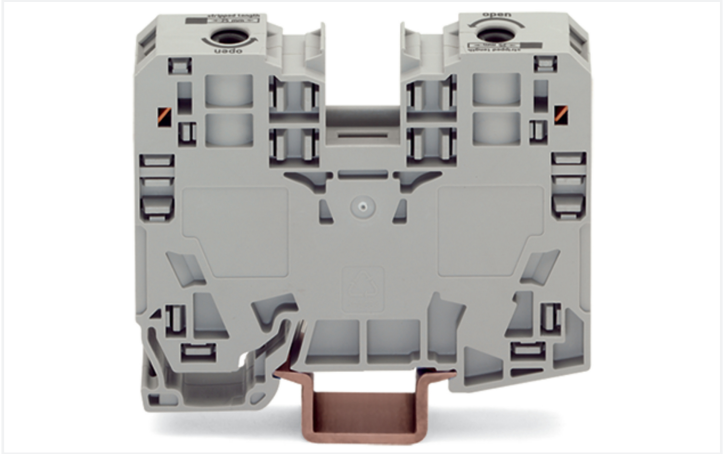
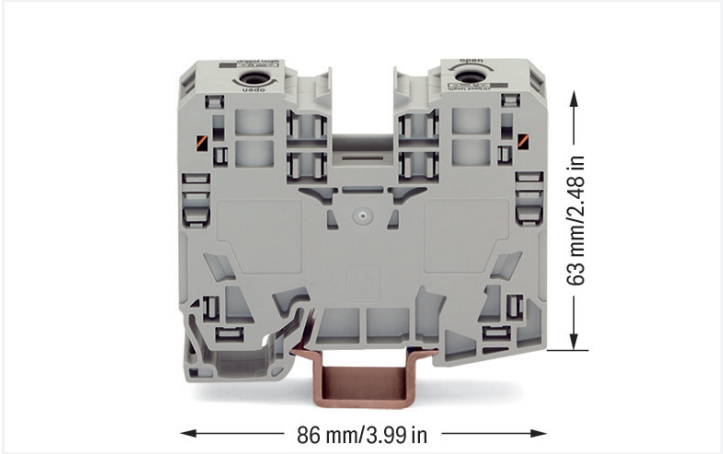




Color: ■ gray

Through terminal block, 285 Series, power cage clamp

Quick and easy connections are guaranteed with this through terminal block (item number 285-135). Strip lengths must be 25 mm when connecting conductors to this through terminal block. This product features conductor terminals and utilizes POWER CAGE CLAMP. The POWER CAGE CLAMP is perfect for connecting large conductor cross-sections. This universal connector is both reliable and maintenance-free. What's more, you can use it to connect all types of conductors and the clamping point can be locked open, making it easier to use. You do not need to use a torque wrench or prepare the conductor. For example, crimping ferrules is not necessary. Depending on the type of conductor, this through terminal block is designed for conductor cross sections ranging from 6 mm² to 35 mm². It features one level and two clamping points for connecting a single potential. The gray housing is made of polyamide (PA66) for insulation. These high-current terminal blocks are mounted using DIN-rails 35 x 15..

Electrical data				
Ratings per		IEC/EN 60947-7-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		1000 V	-	-
Rated surge 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 specified power loss		125 A		
Resistance value for specified, current-dependent power loss		0.00026 Ω		

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 mm²	
Solid conductor	6 ... 35 mm² / 8 ... 2 AWG	
Stranded conductor	6 ... 35 mm² / 8 ... 2 AWG	
Fine-stranded conductor	6 ... 35 mm² / 8 ... 2 AWG	
Fine-stranded conductor; with insulated ferrule	6 ... 35 mm² / 8 ... 2 AWG	



Connection 1	
Fine-stranded conductor; with uninsulated ferrule	6 ... 35 mm² / 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-rail 35 x 15
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	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	1.257 MJ
Weight	79.3 g

Environmental requirements																												
Processing temperature	-35 ... +85 °C	<table><tr><th colspan="2">Environmental Testing (Environmental Conditions)</th></tr><tr><td>Test specification Railway applications – Rolling stock – Electronic equipment</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Installation location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Function test with noise-like vibration</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min. 5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes X, Y and Z axes X, Y and Z axes</td></tr><tr><td>Monitoring for contact faults/interruptions</td><td>Passed</td></tr><tr><td>Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Simulated service life test through increased levels of noise-like vibration</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Extended test scope: Monitoring for contact faults/interruptions</td><td>Passed Passed</td></tr></table>	Environmental Testing (Environmental Conditions)		Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06	Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests	DIN EN 61373 (VDE 0115-0106):2011-04	Spectrum/Installation location	Service life test, Category 1, Class A/B	Function test with noise-like vibration	Test passed according to Section 8 of the standard	Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 Hz	Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)	Test duration per axis	10 min. 5 h	Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes	Monitoring for contact faults/interruptions	Passed	Voltage drop measurement before and after each axis	Passed	Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard	Extended test scope: Monitoring for contact faults/interruptions	Passed Passed
Environmental Testing (Environmental Conditions)																												
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Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes																											
Monitoring for contact faults/interruptions	Passed																											
Voltage drop measurement before and after each axis	Passed																											
Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard																											
Extended test scope: Monitoring for contact faults/interruptions	Passed Passed																											
Continuous operating temperature	-60 ... +105 °C																											



