MOREK

Creating a better future for You



OTL

Universal terminals

2019

Universal terminals OTL

1000 V AC/DC

Bimetal (AL/CU)

Class A

Certified according to standards EN 61238-1 and EN 60947-7-1



Universal terminals OTL are designed for copper and aluminium conductors. The terminals are suitable for all types of copper or aluminium conductors with cross-section up to 240 mm². Multiple copper wires can be placed to the universal terminals OTL blocks according to the respective terminal type (see Table of universal terminals OTL wiring connectivity on page 4). IP protection class for OTL terminals is IP20.



Certification and product safety

Universal terminals OTL are tested and certified by following standards:

EN 60947-7-1:2009 „Low-voltage switchgear and control gear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors"

EN 61238-1:2003 „Compression and mechanical connectors for power cables for rated voltages up to 30 kV (Um = 36 kV) - Part 1: Test methods and requirements"

All connectors used inside switchgears or similar appliances must fulfil these requirements.

EN 61238-1:2003 for copper and aluminium cables are divided into two classes.

Class A (heat cycle and **short-circuit tested**) - These are connectors intended for electricity distribution or industrial networks in which they can be subjected to short-circuits of relatively high intensity and duration. Therefore, Class A connectors are suitable for most applications.

Class B (heat cycle tests only, **not short-circuit tested**) - These are connectors for networks in which overloads or short-circuits are rapidly cleared by the installed protective devices, e.g. **fast-acting fuses.**

Universal terminals OTL are tested and certified class A connectors.

For choosing safe and reliable connector, always make sure that the terminal is equipped with CE and Class A markings with the symbol of certifying institute, for example FI -mark.

Material classification according to UL 94 V-0 standard (vertical burning test)

Criteria Conditions	94 V-0	94 V-1	94 V-2
Total flaming combustion for each specimen	**≤ 10 sec**	≤ 30 sec	≤ 30 sec
Total flaming combustion for all 5 specimens of any set	**≤ 50 sec**	≤ 250 sec	≤ 250 sec
Flaming and glowing combustion for each specimen after second burner flame application	**≤ 30 sec**	≤ 60 sec	≤ 60 sec
Cotton ignited by flaming drips from any specimen	**No**	No	Yes

Universal terminals OTL wiring connectivity

In case of Aluminum wire, only one wire is allowed to connect per connection

	Conductor cross-section (mm²) / number of copper wires per connection															Tightening torque	In (A)
Type	**1,5**	**2,5**	**4**	**6**	**10**	**16**	**25**	**35**	**50**	**70**	**95**	**120**	**150**	**185**	**240**	**(Nm)**	**AL / CU**
OTL 16	3 pcs	3 pcs	2 pcs	2 pcs	1 pcs	1 pcs										1,5 Nm (1,5 - 6 mm²) 7 Nm (10 - 16 mm²)	75 / 82
OTL 35 OTL 35-2 OTL 35-3X OTL 35-5X		3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs								3 Nm (2,5 - 16 mm²) 6 Nm (25 - 35 mm²)	120 / 135
OTL 50 OTL 50-2 OTL 50-3	3 pcs	3 pcs	3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs							1,5 Nm (1,5 - 2,5 mm²) 5 Nm (4 - 10 mm²) 10 Nm (16 - 50 mm²)	145 / 160
OTL 95 OTL 95-2 OTL 95-3				3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs	1 pcs					12 Nm (6 - 25 mm²) 22Nm (35 - 95 mm²)	220 / 245
OTL 150 OTL 150-2 OTL 150-3							3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs	1 pcs			14 Nm (25 - 50 mm²) 30 Nm (70 - 150 mm²)	290 / 320
OTL 240 OTL 240-2								3 pcs	3 pcs	3 pcs	2 pcs	2 pcs	1 pcs	1 pcs	1 pcs	26 Nm (35 - 120 mm²) 40 Nm (150 - 240 mm²)	380 / 425

