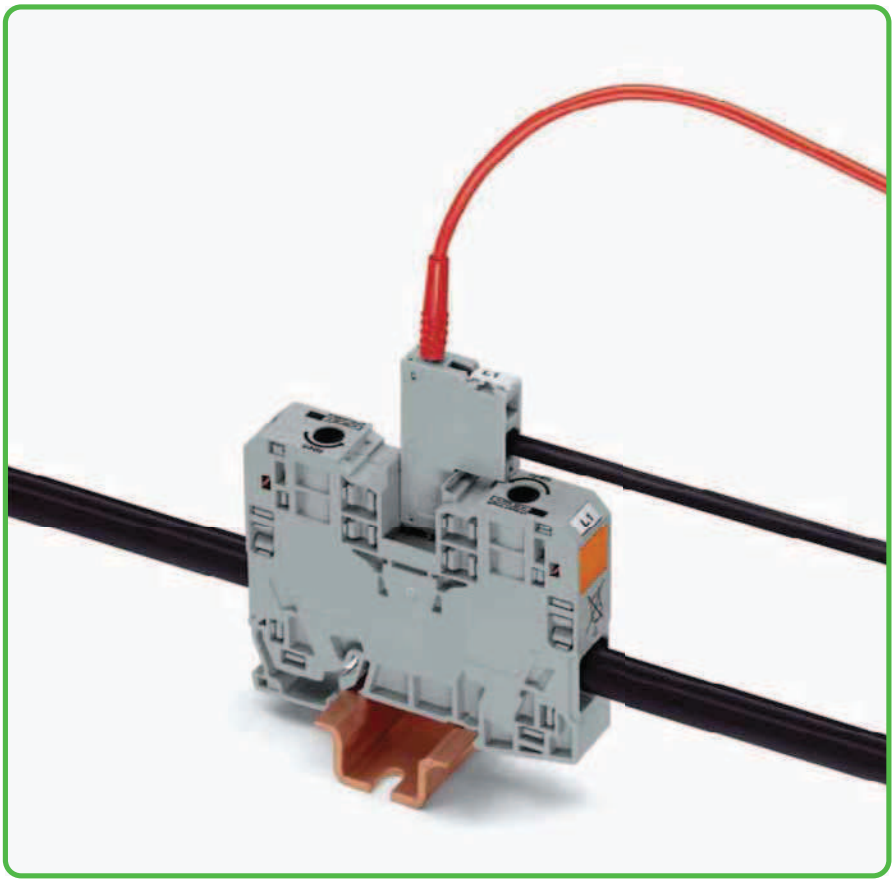


Rail-mounted, high-current terminal blocks 35 mm²/AWG 2 and 50 mm²/AWG 1

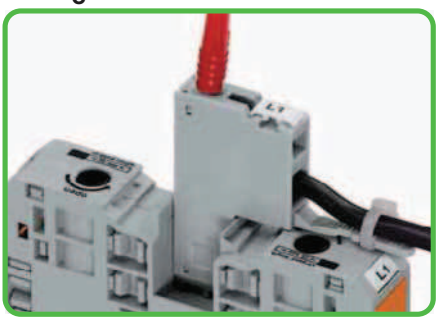
## Testing



Testing with touch-proof test sockets 4 mm Ø.
(not offered by WAGO – e.g., mfd by Multi-Contact Deutschland GmbH)



## Testing



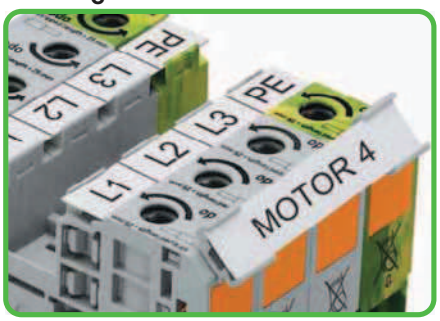
The voltage tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate and provides a testing option for test plug 2 mm Ø.

## Marking



In addition to the WMB marking system, custom marking strips can also be used.