Environmental Testing (Environmental Conditions)	
Extended test scope: Voltage drop measurement before and after each axis	Passed Passed
Shock test	Test passed according to Section 10 of the standard
Shock form	Half sine
Shock duration	30 ms
Number of shocks per axis	3 pos. und 3 neg.
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 8.0	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 DEKRA Certification B.V.	C22.2 No. 158	154112
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 Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004420.000
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

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
2D/3D Models 285-135



CAE data
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 mm²
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 mm² / AWG 4; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



Item No.: 216-414
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

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 (35mm²) 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



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 mm² high-current tbs;
Module width 8 mm; 6,00 mm²; gray



Item No.: 283-407
Power tap; with 500 mm cable; for 16 mm²
(283/783 Series) and 35 mm²; gray

1.1.8 Protective warning marker

1.1.8.1 Cover



Item No.: 285-420
Protective warning marker; with high-vol-
tage 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

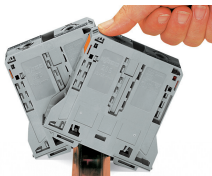
1.1.10.1 Operating tool



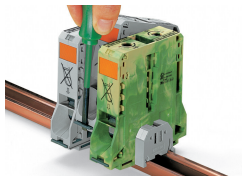
Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a
partially insulated shaft; multicoloured

Installation Notes

Installation

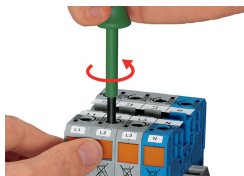


Snapping a terminal block onto DIN-rail (to the left or to the right).

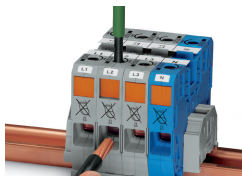


Removing a terminal block from the assembly (to the left or to the right).

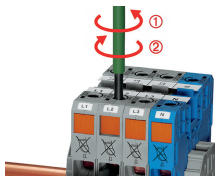
Conductor termination



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.

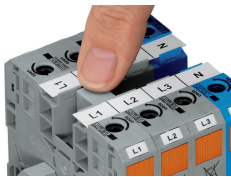


Conductor termination – step 3:
A short counter-clockwise rotation closes the clamp, securing the conductor. When unlocked, allow the operating tool to rotate clockwise to securely terminate the conductor.

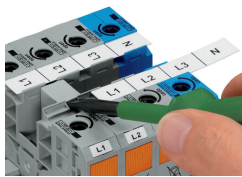


Side-entry wiring means that even larger conductors, which have limited flexibility, can be easily connected.

Commoning

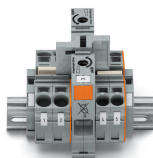


Commoning adjacent terminal blocks using a centrally positioned push-in jumper.

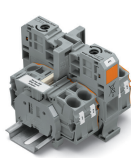


Slide the marking strip laterally to remove the jumper.

Commoning



Commoning 35 mm² (2 AWG) POWER CAGE CLAMP Terminal Blocks with 10/16 mm² (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).

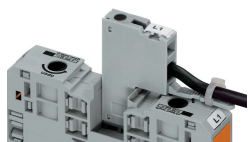


Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

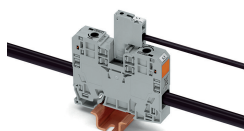
Step-down jumpers are simply pushed down for full insertion, similar to adjacent jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using adjacent jumpers.

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.

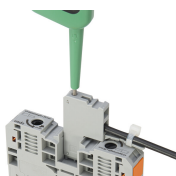


Power tap inserted in a jumper contact slot

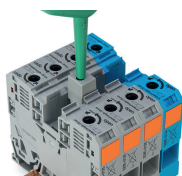


Always push voltage tap (Item No. 283-407) down into the terminal block until fully inserted!

Testing

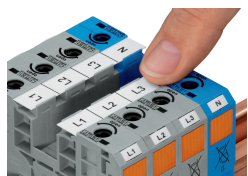


Testing
Voltage measurements can be performed, e.g., using a 2-pole voltage tester (Item No. 206-707).

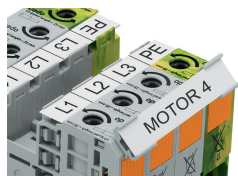


Testing with test plug adapter (Item No. 283-404).

Marking



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 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