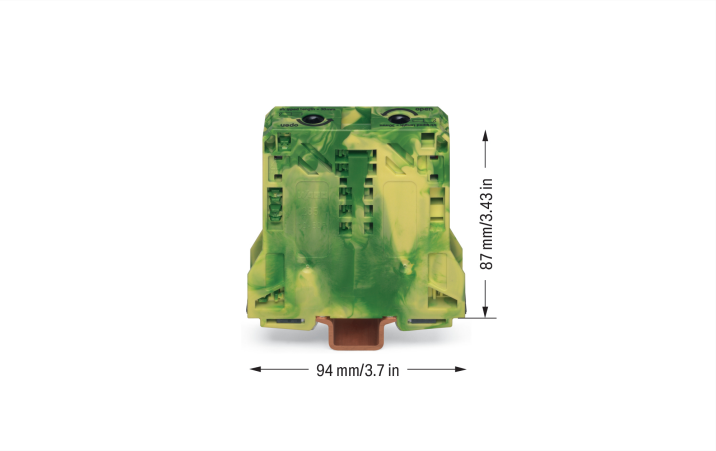
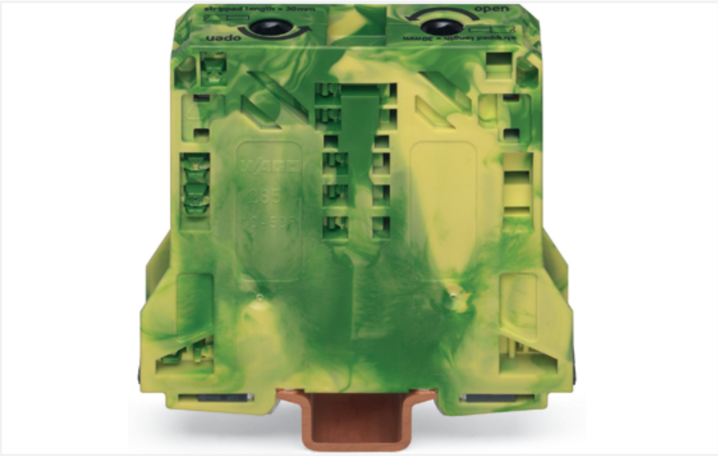
Data Sheet | Item Number: 285-157

2-conductor ground terminal block; 50 mm²; lateral marker slots; only for DIN 35 x 15 rail; 2.3 mm thick; copper; POWER CAGE CLAMP; 50,00 mm²; green-yellow

https://www.wago.com/285-157





Color: green-yellow

High-current terminal block, 285 Series, power cage clamp

Quick and easy connections are guaranteed with this ground terminal block (item number 285-157). Strip lengths must be 32 mm when connecting conductors to this ground terminal block. This product features conductor terminals and utilizes POWER CAGE CLAMP. The POWER CAGE CLAMP is a powerful, maintenance-free, and universal way to connect large conductor cross-sections. It's also suitable for all conductor types. The clamping point can be locked open and you do not need to use a torque wrench or prepare the conductor in any way, e.g., by crimping the ferrule. This ground terminal block is suitable for conductor cross sections ranging from 10 mm² to 50 mm².

Electrical data

General information

Wiring direction	Side-entry wiring

Connection Data

Clamping units	2
Total number of potentials	1
Number of levels	1
Number of jumper slots	2

Connection 1

Connection technology	POWER CAGE CLAMP
Actuation type	T-wrench; 8 mm
Connectable conductor materials	Copper
Nominal cross-section	50 mm²
Solid conductor	10 … 50 mm² / 8 … 1/0 AWG
Stranded conductor	10 … 50 mm² / 8 … 1/0 AWG
Fine-stranded conductor	10 … 70 mm² / 8 … 2/0 AWG
Fine-stranded conductor; with insulated ferrule	10 … 50 mm² / 8 … 1/0 AWG
Fine-stranded conductor; with uninsulated ferrule	10 … 50 mm² / 8 … 1/0 AWG
Strip length	32 mm / 1.26 inches
Wiring direction	Side-entry wiring