## Marking




Adapter for marking strips or 2 x WMB

## Commoning with step-down jumpers



Commoning from 35 mm²/AWG 2
POWER CAGE CLAMP terminal blocks
to 10/16 mm² (AWG 8/10) TOPJOB® terminal blocks



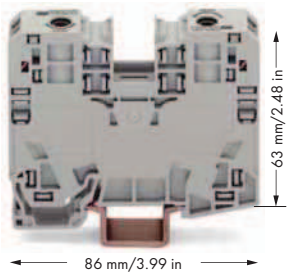
fine-stranded,
with ferrule
(gastight crimped)

# High-Current, Through and Ground Conductor Terminal Blocks 35 mm²
# 285 Series

POWER CAGE CLAMP®

| | |
|---|---|
| **6 - 35 mm²** | **AWG 10 - 2** |
| **1000 V/8 kV/3 ❶** | **600 V, 115 A** |
| **$I_N$ 125 A** | **600 V, 115 A** |
| **Terminal block width 16 mm / 0.63 in** | |
| **25 mm / 0.98 in ❸** | |

| | |
|---|---|
| **0.2 - 6 mm²** | **AWG 24 - 10** |
| **800 V/8 kV/3 ❷** | **600 V, 30 A** |
| **$I_N$ 32 A** | **600 V, 32 A** |
| **module width 8 mm / 0.315 in** | |
| **12 - 13 mm / 0.49 in ❸** | |






❶ 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❸ Strip length, see packaging or instructions.

| | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block,** to be used exclusively on DIN 35 x 15 rail | | |
| gray | **285-135** | 15 |
| blue | **285-134** | 15 |
| **2-conductor ground terminal block,** to be used exclusively on DIN 35 x 15 rail; 2.3 mm thick | | |
| green-yellow | **285-137** | 15 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Voltage tap,** for 35 mm² high-current terminal blocks | | |
| gray | **285-427** | 5 |

## Item-Specific Accessories

**Adjacent jumper,** insulated,

$I_N$ 85 A
gray **285-435** 50 (2x25)

**Step-down jumper,** insulated,

$I_N$ 90 A
gray **285-430** 50 (2x25)

**Protective warning marker,**

with high-voltage symbol, black
yellow **285-420** 100 (4x25)

**Finger guard,**

touchproof cover protects unused conductor entries
yellow **285-421** 100 (4x25)

**Test plug adapter,** 11.6 mm wide,

for 1.5 - 16 mm² terminal blocks, for test plug 4 mm Ø
gray **283-404** 25

**Operating tool with partially insulated shaft,**

type 3, (5.5 x 0.8) mm blade
**210-721** 1

**Three-phase set,**

with 35mm² high-current terminal blocks
**285-139** 1

**Marking strip,** plain,

11 mm wide,
50 m roll
white **2009-110** 1

**Marker carrier,** for POWER CAGE CLAMP 35/50/95 mm²,

5 mm wide
gray **285-442** 25

**Copper carrier rail,** acc. to EN 60715,

35 x 15 mm, 2.3 mm,
2 m/6'6" long
unslotted **210-198** 10

## Item-Specific Accessories

**Strain relief plate,** gray

1-pole **769-410** 100 (4x25)

**Test plug,**

with 500 mm cable,
2 mm Ø
red **210-136** 50

**WMB Multi marking system,**

10 strips with 10 markers per card,
for terminal widths 5 - 17.5 mm
plain **793-501** 5

**WMB Multi marking system,**

10 strips with 10 markers per card,
stretchable 5 - 5.2 mm
plain **793-5501** 5



Commoning from 35 mm²/AWG 2 POWER CAGE CLAMP terminal blocks to 10/16 mm² (AWG 8/10) TOPJOB® terminal blocks

Step-down jumpers may common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

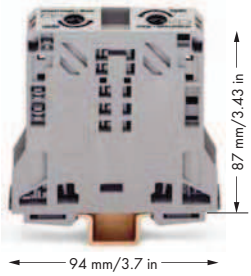
Step-down jumpers are simply pushed down for full insertion, in the same way as all other push-in jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Further terminal blocks of the smaller cross section may be commoned using standard push-in type jumper bars.

