

Mini feed-through terminal block - MBK 6/E - 0552024

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 41 A, connection method: Screw connection, number of connections: 2, cross section: 0.5 mm² - 10 mm², AWG: 20 - 8, width: 8.2 mm, color: gray, mounting type: NS 15

Your advantages

- ✓ Separating disks, partition plates, and test sockets complete the range of accessories
- ✓ Clear arrangement thanks to marking of all terminal points
- ✓ Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- ✓ Easy potential distribution thanks to standardized plug-in bridges

RoHS



Key Commercial Data

Packing unit	50 pc
GTIN	 4 017918 002893
GTIN	4017918002893

Technical data

General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	6 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V2
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	1.31 W

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Technical data

General

Maximum load current	57 A (with 10 mm ² conductor cross section)
Nominal current I _N	41 A
Nominal voltage U _N	500 V
Open side panel	Yes
Ambient temperature (operation)	-60 °C ... 85 °C
Ambient temperature (storage/transport)	-25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	7.2 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.5 mm ² / 0.3 kg
	6 mm ² / 1.4 kg
	10 mm ² / 2 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.5 mm ²
Tractive force setpoint	20 N
Conductor cross section tensile test	6 mm ²
Tractive force setpoint	80 N
Conductor cross section tensile test	10 mm ²
Tractive force setpoint	90 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 15
Setpoint	5 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	U ₁ ≤ 3,2 mV U ₂ ≤ 1,5 x U ₁ dT ≤ 45 K
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Short circuit stability result	Test passed

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General

Conductor cross section short circuit testing	6 mm ²
Short-time current	0.72 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	f ₁ = 5 Hz to f ₂ = 250 Hz
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	125 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Static insulating material application in cold	-40 °C

Dimensions

Width	8.2 mm
End cover width	1.5 mm
Length	35 mm
Height NS 15	36 mm

Connection data

Connection	1 level
Connection method	Screw connection
Screw thread	M4
Stripping length	10 mm
Tightening torque, min	1.5 Nm
Tightening torque max	1.8 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	8
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	6 mm ²

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Technical data

Connection data

Min. AWG conductor cross section, flexible	20
Max. AWG conductor cross section, flexible	10
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	6 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	6 mm ²
Cross section with insertion bridge, solid max.	6 mm ²
Cross section with insertion bridge, stranded max.	4 mm ²
2 conductors with same cross section, solid min.	0.5 mm ²
2 conductors with same cross section, solid max.	2.5 mm ²
2 conductors with same cross section, stranded min.	0.5 mm ²
2 conductors with same cross section, stranded max.	2.5 mm ²
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, minimum	0.5 mm ²
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum	2.5 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, minimum	0.5 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, maximum	2.5 mm ²
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	8
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	6 mm ²
Internal cylindrical gage	A5

Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
	IEC/EN 60079-7
Flammability rating according to UL 94	V2

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Mini feed-through terminal block - MBK 6/E - 0552024

Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27141120
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

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CSA / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

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Approvals

Ex Approvals

IECEEx / ATEX / EAC Ex

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
Nominal voltage UN		300 V	
Nominal current IN		50 A	
mm²/AWG/kcmil		26-8	

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	50 A	50 A	5 A
mm²/AWG/kcmil	26-8	26-8	26-8

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	50 A	50 A	5 A
mm²/AWG/kcmil	26-8	26-8	26-8

EAC		EAC-Zulassung
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EAC		RU C- DE.A*30.B.01742
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cULus Recognized	
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Accessories

Accessories

DIN rail

DIN rail, unperforated - NS 15 UNPERF 2000MM - 1401695



DIN rail, unperforated, Standard profile, width: 15 mm, height: 5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 15 PERF 2000MM - 1401682



DIN rail perforated, Standard profile, width: 15 mm, height: 5.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 15 AL PERF 2000MM - 1401763



DIN rail perforated, Standard profile, width: 15 mm, height: 5.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

DIN rail perforated - NS 15 WH PERF 2000MM - 1204096



DIN rail perforated, Standard profile, width: 15 mm, height: 5.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

End block

End clamp - E/MBK - 1401637



End clamp, width: 6.2 mm, color: gray

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Accessories

End clamp - E/MK - 1421633



End clamp, width: 6.2 mm, color: gray

End clamp - E/MK 1 - 1421659



End clamp width: 6 mm, color: gray

End cover

End cover - D-MBK 6/E - 1413049



End cover, length: 35 mm, width: 1.5 mm, height: 30.1 mm, color: gray

Insertion bridge

Insertion bridge - EB 2- 8 - 0202154



Insertion bridge, pitch: 8 mm, number of positions: 2, color: gray

Insertion bridge - EB 3- 8 - 0202141



Insertion bridge, pitch: 8 mm, number of positions: 3, color: gray

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Accessories

Insertion bridge - EB 10- 8 - 0202138



Insertion bridge, pitch: 8 mm, number of positions: 10, color: gray

Insertion bridge - EB 4- 8 - 0202142



Insertion bridge, pitch: 8 mm, number of positions: 4, color: gray

Insertion bridge - EB 1/3/5/7-8 - 3072340



Insertion bridge, pitch: 16.4 mm, length: 24 mm, width: 55.4 mm, number of positions: 4, pin assignment: 1, 3, 5, 7, color: gray