1 pole (2 holes) universal terminals OTL

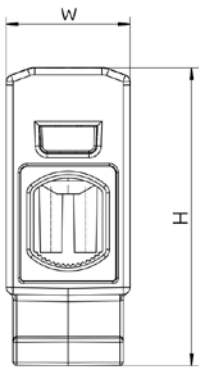


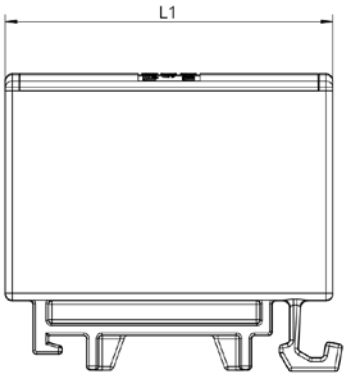


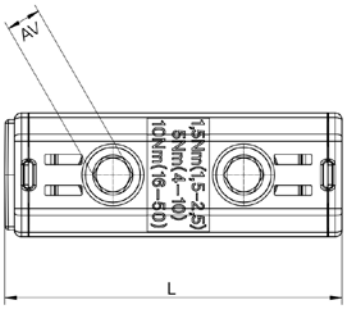


	OTL 16	OTL 35	OTL 50
Grey	MAA1016A10	MAA1035A10	MAA1050A10
Blue	MAA1016B10	MAA1035B10	MAA1050B10
Yellow-green	MAA1016Y10	MAA1035Y10	MAA1050Y10
Red	MAA1016R10	-	MAA1050R10
Black	MAA1016S10	-	MAA1050S10
Technical data			
Conductor cross-section CU, AL (mm²)	1,5 - 16	2,5 - 35	1,5 - 50
Nominal voltage AC/DC (V)	1000	1000	1000
Nominal current (A)	82 (CU) / 75 (AL)	135 (CU) / 120 (AL)	160 (CU) / 145 (AL)
Width / Height / Length (mm)	13,5 / 39,5 / 45	16 / 40 / 45	18 / 43 / 50
Screw, hexagonal key	No. 4	No. 4	No. 5
Tightening torque (Nm)	1,5 Nm (1,5 - 6 mm²) 7 Nm (10 - 16 mm²) -	3 Nm (2,5 - 16 mm²) 6 Nm (25 - 35 mm²) -	1,5 Nm (1,5 - 2,5 mm²) 5 Nm (4 - 10 mm²) 10 Nm (16 - 50 mm²)
Mounting	DIN rail	DIN rail	DIN rail
Weight (g)	15	27	30
Package (pcs)	30	30	50 / 30

Dimensions





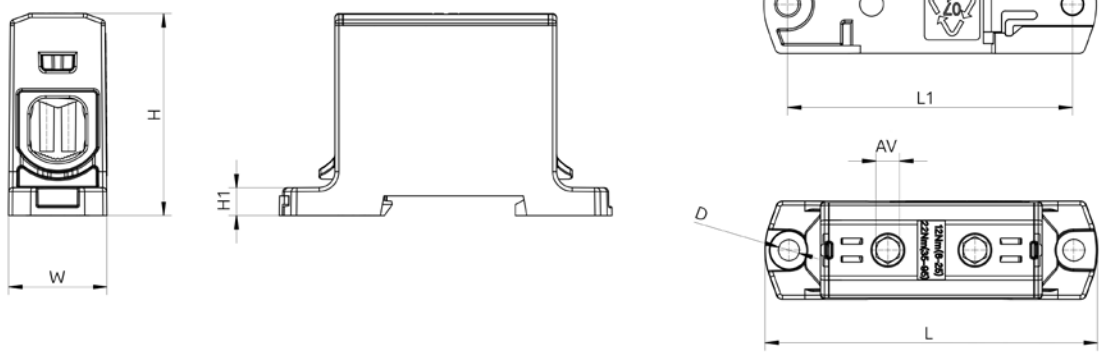






	OTL 95	OTL 150	OTL 240
Grey	MAA1095A10	MAA1150A10	MAA1240A10
Blue	MAA1095B10	MAA1150B10	MAA1240B10
Yellow-green	MAA1095Y10	MAA1150Y10	MAA1240Y10
Red	MAA1095R10	-	-
Black	MAA1095S10	-	-
Technical data			
Conductor cross-section CU, AL (mm^2)	6 - 95	25 - 150	35 - 240
Nominal voltage AC/DC (V)	1000	1000	1000
Nominal current (A)	245 (CU) / 220 (AL)	320 (CU) / 290 (AL)	425 (CU) / 380 (AL)
Width / Height / Length (mm)	25 / 51 / 84	31 / 54 / 84	37 / 65 / 106
Screw, hexagonal key	No. 6	No. 6	No. 8
Tightening torque (Nm)	12 Nm (6 - 25 mm^2) 22 Nm (35 - 95 mm^2) -	14 Nm (25 - 50 mm^2) 30 Nm (70 - 150 mm^2)	26 Nm (35 - 120 mm^2) 40 Nm (150 - 240 mm^2)
Mounting	DIN rail, screw	DIN rail, screw	DIN rail, screw
Weight (g)	65	100	195
Package (pcs)	20 / 10	20 / 10	10 / 3

