

Universal terminals OTL

According to IEC

1000V AC
1500V DC

According to UL

1000V AC/DC

Bimetal

(Al/Cu)

Class A



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 300 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 9). IP protection class for OTL terminals is IP20.



Certification and product safety

Universal terminals OTL undergo rigorous testing and certification to ensure compliance with industry standards. They are certified according to **EN 60947-7-1:2009** and **EN 61238-1:2003**, which establish requirements for terminal blocks and connectors for power cables.

EN 61238-1:2003 classifies connectors into two categories

Class A, which undergo heat cycle and short-circuit testing for electricity distribution and industrial networks.

Class B, which only undergo heat cycle testing and are suitable for networks with rapid overload or short-circuit protection.

Universal terminals OTL are certified as Class A connectors, making them suitable for most applications. When choosing a connector, it is essential to ensure it bears the CE marking and Class A certification symbol, such as the FI mark, for reliable and safe electrical connections.

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

Type	Conductor cross-section (mm ²) / number of copper wires per connection															Tightening torque (Nm)	In (A) Al / Cu	
	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240			300
OTL 16	3 pcs	3 pcs	2 pcs	2 pcs	1 pcs	1 pcs											1,5 Nm (1,5 - 6 mm ²) 7 Nm (10 - 16 mm ²)	75 / 82
OTL 35																	3 Nm (2,5 - 16 mm ²) 6 Nm (25 - 35 mm ²)	120 / 135
OTL 35-2		3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs										
OTL 35-3X																		
OTL 35-5X																		
OTL 50																	1,5 Nm (1,5 - 2,5 mm ²) 5 Nm (4 - 10 mm ²) 10 Nm (16 - 50 mm ²)	145 / 160
OTL 50-2	3 pcs	3 pcs	3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs									
OTL 50-3																		
OTL 95																	12 Nm (6 - 25 mm ²) 22Nm (35 - 95 mm ²)	220 / 245
OTL 95-2				3 pcs	3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs	1 pcs							
OTL 95-3																		
OTL 150																	14 Nm (25 - 50 mm ²) 30 Nm (70 - 150 mm ²)	290 / 320
OTL 150-2							3 pcs	3 pcs	3 pcs	2 pcs	1 pcs	1 pcs	1 pcs					
OTL 150-3																		
OTL 240																	26 Nm (35 - 120 mm ²) 40 Nm (150 - 240 mm ²)	380 / 425
OTL 240-2								3 pcs	3 pcs	3 pcs	2 pcs	2 pcs	1 pcs	1 pcs	1 pcs			
OTL 300-1											3 pcs	2 pcs	2 pcs	1 pcs	1 pcs	1 pcs	35 Nm (95-150 mm ²) 60 Nm (185-300 mm ²)	440 / 490
OTL 300-3											3 pcs	2 pcs	2 pcs	1 pcs	1 pcs	1 pcs	35 Nm (95 - 150 mm ²) 45 Nm (185 - 300 mm ²)	630 / 630

We recommend using cable end sleeves, when using fine-strand wires with following cross-sections (single-wire connections):

- OTL 16:** 1,5 mm²...6 mm²
- OTL 35:** 2,5 mm²...10 mm²
- OTL 50:** 1,5 mm²...16 mm²
- OTL 95:** 6 mm²...35 mm²
- OTL 150:** 25 mm²...70 mm²
- OTL 240:** 35 mm²...120 mm²
- OTL 300:** 95 mm²...150 mm²