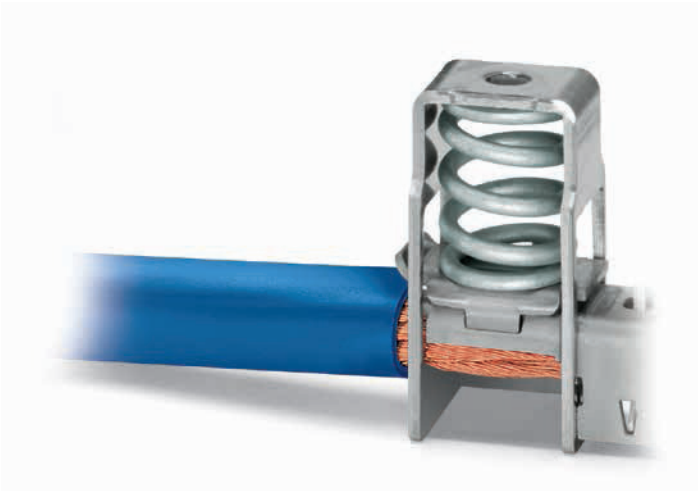


POWER CAGE CLAMP®

The universal connection for conductors larger than 2 AWG (35 mm²)

Handling:

- Open clamp by turning an Allen wrench counter-clockwise.
- Press integrated latch to open clamping unit for hands-free wiring.
- Insert conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.



High-Current, Rail-Mounted Terminal Blocks

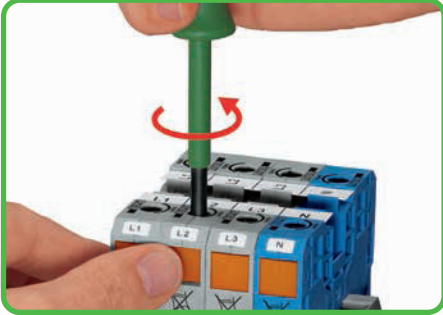
High-Current Connectors

Side-Entry Wiring

| | | | Page |
|---|---|------------|------|
|  | Through Terminal Blocks and Ground Conductor Terminal Blocks 6 mm ² to 35 mm ² (10-2 AWG) | 285 Series | 168 |
|  | Power Tap for 35 mm² (2 AWG) Terminal Blocks 0.2 mm ² to 6 mm ² (24-10 AWG) | 285 Series | 168 |
|  | Through Terminal Blocks and Ground Conductor Terminal Blocks 10 mm ² to 50 mm ² (70 mm ²) / 8-1/0 AWG | 285 Series | 169 |
|  | Power Tap for 50 mm² (1 AWG) Terminal Blocks 0.2 mm ² to 6 mm ² (24-10 AWG) | 285 Series | 169 |
|  | Through Terminal Blocks and Ground Conductor Terminal Blocks 25 mm ² to 95 mm ² (4-4/0 AWG) | 285 Series | 172 |
|  | Power Tap for 95 mm² (4/0 AWG) Terminal Blocks 0.2 mm ² to 10 mm ² (24-8 AWG) | 285 Series | 172 |
|  | Through Terminal Blocks and Ground Conductor Terminal Blocks 50 mm ² to 185 mm ² (1/0 AWG - 350 kcmil) | 285 Series | 173 |
|  | Male and Female Connectors 6 mm ² to 35 mm ² (8-2 AWG) | 834 Series | 175 |

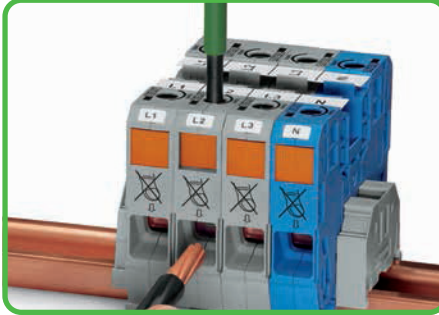
High-Current, Rail-Mounted Terminal Blocks 35 mm² 285 Series

Conductor termination – Step 1



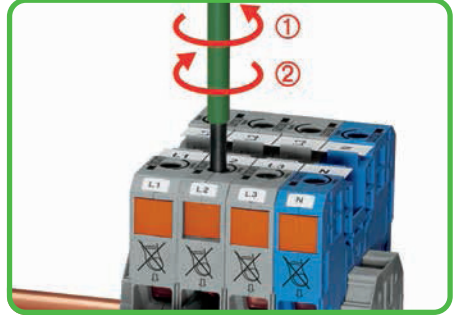
Insert operating tool and turn counterclockwise. Then push in orange locking tab for handsfree wiring.

