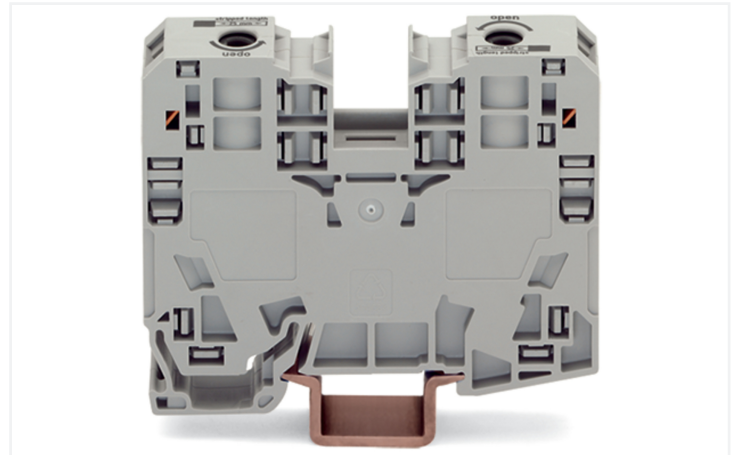
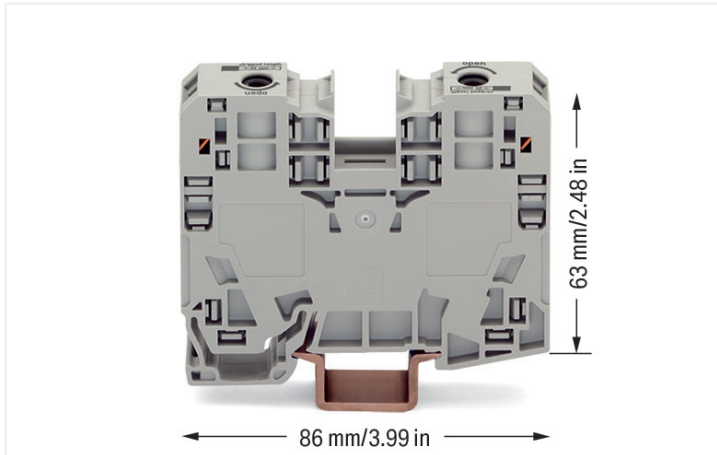


## Data Sheet | Item Number: 285-135

2-conductor through terminal block; 35 mm<sup>2</sup>; lateral marker slots; only for DIN 35 x 15 rail; POWER CAGE CLAMP; 35,00 mm<sup>2</sup>; gray

<https://www.wago.com/285-135>



Color: ■ gray

High-current terminal block, 285 Series, gray

This through terminal block (item number 285-135) is designed for quick and easy connections. Conductors can only be connected to this through terminal block if their strip length is 25 mm. Featuring conductor terminals along with POWER CAGE CLAMP, this connector is highly versatile. 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. Depending on the type of conductor, this through terminal block is ideal for conductor cross sections ranging from 6 mm<sup>2</sup> to 35 mm<sup>2</sup>.

### Electrical data

Ratings per	IEC/EN 60947-7-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	1000 V	-	-
Rated impulse withstand voltage	8 kV	-	-
Rated current	125 A	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	115 A	115 A	-

Approvals per	CSA 22.2 No 158		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	115 A	-	-

Power Loss	
Power loss, per pole (potential)	4.0625 W
Rated current $I_N$ for power loss specification	125 A
Resistance value for specified, current-dependent power loss	0.00026 $\Omega$

### 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	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	35 mm <sup>2</sup>
Solid conductor	6 ... 35 mm <sup>2</sup> / 8 ... 2 AWG
Stranded conductor	6 ... 35 mm <sup>2</sup> / 8 ... 2 AWG
Fine-stranded conductor	6 ... 35 mm <sup>2</sup> / 8 ... 2 AWG
Fine-stranded conductor; with insulated ferrule	6 ... 35 mm <sup>2</sup> / 8 ... 2 AWG
Fine-stranded conductor; with uninsulated ferrule	6 ... 35 mm <sup>2</sup> / 8 ... 2 AWG
Strip length	25 mm / 0.98 inches
Wiring direction	Side-entry wiring

## Physical data

Width	16 mm / 0.63 inches
Height	86 mm / 3.386 inches
Depth from upper-edge of DIN-rail	63 mm / 2.48 inches

## Mechanical data

Mounting type	DIN-35 x 15 rail
Mounting (note)	only suitable for DIN 35 x 15 rail
Marking level	Side marking

## Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	1.258 MJ
Weight	79.3 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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 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

### Environmental Testing

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	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
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
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)	15 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454507381
Customs tariff number	85369010000

### Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 10.0	EC000897
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	E45172

Declarations of conformity and manufacturer's declarations



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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	24-0152298-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2
LR Lloyds Register	EN 60947	LR23325966TA
PRS Polski Rejestr Statków	-	TE/1094/880590/23

Downloads





Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 285-135	↓

Documentation

Bid Text			
285-135	19.02.2019	xml 3.23 KB	↓
285-135	04.01.2018	doc 23.50 KB	↓

## CAD/CAE-Data

CAD data	CAE data
2D/3D Models 285-135 	EPLAN Data Portal 285-135 
	WSCAD Universe 285-135 
	ZUKEN Portal 285-135 

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Cover

##### 1.1.1.1 Cover



**Item No.: 285-421**

Finger guard; touchproof cover protects unused conductor entries; for 35 mm<sup>2</sup> high-current tbs; yellow

