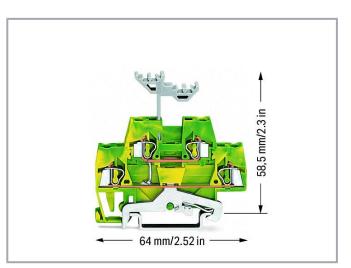
Double-deck terminal block; 4-conductor ground terminal block; 2.5 mm²; internal commoning; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; green-yellow



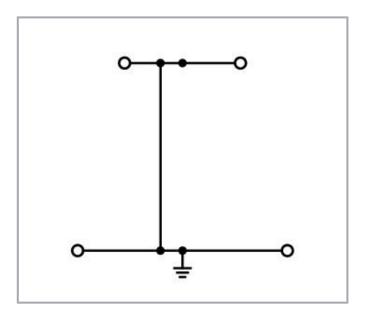
www.wago.com/280-517





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





# Data Electrical data

# Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-2	
Connection data		
Connection points	4	
Total number of potentials	1	
Number of levels	2	

### **Connection 1**

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Connectable conductor materials (note)	Terminating Aluminum Conductors WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 is used for termination.
	"Alu-Plus" Contact Paste Advantages:

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- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned with a blade and then immediately be inserted into the clamping units filled with "Alu-Plus" Contact Paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::

 $2.5 \text{ mm}^2 = 16 \text{ A}$  $4 \text{ mm}^2 = 22 \text{ A}$ 

Solid conductor	0.08 2.5 mm² / 28 14 AWG
Fine-stranded conductor	0.08 2.5 mm² / 28 12 AWG
Strip length	8 9 mm / 0.31 0.35 inches
Wiring direction	Front-entry wiring

## Physical data

Width	5 mm / 0.197 inches
Height	64 mm / 2.52 inches
Depth from upper-edge of DIN-rail	58.5 mm / 2.303 inches

#### **Mechanical Data**

Design	horizontal type
Mounting type	DIN-35 rail
Marking level	Center marking

#### **Material Data**

Note (material data)

Information on material specifications can be found here

Color green-yellow

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Material group	1
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.17 MJ
Weight	14.3 g

# **Environmental requirements**

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

## Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 8.0	EC000901
ETIM 7.0	EC000901
PU (SPU)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454194338
Customs tariff number	85369010000

# **Environmental Product Compliance**

CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
	7(a)
	7(c)-l
	7(c)-II
SCIP notification number (Austria)	27b75e34-439d-4e0f-8da4-60927b710b1e
SCIP notification number (Belgium)	63f5f6a1-69a0-4ffb-b6b0-fb0fbfa822ce
SCIP notification number (Bulgaria)	9f4742b4-b5f0-4b82-a17c-ad730e161e2e
SCIP notification number (Czech Republic)	6b038242-27cb-4899-8020-b1e8d09d0253
SCIP notification number (Denmark)	9cbf2165-9b34-4a07-bb1a-6d3550ab104a
SCIP notification number (Finland)	6e1e45ea-0f10-4536-b8ec-2e0fa512f5d7
SCIP notification number (France)	1f00b4de-62b7-479b-b9d1-d6e85179b9d4

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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SCIP notification number (Germany)	e2910799-fed3-4835-b43a-e61c4d7e61f8
SCIP notification number (Hungary)	932fcdc6-12f8-406e-b2a0-8b782f594b6d
SCIP notification number (Italy)	3971005c-3455-48e2-82bd-c1e70fdd1da0
SCIP notification number (Netherlands)	11b0ce88-e209-45cc-8230-6ab05c80f2f9
SCIP notification number (Poland)	e183fee6-cc67-408c-ae29-c68d3f406bae
SCIP notification number (Romania)	48dd46c9-d4ea-4a23-a401-d28b0f1b8a13
SCIP notification number (Sweden)	ef55b93a-5784-4490-a886-f924550c4848

# Approvals / Certificates

#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
KEMA	CCA DEKRA Certification B.V.	EN 60947	2157201.01
	CSA	C22.2	1536071



DEKRA Certification B.V.

## Declarations of conformity and manufacturer's declarations

Logo Approval	Additional Approval Text	Certificate	
		name	
CE	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
ABS.	ABS American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	BV	EN 60947	07436/F0
	Bureau Veritas S.A.		BV

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**LR** Lloyds Register EN 60947

91/20112 (E9)

THE APPROVAL

## Required accessories

# End plate

End plate



Item no.: 280-341

End and intermediate plate; 2.5 mm thick; orange

www.wago.com/280-341



Item no.: 280-340

End and intermediate plate; 2.5 mm thick; gray

www.wago.com/280-340

#### Optional accessories

## Testing and measuring

Testing accessories

resting accessories

Item no.: 249-141

 $L-type\ test\ plug\ module;\ modular;\ with\ spring-loaded\ contact\ pin;\ Center\ module;\ 1,50\ mm^2;\ gray$ 

www.wago.com/249-141

P

Item no.: 249-142

L-type end module; modular; with rigid contact pin; End module; 1,50 mm<sup>2</sup>; gray

www.wago.com/249-142

## Marking accessories

Marker



Item no.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-115



Item no.: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/793-501



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 www.wago.com/793-5501 type; white

#### Ferrule

Ferrule

Item no.: 216-101

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-101

J.