Conductor termination – Step 2



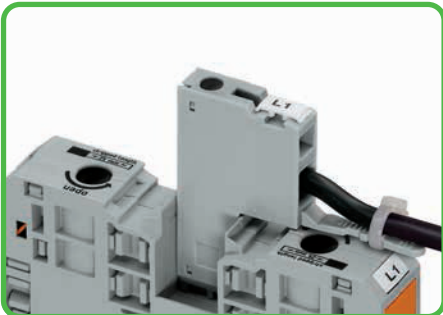
Insert stripped conductor into the clamping unit until it hits backstop; hold conductor in position.

Conductor termination – Step 3

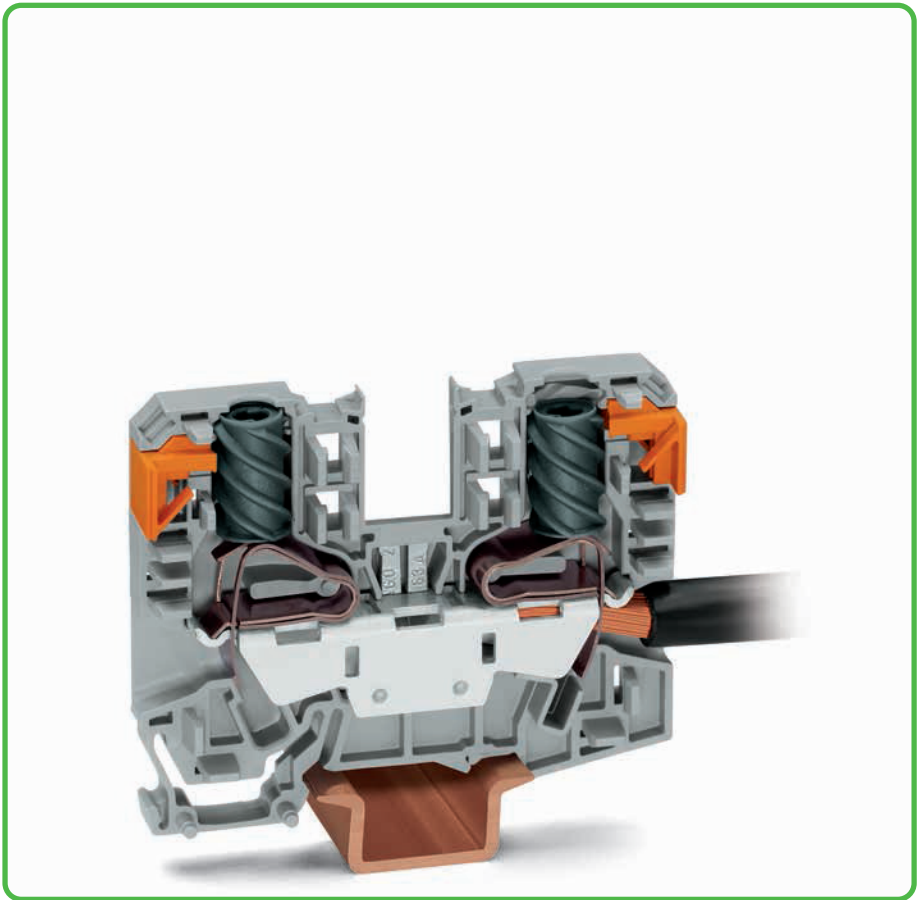


Unlock the locking tab with a short counterclockwise turn of the operating tool ①, when unlocked allow operating tool to rotate clockwise ② to securely terminate the conductor.

Voltage tap



The voltage tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate.



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



POWER CAGE CLAMP clamps the following copper conductors: * solid



stranded

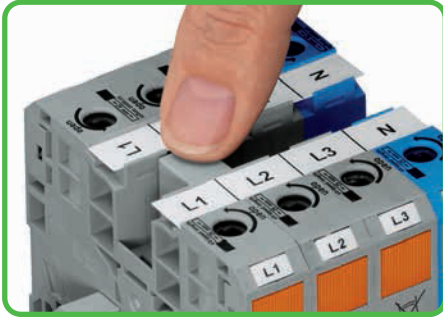


fine-stranded, also with tinned single strands

* For aluminum conductors, see notes in Section 14.

- Description and Handling -

Commoning



Commoning adjacent terminal blocks using centrally positioned adjacent jumpers.