Dimensions

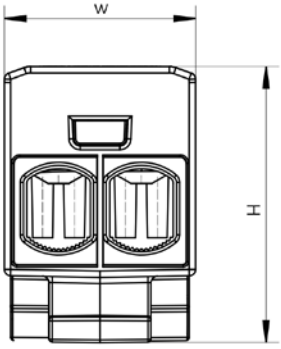


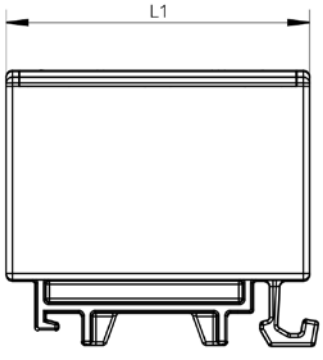


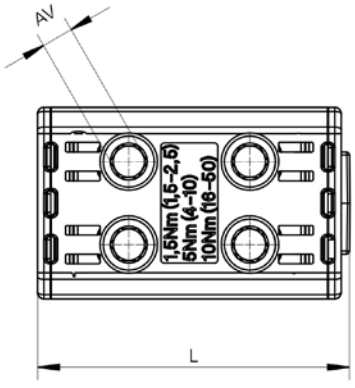


	OTL 35-2	OTL 50-2
Grey	MAA2035A10	MAA2050A10
Blue	MAA2035B10	MAA2050B10
Yellow-green	MAA2035Y10	MAA2050Y10
Red	-	MAA2050R10
Black	-	MAA2050S10
Technical data		
Conductor cross-section CU, AL (mm^2)	2,5 - 35	1,5 - 50
Nominal voltage AC/DC (V)	1000	1000
Nominal current (A)	135 (CU) / 120 (AL)	160 (CU) / 145 (AL)
Width / Height / Length (mm)	27 / 40 / 46	30 / 43 / 49
Screw, hexagonal key	No. 4	No. 5
Tightening torque (Nm)	3 Nm (2,5 - 16 mm^2) 6 Nm (25 - 35 mm^2) -	1,5 Nm (1,5 - 2,5 mm^2) 5 Nm (4 - 10 mm^2) 10 Nm (16 - 50 mm^2)
Mounting	DIN rail	DIN rail
Weight (g)	44	90
Package (pcs)	18	15