In this case, pay attention that:
The total current flowing does not exceed the rating of the step-down jumper.

For list of approvals and user guide, see pages 634 to 637.

# High-Current, Through and Ground Conductor Terminal Blocks 50 (70 “f-st”) mm²
# 285 Series

| | | | |
|---|---|---|---|
| **10 - 50 (70 "f-st") mm²** | **AWG 8 - 1** | **0.2 - 6 mm²** | **AWG 24 - 10** |
| **1000 V/8 kV/3** ❶ | **600 V, 150 A** | **1000 V/8 kV/3** ❶ | **600 V, 30 A** |
| **$I_N$ 150 A** | **600 V, 150 A** | **$I_N$ 41 A** | **600 V, 41 A** |
| **Terminal block width 20 mm / 0.787 in** | | **module width 16 mm / 0.63 in** | |
| **30 mm / 1.18 in** ❷ | | **12 - 13 mm / 0.49 in** ❷ | |






❶ 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.

❸ Jumper can only be removed or inserted when the clamp is in closed position.

| | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block,** to be used exclusively on DIN 35 x 15 rail | | |
| gray | **285-150** | 5 |
| blue | **285-154** | 5 |
| **2-conductor ground terminal block,** to be used exclusively on DIN 35 x 15 rail; 2.3 mm thick, copper | | |
| green-yellow | **285-157** | 5 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Voltage tap,** for 50 mm² high-current terminal blocks | | |
| gray | **285-447** | 5 |

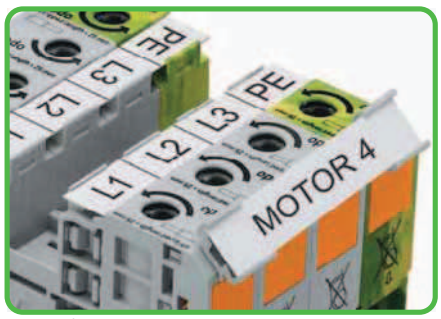
## Item-Specific Accessories

| | | | |
|---|---|---|---|
| **Adjacent jumper,** insulated, ❸ |  | $I_N$ 150 A for 1 jumper, $I_N$ 130 A for 2 - 4 jumpers | |
| | | gray | **285-450** 100 (4x25) |
| **Protective warning marker,** |  | with high-voltage symbol, black | |
| | | yellow | **285-440** 50 (2x25) |
| **Finger guard,** |  | touchproof cover protects unused conductor entries and jumper slots | |
| | | yellow | **285-441** 100 (4x25) |
| **Allen wrench with partially insulated shaft** |  | | **285-172** 1 |
| **Three-phase set,** |  | with 50 mm² high-current terminal blocks | |
| | | | **285-159** 1 |
| **WMB Multi marking system,** |  | 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | |
| | | plain | **793-501** 5 |
| **WMB Multi marking system,** |  | 10 strips with 10 markers per card, stretchable 5 - 5.2 mm | |
| | | plain | **793-5501** 5 |
| **Marking strip,** plain, |  | 11 mm wide, 50 m roll | |
| | | white | **2009-110** 1 |
| **Marker carrier,** for POWER CAGE CLAMP 35/50/95 mm², |  | 5 mm wide | |
| | | gray | **285-442** 25 |
| **Copper carrier rail,** acc. to EN 60715, |  | 35 x 15 mm, 2.3 mm, 2 m/6’6” long | |
| | | unslotted | **210-198** 10 |

## Item-Specific Accessories

| | | | |
|---|---|---|---|
| **Protective warning marker,** |  | with high-voltage symbol, black, for 5 terminal blocks | |
| | | yellow | **284-415** 50 (2x25) |
| **WMB Multi marking system,** |  | 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | |
| | | plain | **793-501** 5 |
| **WMB Multi marking system,** |  | 10 strips with 10 markers per card, stretchable 5 - 5.2 mm | |
| | | plain | **793-5501** 5 |

**Description and handling see pages 464 and 465**




Adapter for marking strips or 2 x WMB

For list of approvals and user guide, see pages 634 to 637.