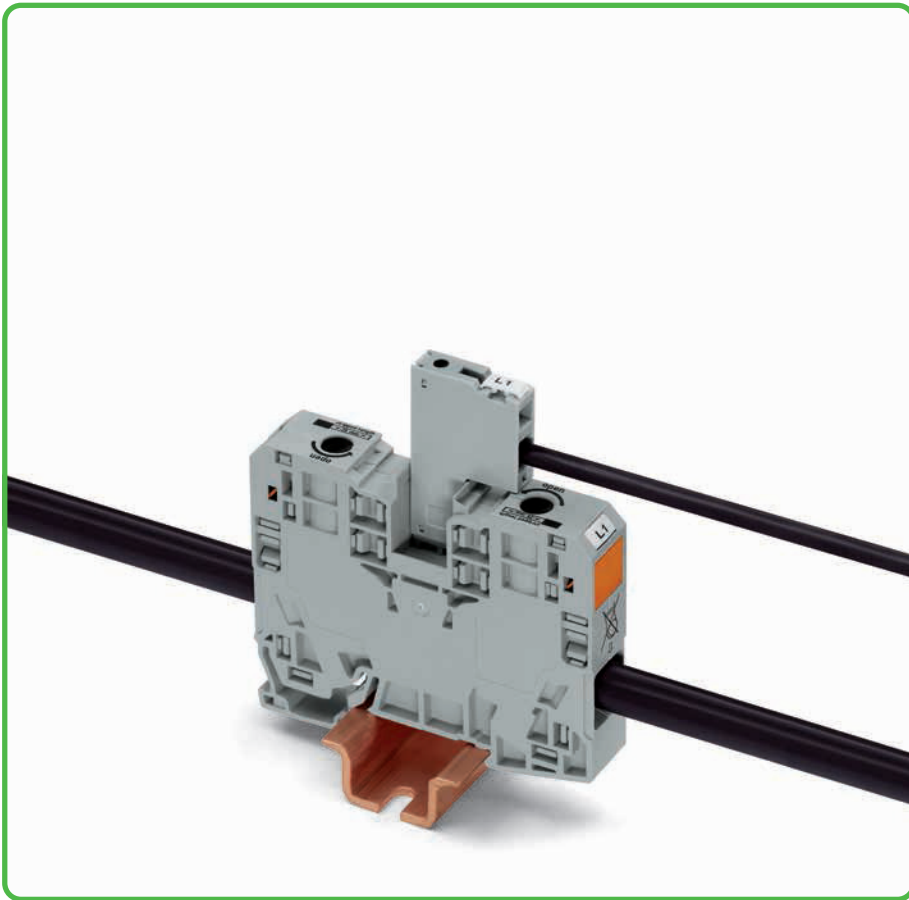


Slide the marking strip laterally to remove the jumper.

Commoning with step-down jumpers



Commoning from 35 mm²/AWG 2 POWER CAGE CLAMP terminal blocks to 10/16 mm² (AWG 8/10) TOPJOB®S terminal blocks (2010 and 2016 Series)



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.

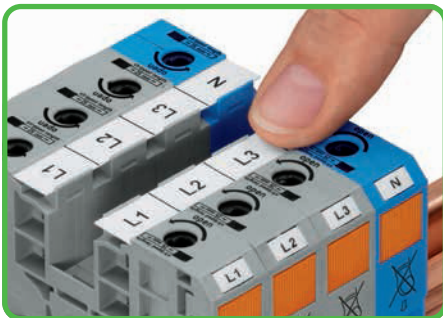
Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Further terminal blocks of the smaller cross section may be commoned using standard adjacent jumpers.

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



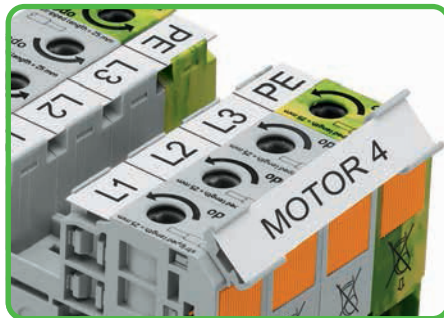
Side-entry wiring means that even larger conductors, which offer limited flexibility, can be easily connected.

Marking



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

Marking



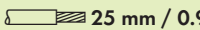
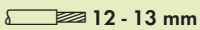
Adapter for marking strips or 2 x WMB

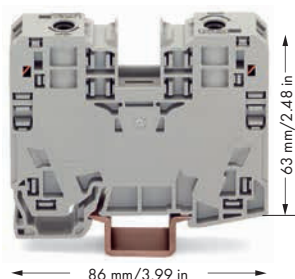


fine-stranded, with ferrule (gastight crimped)

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

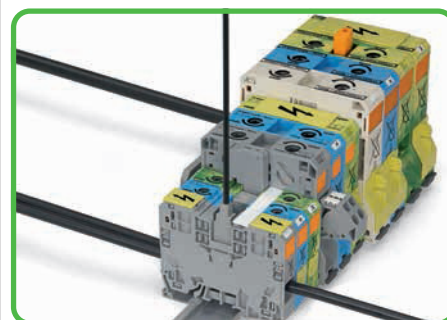


| | | | |
|---|--|--|---|
| 6 - 35 mm² 1000 V/8 kV/3 ① I _N 125 A Terminal block width 16 mm / 0.63 in  25 mm / 0.98 in ③ | AWG 10 - 2 600 V, 115 A ^{9A} 600 V, 115 A ⁶ | 0.2 - 6 mm² 800 V/8 kV/3 ② I _N 32 A Module width 8 mm / 0.315 in  12 - 13 mm / 0.49 in ③ | AWG 24 - 10 600 V, 30 A ^{9A} 600 V, 32 A ⁶ |
|---|--|--|---|