Dimensions







1 pole (4 holes) universal terminals OTL

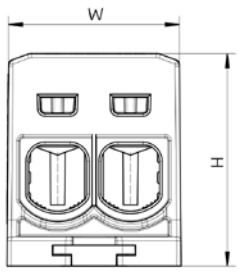


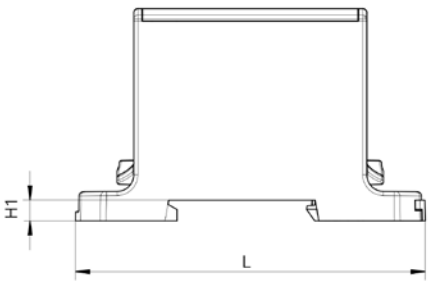


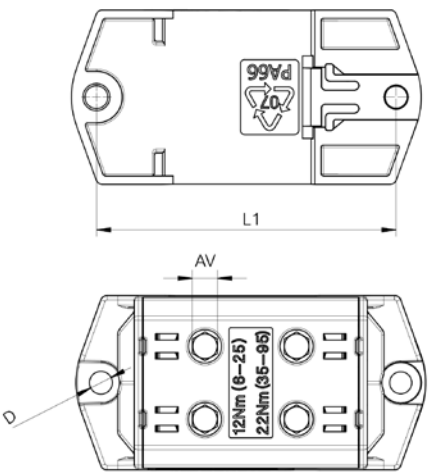


	OTL 95-2	OTL 150-2	OTL 240-2
Grey	MAA2095A10	MAA2150A10	MAA2240A10
Blue	MAA2095B10	MAA2150B10	MAA2240B10
Yellow-green	MAA2095Y10	MAA2150Y10	MAA2240Y10
Red	MAA2095R10	-	-
Black	MAA2095S10	-	-
Technical data			
Conductor cross-section CU, AL (mm^2)	6 - 95	25 - 150	35 - 240
Nominal voltage AC/DC (V)	1000	1000	1000
Nominal current (A)	245 (CU) / 220 (AL)	320 (CU) / 290 (AL)	425 (CU) / 380 (AL)
Width / Height / Length (mm)	42 / 51 / 84	51 / 54 / 84	60 / 65 / 106
Screw, hexagonal key	No. 6	No. 6	No. 8
Tightening torque (Nm)	12 Nm (6 - 25 mm^2) 22 Nm (35 - 95 mm^2) -	14 Nm (25 - 50 mm^2) 30 Nm (70 - 150 mm^2) -	26 Nm (35 - 120 mm^2) 40 Nm (150 - 240 mm^2) -
Mounting	DIN rail, screw	DIN rail, screw	DIN rail, screw
Weight (g)	125	170	340
Package (pcs)	30 / 15	10 / 5	6 / 3

Dimensions







1 pole (6 holes) universal terminals OTL







	OTL 50-3	OTL 95-3	OTL 150-3
Grey	MAA3050A10	MAA3095A10	MAA3150A10
Blue	MAA3050B10	MAA3095B10	MAA3150B10
Yellow-green	MAA3050Y10	MAA3095Y10	MAA3150Y10

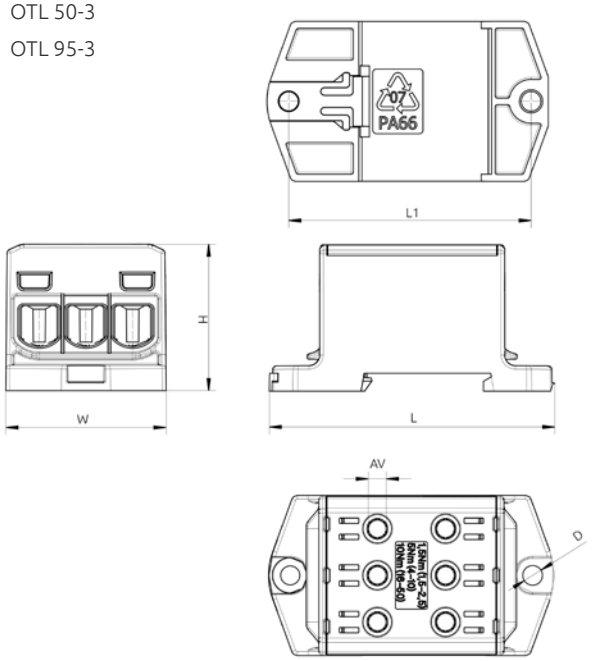
Technical data

Conductor cross-section CU, AL (mm²)	1.5 - 50	6 - 95	25 - 150
Nominal voltage AC/DC (V)	1000	1000	1000
Nominal current (A)	160 (CU) / 145 (AL)	245 (CU) / 220 (AL)	320 CU / 290 (AL)
Width / Height / Length (mm)	46 / 41 / 80	59 / 51 / 84	71 / 54 / 84
Screw, hexagonal key	No. 5	No. 6	No. 6
Tightening torque (Nm)	1,5 Nm (1,5 - 2,5 mm²) 5 Nm (4 - 10 mm²) 10 Nm (16 - 50 mm²)	12 Nm (6 - 25 mm²) 22 Nm (35 - 95 mm²) -	14 Nm (25 - 50 mm²) 30 Nm (70 - 150 mm²) -
Mounting	DIN rail, screw	DIN rail, screw	DIN rail, screw
Weight (g)	109	178	246
Package (pcs)	20	6	6

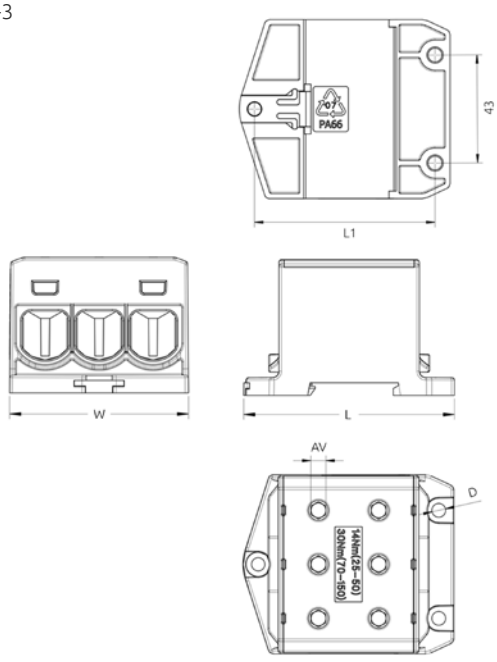
Dimensions

OTL 50-3

OTL 95-3



OTL 150-3



MOREK 3 pole (6 holes), 5 pole (10 holes) universal terminals OTL







	OTL 35-3X	OTL 50-3X	OTL 35-5X
Grey	MAA1335A10	MAA1350A10	-
Grey, Blue, Yellow-green	-	-	MAA5035A10