# High-Current, Rail-Mounted Terminal Blocks 95 mm²
# 285 Series

## Conductor termination



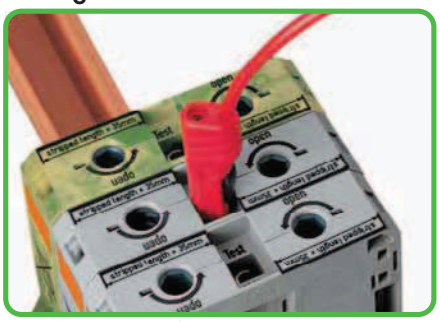
Insert Allen wrench and rotate counterclockwise. The push in orange locking tab for hands free wiring.

## Commoning



Commoning adjacent terminal blocks with adjacent jumper. Tool-free insertion of jumper above the conductor entry hole.
Rated cross section is still 95 mm²/AWG 4/0.

## Testing

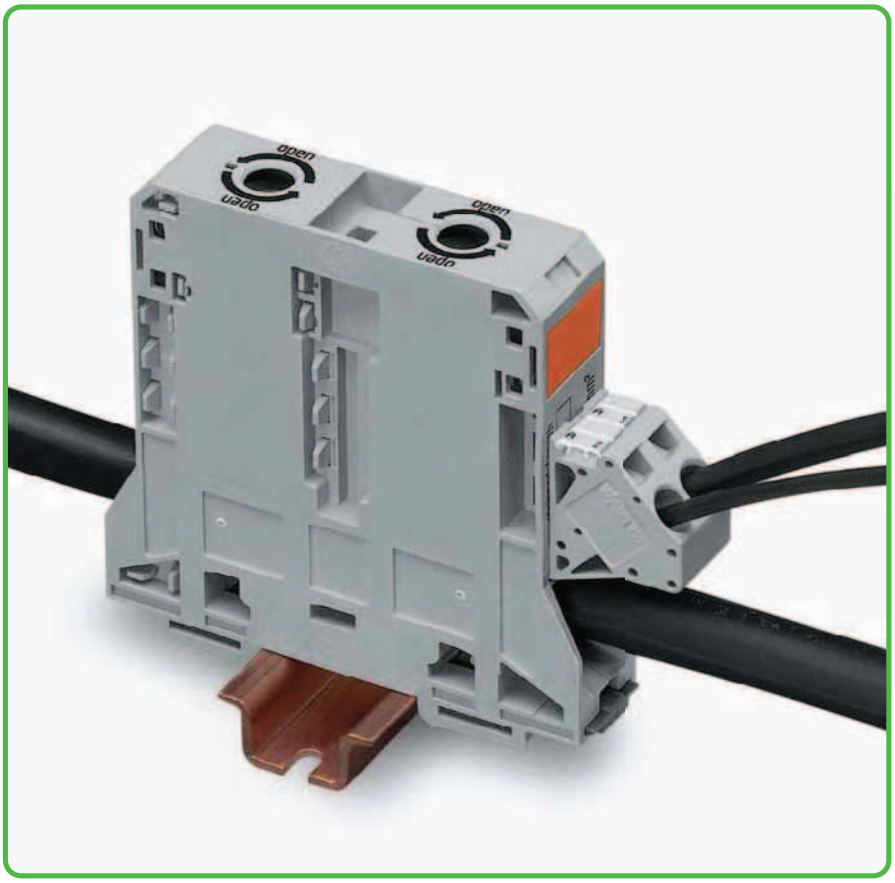


Testing with touch-proof test sockets 4 mm Ø.
(not offered by WAGO – e.g., mfd by Multi-Contact Deutschland GmbH)