#### 1.1.2 DIN-rail

##### 1.1.2.1 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



**Item No.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored



**Item No.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



**Item No.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



**Item No.: 210-114**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-118**

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

#### 1.1.3 Ferrule

##### 1.1.3.1 Ferrule



**Item No.: 216-413**

Ferrule; Sleeve for 25 mm<sup>2</sup> / AWG 4; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-3464**

Ferrule; Sleeve for 35 mm<sup>2</sup> / AWG 2; insulated; electro-tin plated; electrolytic copper; red



**Item No.: 216-3414**

Ferrule; Sleeve for 35 mm<sup>2</sup> / AWG 2; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-414**

Ferrule; Sleeve for 35 mm<sup>2</sup> / AWG 2; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

1.1.4 Installation

1.1.4.1 Mounting accessories



Item No.: 249-117

Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item No.: 249-197

Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.5 Jumper

1.1.5.1 Jumper



Item No.: 285-435

Jumper; insulated; gray



Item No.: 285-430

Step-down jumper; from 285 (35mm<sup>2</sup>) to 2016/2010 series; insulated; gray

1.1.6 Marking

1.1.6.1 Group marker carrier



Item No.: 249-105

Group marker carrier; gray

1.1.6.2 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

### 1.1.6.2 Marker



**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

### 1.1.6.3 Marker carrier



**Item No.: 285-442**

Adaptor; gray

### 1.1.6.4 Marking strip



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

### 1.1.7 Power tap

#### 1.1.7.1 Power tap



**Item No.: 285-427**

Power tap; for 35 mm<sup>2</sup> high-current tbs; Module width 8 mm; 6,00 mm<sup>2</sup>; gray



**Item No.: 283-407**

Power tap; with 500 mm cable; for 16 mm<sup>2</sup> (283/783 Series) and 35 mm<sup>2</sup>; gray

### 1.1.8 Protective warning marker

#### 1.1.8.1 Cover



**Item No.: 285-420**

Protective warning marker; with high-voltage symbol, black; yellow

### 1.1.9 Test and measurement

#### 1.1.9.1 Testing accessories



**Item No.: 283-404**

Test plug adapter; 11.6 mm wide; for 4 mm Ø test plugs; gray

### 1.1.10 Tool

#### 1.1.10.1 Operating tool



**Item No.: 210-721**

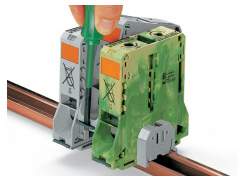
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

## Installation Notes

### Installation

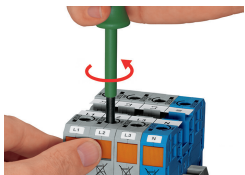


Snapping a terminal block onto DIN-rail (to the left or to the right).

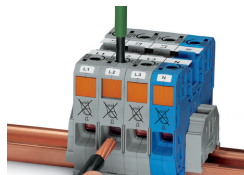


Removing a terminal block from the assembly (to the left or to the right).

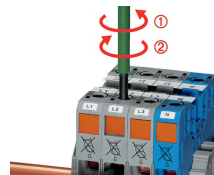
## Conductor termination



**Conductor termination – step 1:**  
Rotate the operating tool (5.5 mm blade width) counter-clockwise. 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 closes the clamp, securing the conductor. When unlocked, allow the operating tool to rotate clockwise to securely terminate the conductor.



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

## Commoning

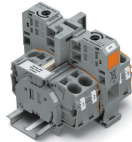
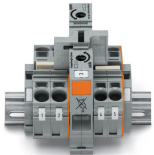


Commoning adjacent terminal blocks using a centrally positioned push-in jumper.



Slide the marking strip laterally to remove the jumper.

Commoning



Commoning 35 mm<sup>2</sup> (2 AWG) POWER CAGE CLAMP Terminal Blocks with 10/16 mm<sup>2</sup> (8/6 AWG) 2010 and 2016 Series TOPJOB® S Terminal Blocks using step-down jumpers (not valid for Item No. 2016-76xx and Item No. 2016-77xx).

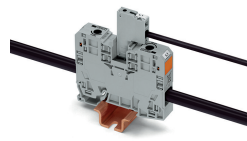
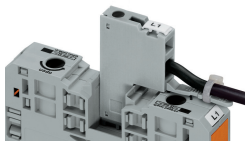
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

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. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

**The following should be noted:**

The total current of the outgoing circuits does not exceed the nominal current of the step-down jumper.

Power tap

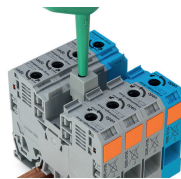
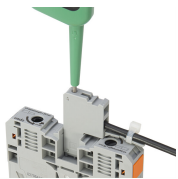


The power tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate.

Power tap inserted in a jumper contact slot

Always push voltage tap (Item No. 283-407) down into the terminal block until fully inserted!

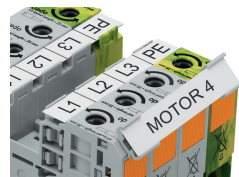
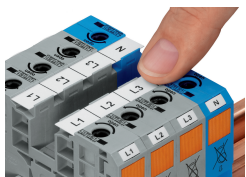
Testing



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

Testing with test plug adapter (Item No. 283-404).

Marking



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm<sup>2</sup> 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

Subject to changes. Please also observe the further product documentation!

---

Current addresses can be found at: [www.wago.com](http://www.wago.com)