Continued on next page

Physical data

Width	20 mm / 0.787 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	87 mm / 3.425 inches

Mechanical data

Mounting type	DIN-35 x 15 rail; 2.3 mm thick; copper
Mounting (note)	only suitable for DIN 35 x 15 rail
Marking level	Side marking

Material data

Note (material data)	Information on material specifications can be found here
Color	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	1.756 MJ
Weight	185.2 g

Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes

 Continued on next page

Environmental Testing

Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
PU (SPU)	5 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454507435
Customs tariff number	85369010000

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 10.0	EC000901
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7707
CSA CSA Group	C22.2	1151144
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-105562
UL Underwriters Laboratories Inc.	UL 1059	20190731-E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004420.000
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 285-157

Documentation

Bid Text

285-157	19.02.2019	xml 3.13 KB
285-157	04.01.2018	doc 23.50 KB

CAD/CAE-Data

CAD data

2D/3D Models 285-157

CAE data

EPLAN Data Portal 285-157

WSCAD Universe 285-157

ZUKEN Portal 285-157

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cover

1.1.1.1 Cover

Item No.: 285-441
Finger guard; touchproof cover protects unused conductor entries and jumper slots; for 50 mm² high-current tbs; yellow

1.1.2 Current and voltage tap

1.1.2.1 Current and voltage tap

Item No.: 855-501/150-000
Current and voltage tap up to 50 mm²; Primary rated current: 150 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; fused

 Continued on next page

1.1.3 DIN-rail

1.1.3.1 Mounting accessories

Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

1.1.4 Ferrule

1.1.4.1 Ferrule

Item No.: 216-3427
Ferrule; Sleeve for 25 mm² / AWG 4; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92

Item No.: 216-3112
Ferrule; Sleeve for 35 mm² / AWG 2; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92

Item No.: 216-424
Ferrule; Sleeve for 35 mm² / AWG 2; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-3113
Ferrule; Sleeve for 50 mm² / AWG 1; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92

Item No.: 216-425
Ferrule; Sleeve for 50 mm² / AWG 1; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92

1.1.5 Installation

1.1.5.1 Mounting accessories

Item No.: 285-448
Fixing element; for 50 mm² high-current terminal blocks; orange

Item No.: 249-197
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.6 Jumper

1.1.6.1 Jumper

Item No.: 285-450
Jumper; insulated; gray

1.1.7 Marking

1.1.7.1 Group marker carrier

Item No.: 249-105
Group marker carrier; gray

 Continued on next page

1.1.7.2 Marker

Item No.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 793-5501/000-014
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

Item No.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 793-5501/000-023
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 793-5501/000-017
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 793-5501/000-012
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 793-5501/000-024
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 2009-115/000-006
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-115/000-007
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-115/000-023
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-115/000-017
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-115/000-005
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-115/000-024
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-115/000-002
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.1.7.3 Marker carrier

Item No.: 285-442
Adaptor; gray

1.1.8 Power tap

1.1.8.1 Power tap

Item No.: 285-447
Power tap; for 50 mm² high-current tbs; Module width 16 mm; gray

 Continued on next page

1.1.9 Protective warning marker

1.1.9.1 Cover

Item No.: 285-440
Protective warning marker; with high-voltage symbol, black; yellow

Item No.: 285-449
Protective warning marker; yellow

1.1.10 Tool

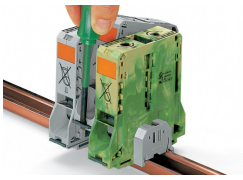
1.1.10.1 Operating tool

Item No.: 285-172
Allen wrench; with a partially insulated shaft; green

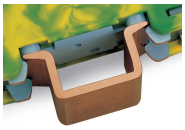
Item No.: 285-173
Allen wrench; with a partially insulated shaft; with anti-rotation protection; green

Installation Notes

Installation



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



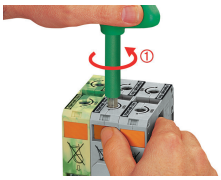
Grounding foot:
Ground conductor terminal blocks (limited to max. 120 mm²/250 kcmil per EN 60947-7-2) must be snapped onto a 2.3 mm thick copper DIN-rail.