- ① 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see Section 14)
- ② 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see Section 14)
- ③ Strip length, see packaging or instructions.
- ④ See application notes for:
Step-down jumper, page 167

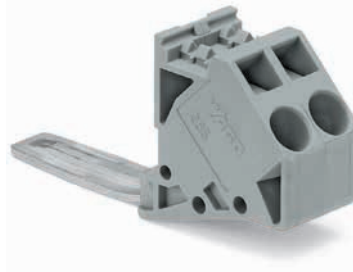
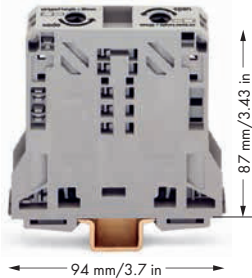
| Item No. | Pack. Unit | Item No. | Pack. Unit |
|--|--------------------|---|--------------------|
| 2-conductor through terminal block , to be used exclusively on DIN 35 x 15 rail | | Voltage tap , for 35 mm ² high-current terminal blocks | |
| ● gray | 285-135 15 | ● gray | 285-427 5 |
| ● blue | 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-Specific Accessories | | Item-Specific Accessories | |
| Adjacent jumper , insulated, I _N 85 A | | Strain relief plate , gray | |
| gray | 285-435 50 (2x25) | 1-pole | 769-410 100 (4x25) |
| Step-down jumper , insulated, ④ I _N 90 A | | Test plug , with 500 mm cable, | |
| gray | 285-430 50 (2x25) | 2 mm Ø | |
| Protective warning marker , with high-voltage symbol, black | | red | 210-136 50 |
| yellow | 285-420 100 (4x25) | WMB Multi marking system , 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | |
| Finger guard , touchproof cover protects unused conductor entries | | plain | 793-501 5 |
| yellow | 285-421 100 (4x25) | WMB Multi marking system , 10 strips with 10 markers per card, stretchable 5 - 5.2 mm | |
| Test plug adapter , 11.6 mm wide, for 1.5 - 16 mm ² terminal blocks, for 4 mm Ø test plug | | plain | 793-5501 5 |
| 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 35mm ² high-current terminal blocks | | | |
| | 285-139 1 | | |
| Voltage tap , I _N 24 A, with 500 mm cable, for terminal blocks 16 mm ² (283/783 Series) and 35 mm ² (285/785 Series) | | | |
| gray | 283-407 25 | | |
| Marking strip , plain, 11 mm wide, 50 m roll | | | |
| white | 2009-110 1 | | |
| Copper carrier rail , acc. to EN 60715, 35 x 15 mm, 2.3 mm, 2 m/6'6" long | | | |
| unslotted | 210-198 10 | | |



Always push voltage tap (283-407) down into the terminal block until fully inserted!

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

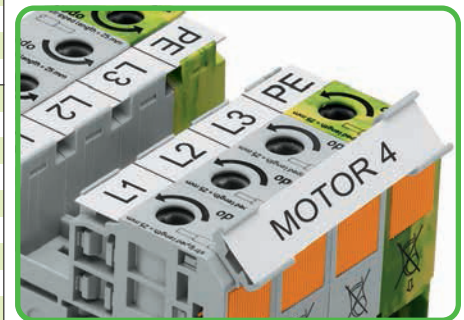
| | | | |
|--|---|---|---|
| 10 - 50 (70 "f-st") mm ² 1000 V/8 kV/3 ① I _N 150 A | AWG 8 - 1/0 600 V, 150 A ② 600 V, 150 A ③ | 0.2 - 6 mm ² 1000 V/8 kV/3 ① I _N 41 A | AWG 24 - 10 600 V, 30 A ② 600 V, 41 A ③ |
| Terminal block width 20 mm / 0.787 in 30 mm / 1.18 in ② | | Module width 16 mm / 0.63 in 12 - 13 mm / 0.49 in ② | |



- ① 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see Section 14)
- ② Strip length, see packaging or instructions.
- ③ Jumper can only be removed or inserted when the clamp is in closed position.