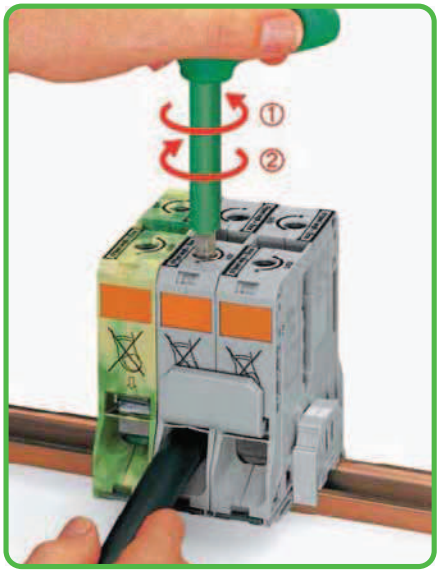
## Conductor termination



Insert stripped conductor until it hits backstop; hold this in position.




## Conductor termination



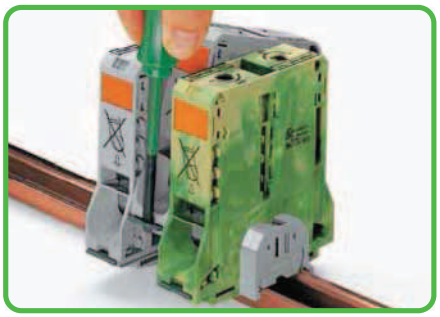

Unlock the locking tab with a short conterclockwise turn of the Allen wrench ①. When unlocked (click), allow Allen wrench to rotate clockwise (entomatic)② to securely terminate the conductor.

## Assembly



Snapping a terminal block onto the carrier rail.
From the left or from the right.

## Removal



Removing a terminal block from the assembly.
To the left or to the right.



**POWER CAGE CLAMP clamps the following copper conductors:*** solid



stranded



fine-stranded, also with tinned single strands

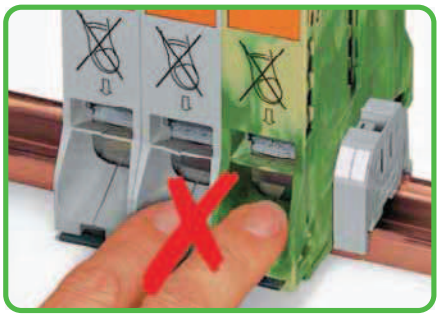
* For aluminum conductors, see notes in Section 14.

# – Description and Handling –

## Safety notes



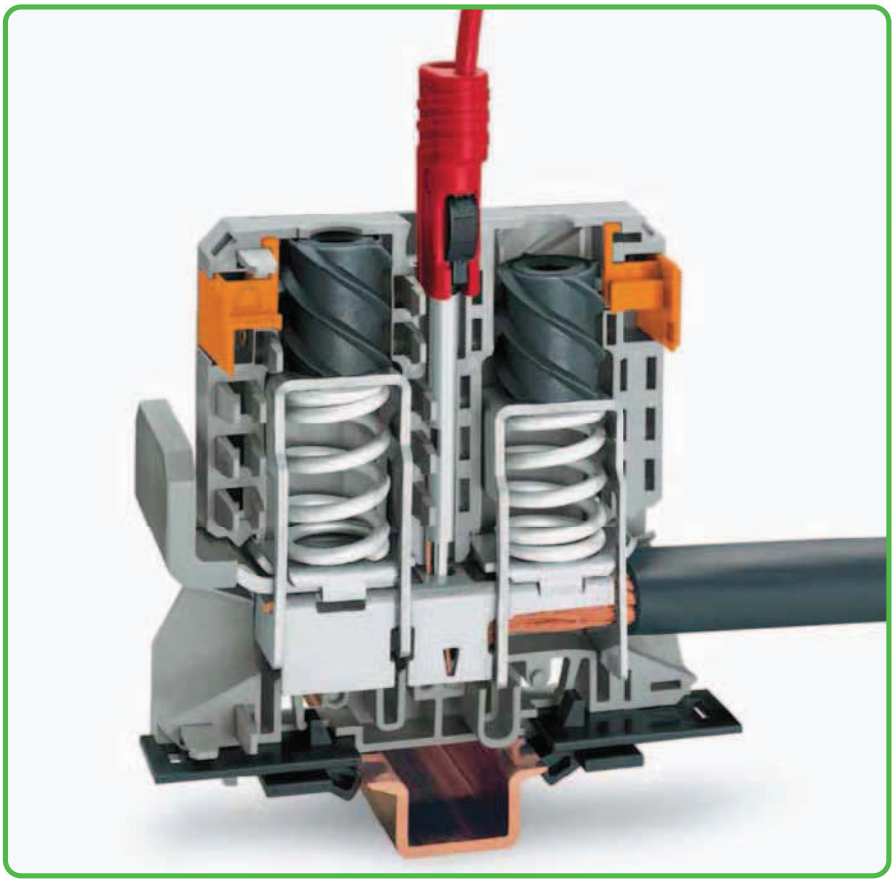
Bend the conductor before stripping!
Conductor end has to be straight!
Note: Strip length 35 mm/1.38 in.