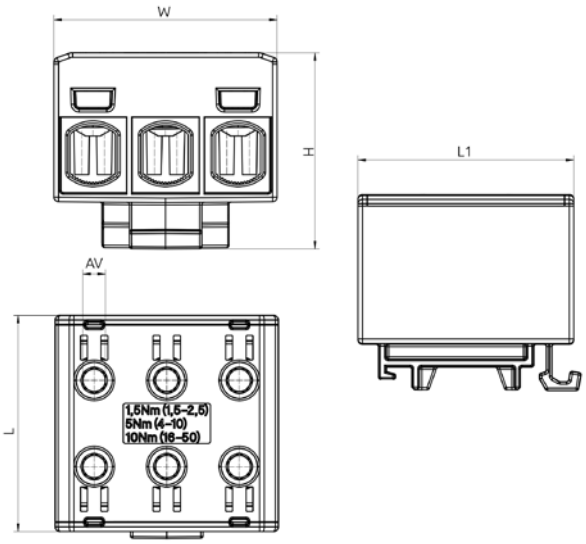
Technical data

Conductor cross-section CU, AL (mm²)	2,5 - 35	1,5 - 50	2,5 - 35
Nominal voltage AC/DC (V)	1000	1000	1000
Nominal current (A)	3 x 135 (CU) / 3 x 120 (AL)	3 x 160 (CU) / 3 x 145 (AL)	3 x 135 (CU) / 3 x 120 (AL)
Width / Height / Length (mm)	46 / 40 / 46	49 / 43 / 49	79 / 40 / 65
Screw, hexagonal key	No. 4	No. 5	No. 4
Tightening torque (Nm)	3 Nm (2,5 - 16 mm²) 6 Nm (25 - 35 mm²)	1,5 Nm (1,5 - 2,5 mm²) 5 Nm (4 - 10 mm²) 10 Nm (16 - 50 mm²)	3 Nm (2,5 - 16 mm²) 6 Nm (25 - 35 mm²)
Mounting	DIN rail	DIN rail	DIN rail, screw
Weight (g)	70	81	120
Package (pcs)	20	20	10

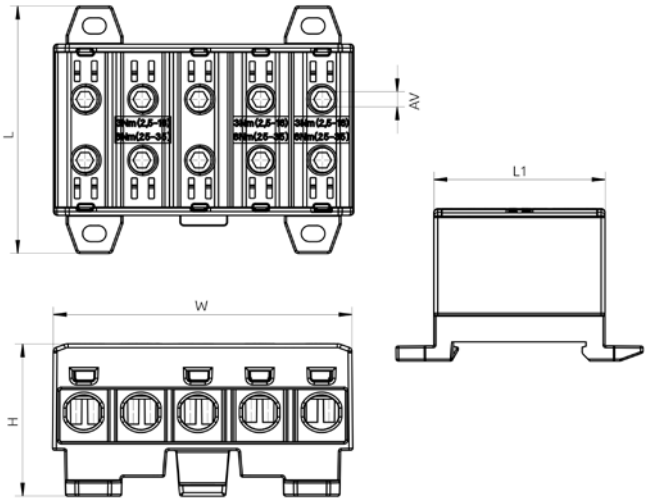
Dimensions

OTL 35-3X

OTL 50-3X



OTL 35-5X



Protective plastic covers for universal terminals OTL



Protective plastic covers are offered as accessories for universal terminals OTL. They are used for blanking unused connection space or for maintaining IP20 protection class when using wire with smaller cross-section. These accessories are offered for terminals series OTL 50, OTL 95, OTL 150 and OTL 240.









	Finger guard OTL 50	Finger guard OTL 95	Finger guard OTL 150	Finger guard OTL 240
Grey	MAA0050A10	MAA0095A10	MAA0150A10	MAA0240A10
Technical data				
Width / Height / Length (mm)	14 / 31,5 / 10	18,3 / 45 / 10	22 / 47,5 / 10	28 / 57,5 / 10
Material	PA 66	PA 66	PA 66	PA 66
Weight (g)	0,8	1,4	1,7	2,7
Package (pcs)	10	10	10	10

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