| Item No. | Pack. Unit | Item No. | Pack. Unit |
|---|--------------------|---|-------------------|
| 2-conductor through terminal block , to be used exclusively on DIN 35 x 15 rail | | Voltage tap , for 50 mm ² high-current terminal blocks | |
| gray | 285-150 5 | gray | 285-447 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-Specific Accessories | | Item-Specific Accessories | |
| Adjacent jumper , insulated, ③ I _N 150 A for 1 jumper, I _N 130 A for 2 - 4 jumpers | | Protective warning marker , with high-voltage symbol, black, for 5 terminal blocks | |
| gray | 285-450 100 (4x25) | yellow | 282-415 50 (2x25) |
| Protective warning marker , with high-voltage symbol, black | | WMB Multi marking system , 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm | |
| yellow | 285-440 50 (2x25) | plain | 793-501 5 |
| Finger guard , touchproof cover protects unused conductor entries and jumper slots | | WMB Multi marking system , 10 strips with 10 markers per card, stretchable 5 - 5.2 mm | |
| yellow | 285-441 100 (4x25) | plain | 793-5501 5 |
| Allen wrench with partially insulated shaft | | | |
| | 285-172 1 | | |
| Three-phase set , with 50 mm ² 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 mm ² , 10.4 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 | | |

Description and handling see pages 170 and 171



Adapter for marking strips or 2 x WMB

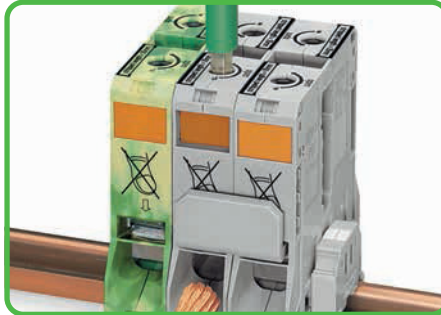
High-Current, Rail-Mounted Terminal Blocks 50 mm² to 185 mm² 285 Series

Conductor termination – Step 1



Rotate Allen wrench counterclockwise to the stop ①. Then, push in orange locking tab for hands-free wiring.

Conductor termination – Step 2



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

Conductor termination – Step 3



Unlock the locking tab with a short counter-clockwise turn ② of the Allen wrench to securely terminate the conductor.

Safety notes



For an optimum clamping force:
1. Bend conductor
2. Cut conductor to length (Conductor end must be straight!)
3. Strip conductor



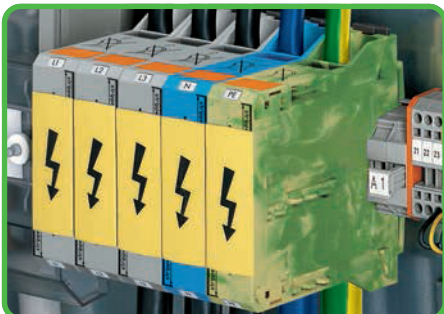
Always observe the printed strip length!

Grounding foot

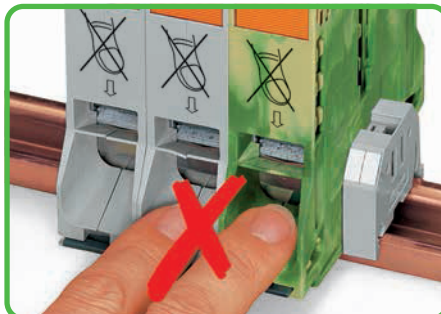


Ground conductor terminal blocks (limited to max. 120 mm²/250 MCM acc. to EN 60947-7-2) must be snapped onto a 2.3 mm thick copper carrier rail.

Safety notes



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

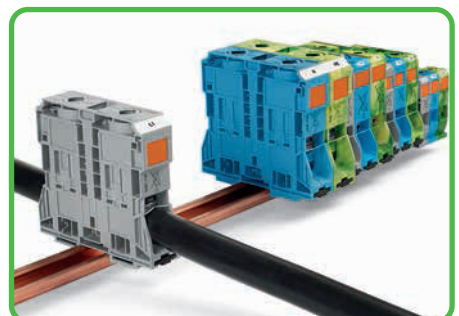


Caution! Health hazard! Keep your fingers out of the conductor entry hole!

Touchproof protection



Yellow, detachable covers provide touchproof safety by shielding jumper contact slots and/or unused conductor entries.



Rail-mounted, high-current terminal blocks 35 mm²/AWG 2, 50 mm²/AWG 1, 95 mm²/AWG 4/0 and 185 mm²/350 kcmil



POWER CAGE CLAMP clamps the following copper conductors: * solid



stranded

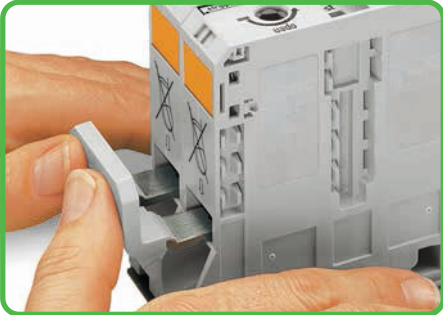


fine-stranded, also with tinned single strands

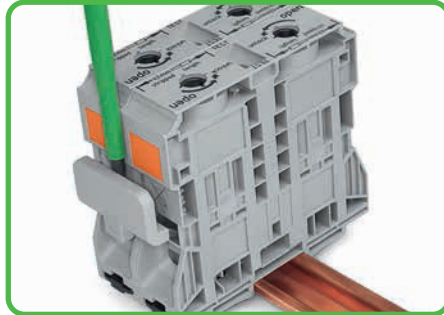
* For aluminum conductors, see notes in Section 14.