Caution! Health hazard!
Keep your fingers out of the conductor entry hole!



Protective warning marker may indicate:
Caution! Power is still on even after switching off the main switch!

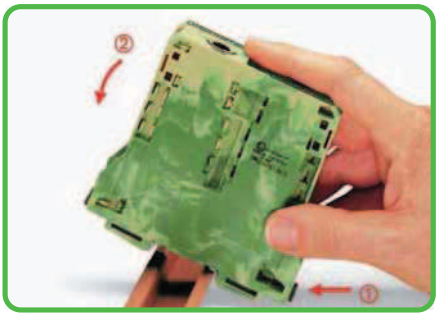


## Grounding foot



Contact pressure is distributed evenly among all defined contact zones.
Short circuit currents of more than 11,400A per second are grounded safely.

## Ground conductor terminal blocks



Firmly snap ground conductor terminal block onto the carrier rail. The grounding foot makes an automatic contact to the rail.

## Voltage tap



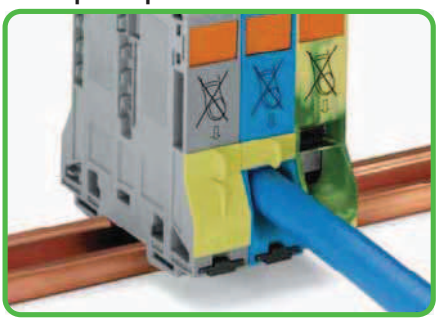


Reliably and easily tap directly onto the power supply. Insert the unwired tap before opening the pressure spring.



fine-stranded,
with ferrule
(gastight crimped)

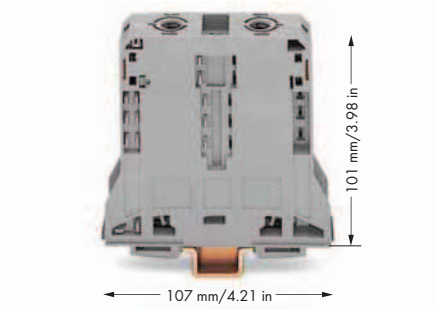
## Touchproof protection

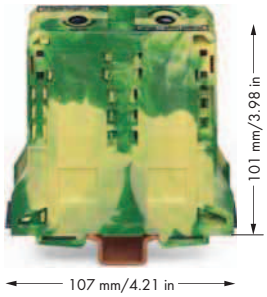


Covers provide touchproof safety by shielding unused conductor entries and jumper contact slots (detach the cover of the jumper contact slot from the touchproof cover of the conductor entry).