Insertion bridge - EB 1/3/5-8 - 3072341



Insertion bridge, pitch: 16.4 mm, length: 24 mm, width: 39 mm, number of positions: 3, pin assignment: 1,3,5, color: gray

Insulating sleeve

Bridge bar isolator - IS-K 10 - 1303337



Bridge bar isolator, color: gray

Labeled terminal marker

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Accessories

Zack marker strip - ZB 8 CUS - 0825011



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 8 CUS - 0824597



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 7.6 x 10.5 mm, Number of individual labels: 56

Marker for terminal blocks - UCT-TM 8 CUS - 0829616



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 7.6 x 10.5 mm, Number of individual labels: 42

Zack marker strip - ZB 8,LGS:FORTL.ZAHLEN - 1052015



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

Zack marker strip - ZB 8,QR:FORTL.ZAHLEN - 1052028



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

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Accessories

Marker for terminal blocks - ZB 8,LGS:L1-N,PE - 1052413



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

Partition plate

Separating plate - TS-KK 3 - 2770215



Separating plate, length: 14 mm, width: 0.5 mm, height: 16 mm, color: gray

Partition plate - ATP-MBK - 1413227



Partition plate, length: 42.5 mm, width: 2.5 mm, height: 30.5 mm, color: gray

Screw bridge

Jumper - ISSBI 10- 8 - 0301534



Jumper, pitch: 8 mm, number of positions: 10, color: silver

Fixed bridge - FBI 2- 8 - 0200020



Fixed bridge, pitch: 8 mm, number of positions: 2, color: silver

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Accessories

Fixed bridge - FBI 4- 8 - 0200046



Fixed bridge, pitch: 8 mm, number of positions: 4, color: silver

Fixed bridge - FB 10- 8-EX - 3003185



Fixed bridge, pitch: 8 mm, number of positions: 10, color: silver

Fixed bridge - FB 2- 8-EX - 3029224



Fixed bridge, pitch: 8 mm, number of positions: 2, color: silver

Fixed bridge - FBI 10- 8 - 0203263



Fixed bridge, pitch: 8 mm, number of positions: 10, color: silver

Fixed bridge - FB 10- 8 - 0202170



Fixed bridge, pitch: 8 mm, number of positions: 10, color: silver

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Accessories

Fixed bridge - FBI 3- 8 - 0200059



Fixed bridge, pitch: 8 mm, number of positions: 3, color: silver

Screwdriver tools

Screwdriver - SZS 1,0X4,0 VDE - 1205066



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

Short-circuit connector

Short-circuit connector - KSS 8 - 0311540



Short-circuit connector, pitch: 8 mm, number of positions: 2, color: black

Switching jumper

Switching jumper - SBRN 2-9 - 1415238



Switching bridge, 2-pos.

Switching jumper - SB 2- 8/13 - 0202235



Switching jumper, pitch: 13 mm, number of positions: 2, color: silver

Terminal marking

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Accessories

Zack marker strip - ZB 8:UNBEDRUCKT - 1052002



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 8 - 0818072



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 7.6 x 10.5 mm, Number of individual labels: 56

Marker for terminal blocks - UCT-TM 8 - 0828740



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 7.6 x 10.5 mm, Number of individual labels: 42

Test socket

Female test connector - PSBJ 4/15/6 FARBLOS - 0303419



Female test connector, color: transparent

Female test connector - PSBJ 4/15/6 WH - 0303312



Female test connector, color: white

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Accessories

Female test connector - PSBJ 4/15/6 RD - 0303325



Female test connector, color: red

Female test connector - PSBJ 4/15/6 BU - 0303354



Female test connector, color: blue

Female test connector - PSBJ 4/15/6 YE - 0303367



Female test connector, color: yellow

Female test connector - PSBJ 4/15/6 GN - 0303370



Female test connector, color: green

Female test connector - PSBJ 4/15/6 VT - 0303383



Female test connector, color: violet

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Accessories

Female test connector - PSBJ 4/15/6 GY - 0303396



Female test connector, color: gray

Female test connector - PSBJ 4/15/6 BK - 0303406



Female test connector, color: black

Female test connector - PSB 4/7/6 - 0303299



Female test connector, color: silver

Warning label printed

Warning label - WS 5- 8 - 1004416

Warning plate, with 2 plastic screws, across 5 terminal blocks, pitch 8 mm



Warning label - WS 4- 8 - 1004212

Warning plate, with 2 plastic screws, across 4 terminal blocks, pitch 8 mm



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Accessories

Warning label - WS 3- 8 - 1004128

Warning plate, with 2 plastic screws, across 3 terminal blocks, pitch 8 mm



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