- Description and Handling -

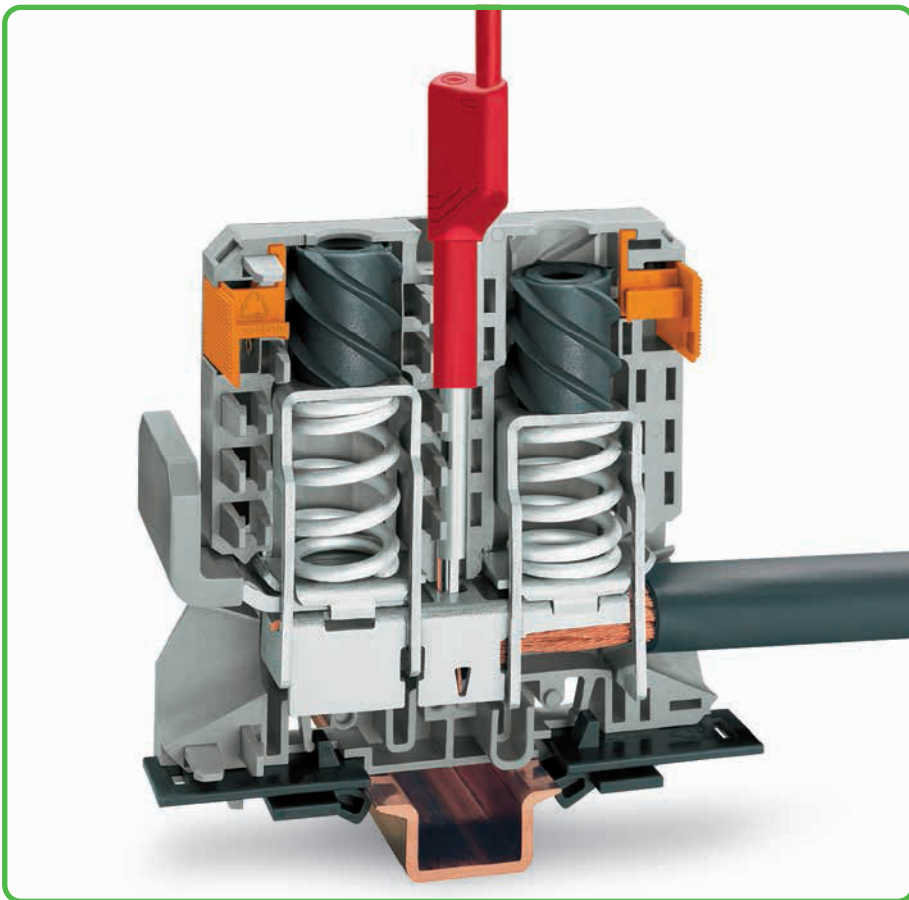
Commoning



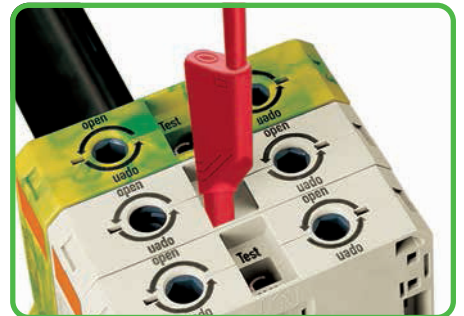
Commoning with adjacent jumper: Inserting the jumper above the conductor entry hole - prior to conductor termination. The nominal cross section remains unchanged.



Removing jumper via operating tool.

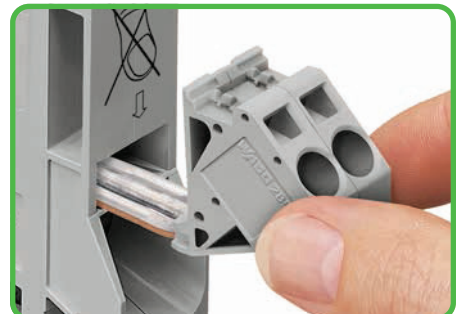


Testing



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

Voltage tap

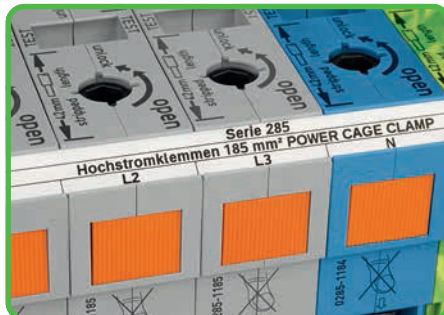


Reliably and easily tap directly onto the power supply. Insert the unwired tap before opening the pressure spring.