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	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-104	
l	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-102	
	Item no.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103	
	Item no.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203	
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202	
,	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204	
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201	
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301	
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-302	
nsulation st	op		
Insulation	stop		
***	Item no.: 280-472 Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; black	www.wago.com/280-472	
09909	Item no.: 280-470 Insulation stop; 0.08 - 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st"); 5 pieces/strip; white	www.wago.com/280-470	
00000	Item no.: 280-471 Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray	www.wago.com/280-471	
ГооІ			
Operating	tool		
/	Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured	www.wago.com/210-657	
	<b>Item no.: 210-658</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured	www.wago.com/210-658	

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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## **Jumpers**

Item no.: 210-123 Wire commoning chain; insulated; blue	www.wago.com/210-123
Item no.: 280-402 Jumper; insulated; gray	www.wago.com/280-402
Item no.: 210-103 Wire commoning chain; insulated; black	www.wago.com/210-103
Item no.: 281-421 Vertical jumper; insulated; gray	www.wago.com/281-421
Item no.: 280-492 Jumper; 2-way; insulated; gray	www.wago.com/280-492
Item no.: 280-409 Jumper; insulated; gray	www.wago.com/280-409
Item no.: 280-422 Jumper; insulated; yellow-green	www.wago.com/280-422
Item no.: 280-482 Jumper; 2-way; insulated; gray	www.wago.com/280-482
Item no.: 280-484 Jumper; 4-way; insulated; gray	www.wago.com/280-484
Item no.: 280-490 Jumper; 10-way; insulated; gray	www.wago.com/280-490
Item no.: 280-485 Jumper; 5-way; insulated; gray	www.wago.com/280-485
Item no.: 280-483 Jumper; 3-way; insulated; gray	www.wago.com/280-483
Item no.: 709-110 Wire commoning chain; 2.5 mm²; insulated; black	www.wago.com/709-110
Item no.: 709-112 Wire commoning chain; 2.5 mm²; insulated; black	www.wago.com/709-112
Item no.: 709-111 Wire commoning chain; 2.5 mm²; insulated; black	www.wago.com/709-111
Item no.: 780-454 Staggered jumper; from 1 to 4; insulated; gray	www.wago.com/780-454
	Item no.: 280-402 Jumper; insulated; gray  Item no.: 210-103 Wire commoning chain; insulated; black  Item no.: 281-421 Vertical jumper; insulated; gray  Item no.: 280-492 Jumper; 2-way; insulated; gray  Item no.: 280-499 Jumper; insulated; gray  Item no.: 280-409 Jumper; insulated; gray  Item no.: 280-422 Jumper; insulated; yellow-green  Item no.: 280-482 Jumper; 2-way; insulated; gray  Item no.: 280-484 Jumper; 4-way; insulated; gray  Item no.: 280-490 Jumper; 10-way; insulated; gray  Item no.: 280-485 Jumper; 5-way; insulated; gray  Item no.: 280-483 Jumper; 3-way; insulated; gray  Item no.: 709-110  Wire commoning chain; 2.5 mm²; insulated; black  Item no.: 709-111  Wire commoning chain; 2.5 mm²; insulated; black  Item no.: 709-111  Wire commoning chain; 2.5 mm²; insulated; black

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8	Item no.: 780-452 Staggered jumper; from 1 to 2; insulated; gray	www.wago.com/780-452
	Item no.: 780-453 Staggered jumper; from 1 to 3; insulated; gray	www.wago.com/780-453
	Item no.: 780-457 Staggered jumper; from 1 to 7; insulated; gray	www.wago.com/780-457
T	Item no.: 780-456 Staggered jumper; from 1 to 6; insulated; gray	www.wago.com/780-456
	Item no.: 780-455 Staggered jumper; from 1 to 5; insulated; gray	www.wago.com/780-455
f	Item no.: 780-458 Staggered jumper; from 1 to 8; insulated; gray	www.wago.com/780-458
Mounting		
Cover carrie	er	
	Item no.: 709-168  Cover carrier; Type 2; incl. fixing/retaining screws and knurled nut; suitable for 283 to 285 Series rail-mounted terminal blocks; suitable for 279 to 281 Series double- and triple-deck terminal blocks; suitable for 780 to 785, 775, 776 and 777 Series TOPJOB® rail-mounted terminal blocks; suitable for 280 Series sensor and actuator terminal blocks; suitable for 282 Series disconnect/test terminal blocks for transformer circuits; gray	www.wago.com/709-168
Cover		
	Item no.: 709-154 Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent	www.wago.com/709-154
Mounting a	ccessories	
	Item no.: 209-106  Mounting carrier; for isolated mounting on DIN 35 rails; gray	www.wago.com/209-106
*	Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-116
Carrier rail		
Mounting a	ccessories	
	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	www.wago.com/210-197
	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	www.wago.com/210-198
	Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	www.wago.com/210-504
Subject to cha	anges. Please also observe the further product documentation!	