# High-Current Through/Ground Conductor and Ex Terminal Blocks
# 95 mm²
# 285 Series

| | | | | | |
|---|---|---|---|---|---|
| **25 - 95 mm²** | **AWG 4 - 4/0** | **25 - 95 mm²** | **AWG 4 - 000** | **0.2 - 10 mm²** ❶ | **AWG 24 - 8** |
| **1000 V/8 kV/3** ❷ | **600 V, 200 A** | | | **1000 V/8 kV/3** ❷ | |
| **$I_N$ 232 A** | **600 V, 210 A** | | | **$I_N$ 57 A** | |
| **Terminal block width 25 mm / 0.98 in** | | **Terminal block width 25 mm / 0.98 in** | | **module width 20 mm / 0.787 in** | |
| **35 mm / 1.38 in** ❸ | | **35 mm / 1.38 in** ❸ | | **12 - 13 mm / 0.49 in** ❸ | |



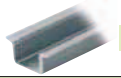



| | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block,** to be used exclusively on DIN 35 x 15 rail | | |
| gray | **285-195** | 5 |
| blue | **285-194** | 5 |
| light gray | **285-995** ❹ | 5 |

| | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor ground terminal block,** to be used exclusively on DIN 35 x 15 rail; 2.3 mm thick, copper | | |
| green-yellow | **285-197** | 5 |
| green-yellow | **285-197/999-950** ❹ | 5 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Voltage tap,** for 95 mm² high-current terminal blocks | | |
| gray | **285-407** | 5 |

## Item-Specific Accessories

| | | |
|---|---|---|
| **Adjacent jumper,** insulated, | | |
|  $I_N$ 232 A for 1 jumper, $I_N$ 130 A for 2 - 4 jumpers | | |
| gray | **285-495** | 25 |
| **Protective warning marker,** | | |
|  with high-voltage symbol, black | | |
| yellow | **285-170** | 50 (2x25) |
| **Finger guard,** | | |
|  touchproof cover protects unused conductor entries and jumper slots | | |
| yellow | **285-169** | 25 |
| **Allen wrench with partially insulated shaft** | | |
|  | **285-172** | 1 |
| **Three-phase set,** | | |
|  with 95mm² high-current terminal blocks | | |
| | **285-199** | 1 |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | | |
| plain | **793-501** | 5 |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, stretchable 5 - 5.2 mm | | |
| plain | **793-5501** | 5 |
| **Steel carrier rail,** acc. to EN 60715, | | |
|  35 x 15 mm, 2.3 mm, 2 m/6'6" long | | |
| unslotted | **210-118** | 10 |
| **Copper carrier rail,** acc. to EN 60715, | | |
|  35 x 15 mm, 2.3 mm, 2 m/6'6" long | | |
| unslotted | **210-198** | 10 |
| **Marker carrier,** for POWER CAGE CLAMP 35/50/95 mm², | | |
|  5 mm wide | | |
| gray | **285-442** | 25 |

## Item-Specific Accessories

| | | |
|---|---|---|
| **Adjacent jumper,** insulated, | | |
|  $I_N$ 232 A for 1 jumper, $I_N$ 130 A for 2 - 4 jumpers | | |
| gray | **285-495** | 25 |
| **Protective warning marker,** | | |
|  with high-voltage symbol, black | | |
| yellow | **285-170** | 50 (2x25) |
| **Finger guard,** | | |
|  touchproof cover protects unused conductor entries and jumper slots | | |
| yellow | **285-169** | 25 |
| **Allen wrench with partially insulated shaft** | | |
|  | **285-172** | 1 |
| **Three-phase set,** | | |
|  with 95mm² high-current terminal blocks | | |
| | **285-199** | 1 |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | | |
| plain | **793-501** | 5 |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, stretchable 5 - 5.2 mm | | |
| plain | **793-5501** | 5 |
| **Copper carrier rail,** acc. to EN 60715, | | |
|  35 x 15 mm, 2.3 mm, 2 m/6'6" long | | |
| unslotted | **210-198** | 10 |

## Item-Specific Accessories

| | | |
|---|---|---|
| **Protective warning marker,** | | |
|  with high-voltage symbol, black, for 5 terminal blocks | | |
| yellow | **284-415** | 50 (2x25) |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | | |
| plain | **793-501** | 5 |
| **WMB Multi marking system,** | | |
|  10 strips with 10 markers per card, stretchable 5 - 5.2 mm | | |
| plain | **793-5501** | 5 |

For list of approvals and user guide, see pages 634 to 637.