Marking



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm² high-current terminal blocks.



Besides WMB markers, marking strips can also be directly accommodated on the 185 mm² (350 MCM) terminal block.





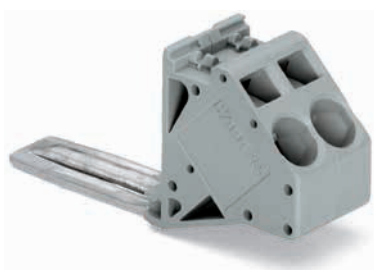
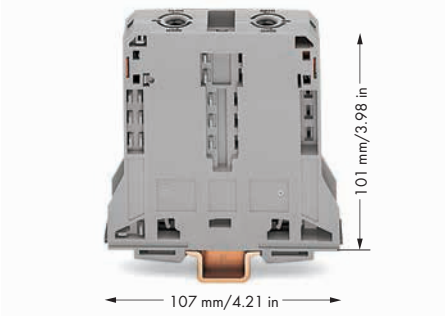
fine-stranded, with ferrule (gastight crimped)

High-Current Through/Ground Conductor and Ex Terminal Blocks

95 mm² 285 Series

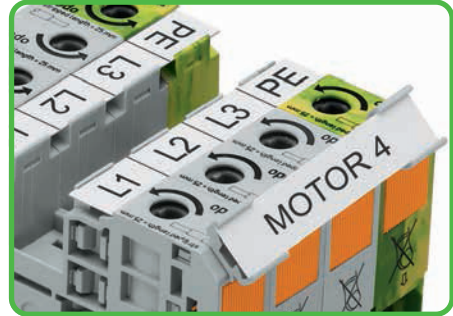


| | | |
|---|---|--|
| 25 - 95 mm² 1000 V/8 kV/3 ② I _N 232 A Terminal block width 25 mm / 0.984 in  35 mm / 1.38 in ③ | AWG 4 - 4/0 600 V, 200 A ② 600 V, 210 A ③ | 0.2 - 10 mm² ① AWG 24 - 8 1000 V/8 kV/3 ② I _N 57 A Module width 20 mm / 0.787 in  12 - 13 mm / 0.49 in ③ |
|---|---|--|

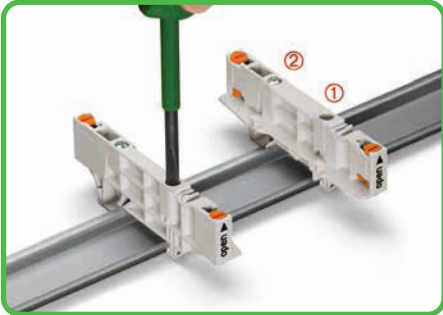


- ① Max. connector size: 16 mm²
- ② 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see Section 14)
- ③ Strip length, see packaging or instructions.
- ④ Suitable for Ex e II applications
25 - 95 mm²/AWG 4 - 4/0
880 V, 211 A
1 jumper 211 A
2 - 4 jumpers 175 A
35 - 70 mm²/AWG 2 - 2/0
for ground conductor terminal blocks
(see Section 14)

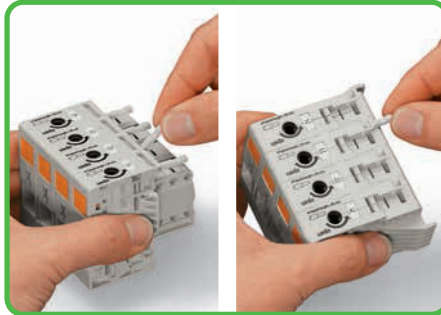
| Item No. | Pack. Unit | Item No. | Pack. Unit |
|--|-------------------|---|-------------------|
| 2-conductor through terminal block, to be used exclusively on DIN 35 x 15 rail | | Voltage tap, for 95 mm ² high-current terminal blocks | |
| ● gray | 285-195 5 | ● gray | 285-407 5 |
| ● blue | 285-194 5 | | |
| ● light gray ④ | 285-995 5 | | |
| 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 ④ | 285-197/999-950 5 | | |
| Item-Specific Accessories | | Item-Specific Accessories | |
| Adjacent jumper, insulated, I _N 232 A for 1 jumper, I _N 130 A for 2 - 4 jumpers gray | | Protective warning marker, with high-voltage symbol, black, for 5 terminal blocks yellow | |
| | 285-495 25 | | 284-415 50 (2x25) |
| Protective warning marker, with high-voltage symbol, black yellow | | WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm plain | |
| | 285-170 50 (2x25) | | 793-501 5 |
| Finger guard, touchproof cover protects unused conductor entries and jumper slots yellow | | WMB Multi marking system, 10 strips with 10 markers per card, stretchable 5 - 5.2 mm plain | |
| | 285-169 25 | | 793-5501 5 |
| Allen wrench with partially insulated shaft | | | |
| | 285-172 1 | | |
| Three-phase set, with 95mm ² high-current terminal blocks | | | |
| | 285-199 1 | | |
| 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 | | |
| WMB Multi marking system, 10 strips with 10 markers per card, for terminal widths 5 - 17.5 mm plain | | | |
| | 793-501 5 | | |
| Marker carrier, for POWER CAGE CLAMP 35/50/95 mm ² , 10.4 mm wide gray | | | |
| | 285-442 25 | | |