Conductor termination

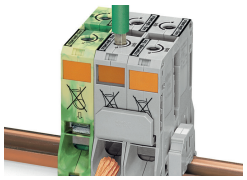
For the optimal clamping force:

- Bend conductor
- Cut conductor to length (conductor end must be straight)
- Strip conductor

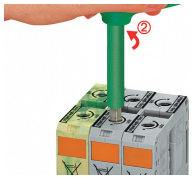
Always observe the on-unit printed strip length guide!



Conductor termination – step 1:
Rotate the T-wrench counter-clockwise to the stop . Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



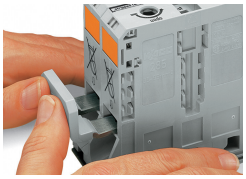
Conductor termination – step 2:
Insert a stripped conductor into the clamping unit until it hits the backstop. Hold in this position.



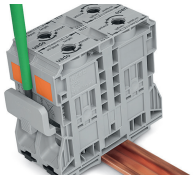
Conductor termination – step 3:
A short counter-clockwise rotation releases the tab. When unlocked, the T-wrench rotates clockwise, securely clamping the conductor.

 Continued on next page

Commoning

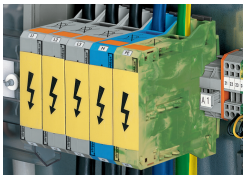


Commoning with an adjacent jumper: insert the jumper above the conductor entry hole – prior to conductor termination. The nominal cross-section remains unchanged.

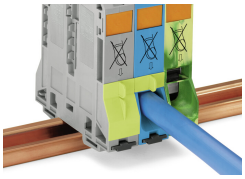


Removing jumper via operating tool.

Cover

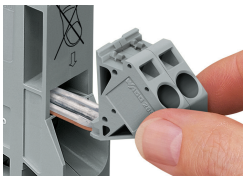


Protective warning marker may indicate: Notice: Power is still on even after switching off the main switch!

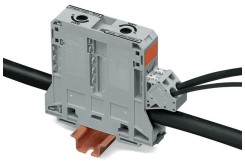


Yellow, detachable finger guards provide touch-proof safety by shielding jumper contact slots and/or unused conductor entries.

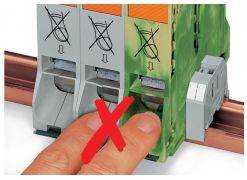
Power tap



Easily and consistently tap directly into the power supply. Insert the unwired tap before opening the clamping unit.

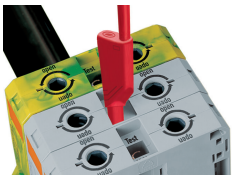


Security

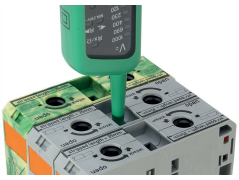


Risk of Injury!
Do not insert fingers in the conductor entry!

Testing



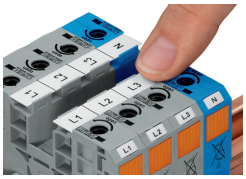
Testing via touch-proof 4 mm Ø test plugs (not available from WAGO, but offered by industry suppliers such as, Multi-Contact Deutschland GmbH).



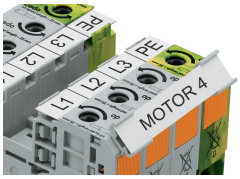
Testing
Voltage measurements can be performed, e. g., using a 2-pole voltage tester (Item No. 206-707).

 Continued on next page

Marking



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



Marker carrier (Item No. 285-442) for marking strips (Item No. 2009-110) or 2 WMB markers for 285-13x, 285-15x and 285-19x Terminal Blocks