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Item no.: 210-505

Steel carrier rail;  $35 \times 7.5$  mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

www.wago.com/210-505



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

www.wago.com/210-506



Item no.: 210-508

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

www.wago.com/210-508



Item no.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

www.wago.com/210-113



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

www.wago.com/210-118



Item no.: 210-112

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; www.wago.com/210-112 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

www.wago.com/210-114



Item no.: 210-115

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; www.wago.com/210-115 silver-colored



Item no.: 210-196

 $Aluminum\ carrier\ rail; 35\ x\ 8.2\ mm; 1.6\ mm\ thick; 2\ m\ long; unslotted; similar\ to\ EN\ 60715; silver-colored$ 

www.wago.com/210-196

#### Push-in type wire jumper

Jumper

( )

Item no.: 249-123

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black

www.wago.com/249-123



Item no.: 249-126

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black

www.wago.com/249-126



Item no.: 249-127

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 250 mm long; black

www.wago.com/249-127



Item no.: 249-125

Push-in type wire jumper; insulated; 60 mm long; black

www.wago.com/249-125

#### Protective warning marker

Cover



Item no.: 280-415

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

www.wago.com/280-415

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Additional Information			
Technical Section		pdf	Download
Technical explanations		2.2 MB	

## CAD/CAE-Data

CAE data

2D/3D Models 280-517	URL	Download
CAD data		
ZUKEN Portal 280-517	URL	Download
WSCAD Universe 280-517	URL	Download
EPLAN Data Portal 280-517	URL	Download

# **Environmental Product Compliance**

Compliance Search

Environmental Product Compliance 280-517

Double-deck terminal block; 4-conductor ground terminal block; 2.5 mm²; internal commoning; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; green-yellow

## **Installation Notes**

Installation

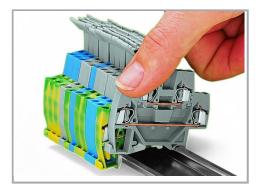
 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

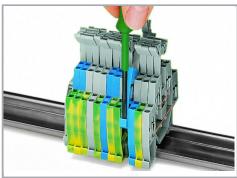
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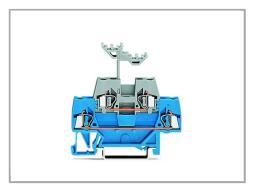






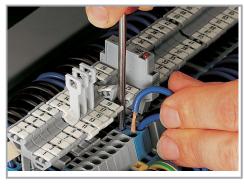
Snapping a terminal block onto the DIN-rail.

Removing a terminal block from the assembly.



Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for easier wiring.

# Conductor termination



 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks.

## Commoning



Commoning using an adjacent jumper.

Push jumpers down until fully inserted!

## Commoning

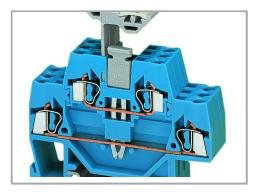
 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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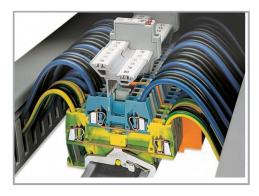




Commoning with a vertical jumper (281-421).

Combining vertical and adjacent jumpers.

Push vertical jumper down until fully inserted!



Example of a mixed assembly with double-deck terminal blocks.

The 280 Series Double-Deck Terminal Blocks are available with decks of same or different color according to their function. This is an additional visual aid during wiring, service or maintenance.

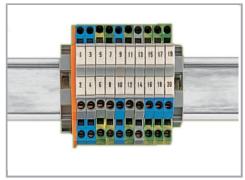
 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

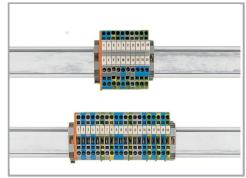
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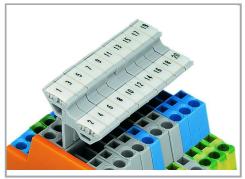




With a terminal block width of just 5 mm, an effective width of just 2.5 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).

Use 50% less rail space with double-deck terminal blocks.

#### Marking



Labeling via WMB Multi Marking System.

# **Product family**

Classic

EPSITRON® CLASSIC POWER: The Robust Power Supply - with Integrated TopBoost (Optional)

Show all products from the family

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

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