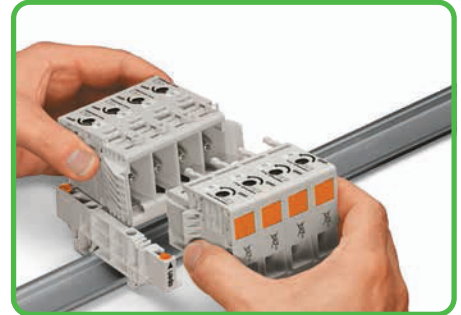
Adapter for marking strips or 2 x WMB



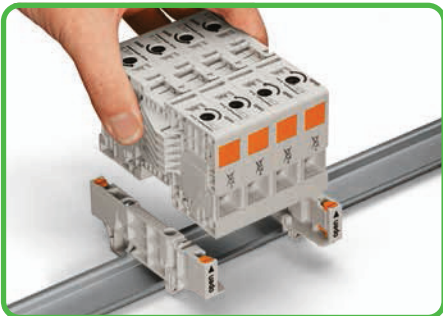
Position the mounting adapter and secure it using locking screw ①.
Screw down locking device ② to the stop.



Coding male and female connectors:
Coding pins removed from the female connector can be used to code the male connector.



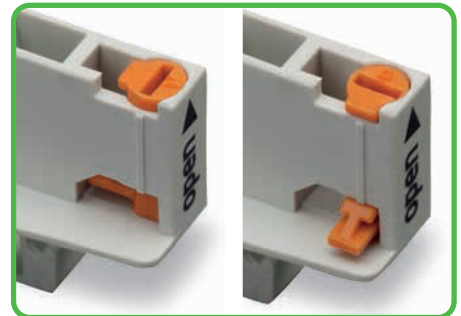
Connecting:
Secure the male connector to the mounting adapters.
Tilt the male connector to plug the female connector.



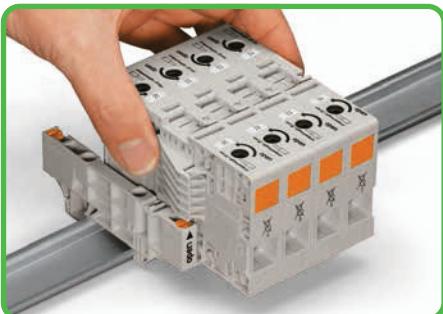
Mounting a male and female connector assembly:
Fit the assembly between the mounting adapters.



Fixing the assembly:
Turn the latch on the mounting adapters from the **open** to the **closed** position using an operating tool.



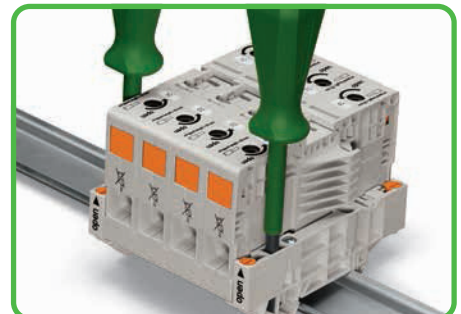
Latch in **open** position (left)
Latch in **closed** position (right)



Removing the assembly:
Turn the mounting adapter latches to the **open** position.
Lift the assembly between the mounting adapters and remove it.



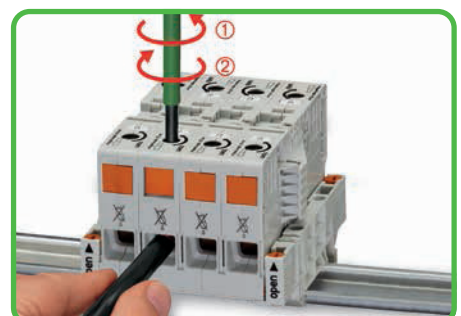
Removing the assembly:
Insert two operating tools into the separator slots between male and female connectors and unlatch the assembly.



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



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



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

