# MOLEX HIGH-CURRENT ›
# UNIVERSAL CLAMP TERMINAL BLOCK

*A vital connection between high-current,*
*high-voltage devices and the power source*

molex®

# Where are Molex High-Current, Universal Clamp Terminal Blocks Needed?

Molex High-Current, Universal Clamp Terminal Blocks are a versatile solution for many application requirements where Aluminum to Aluminum, Copper to Copper or Aluminum to Copper conductor terminations are needed. Reliability and safety become paramount where a high-current and voltage power source is terminated to building infrastructure or an electrical device. Molex High-Current, Universal Clamp Terminal Blocks can be depended on to perform at the highest level of performance and standards.

## Depend on Molex High-Current, Universal Clamp Terminal Blocks for such applications as...

**Motor inverters**
**Motor drives**
**Motor control systems**
**Switchgears**
**Power distribution panels and cabinets**
**Vehicle charging stations**
**Commercial Vehicles**
**Electric trains**
**Photovoltaic systems**

*Infrastructure*

*Renewable Energy*

*Commercial Vehicle*

*Metering and Control*

*Maritime*

*Waste Water Treatment*

*Doors and Gates*

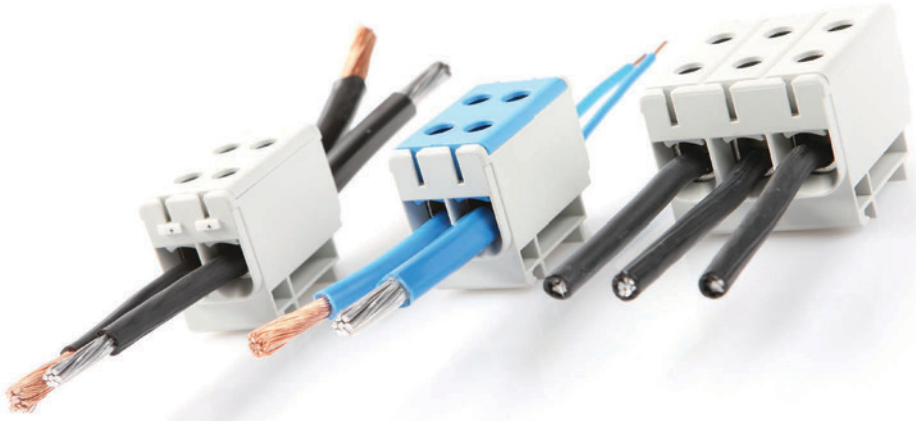
*Mass Transportation*

## The Case for IEC EN 61238-1:2003 Class A Certification

*Molex High-Current, Universal Clamp Terminal Blocks are suitable for Aluminum wire terminations. This means the Molex connectors have been short circuit tested according to the stringent requirements of IEC standard EN 61238-1:2003 to be Class A Certified for both general equipment and as feed-in terminations. Aluminum is a common wire material for high-voltage, high-amperage power feed line applications. Customers can rest assured Molex connectors will be reliable for their applications.*

*Molex Universal Terminal Blocks are suitable for feed-in lines*

*Molex Universal Terminal Blocks are suitable electrical switchboards*



## Conductor Material Conflict Resolution

As a rule, Aluminum and Copper alloys do not co-exist very well. When the two alloys come in contact, a chemical reaction takes place that causes them to oxidize. The oxidation can create a electrically high-resistance connection. This potential condition generates voltage drop across the connection leading to three serious problems:

**Poor efficiency**

**Equipment damage**

**Dangerous thermal runaway which can create an electrical fire**

Molex High-Current, Universal Clamp Terminal Blocks are designed to safely connect Aluminum and Copper wires due to their isolated, Tin plated Aluminum contacts and screws. Tin is a plating that can come into contact with either Aluminum or Copper conductors as it will not oxidize with either material. The connector body is also partitioned to prevent a bare Aluminum wire from coming in contact with a bare Copper wire.

## Specifications

Certification Marks: UL, CE
Design Standards: UL: 1059
IEC: EN60947-7-1:2009; EN61238-1:2003

**Technical Information**
Maximum Voltage (UL): 600 to 1000
Amperage Range (UL): 120 to 380
*Wire Range: 500 MCM to 6 AWG

**Materials**
Housing: Polyamide
Body and screws: Tin-coated aluminum

**Mechanical Features**
Screw head: Hexagonal
Mounting: Screws or DIN rail

*Ferrules are recommended when using the product with flexible wire.

35mm DIN rail MX-PP37

Marking Strips MX-PM34.0X
(Contact factory for list of available marks)

MX-KE63.2

MX-69.3

MX-KE161.2

MX-KE162.6

DIN rail end clip MX-KRL2

MX-KE61

MX-KE66

MX-KE161

Terminal Shroud MX-KEL62

MX-KE163.4

## One pole terminal blocks, 600V maximum rating

| Order No. | Engineering No.* | Wire Type | Wire Gauge (AWG) | Maximum Voltage | Maximum Amperage | Tightening Torque (in/lbs) | Allen-hex Socket Head Required (mm) | Mounting Type | Weight (g) | Package Quantity |
|---|---|---|---|---|---|---|---|---|---|---|
| 201606-0610 | MX-KE61 | Cu | 1/0 – 6 | 600 | 150 | 90 (10nm) | 5 | DIN Rail | 30 | 30 |
| | | Al | | | 120 | | | | | |
| 201606-0620 | MX-KE62 | Cu | 4/0 – 4 | 600 | 230 | 126 (14nm) | 5 | DIN Rail/ Screw | 74 | 30 |
| | | Al | | | 180 | | | | | |
| 201606-0630 | MX-KE63 | Cu | 300 MCM – 2 | 600 | 285 | 216 (24nm) | 8 | DIN Rail/ Screw | 120 | 30 |
| | | Al | | | 230 | | | | | |
| 201606-0640 | MX-KE64 | Cu | 500 MCM – 3/0 | 600 | 380 | 360 (40nm) | 8 | Screw | 249 | 30 |
| | | Al | | | 310 | | | | | |

## Three pole terminal block, 600V maximum rating

| Order No. | Engineering No.* | Wire Type | Wire Gauge (AWG) | Maximum Voltage | Maximum Amperage | Tightening Torque (in/lbs) | Allen-hex Socket Head Required (mm) | Mounting Type | Weight (g) | Package Quantity |
|---|---|---|---|---|---|---|---|---|---|---|
| 201606-6163 | MX-KE61.03 | Cu | 1/0 – 6 | 600 | 150 | 90 (10nm) | 5 | DIN Rail | 77 | 30 |
| | | Al | | | 120 | | | | | |

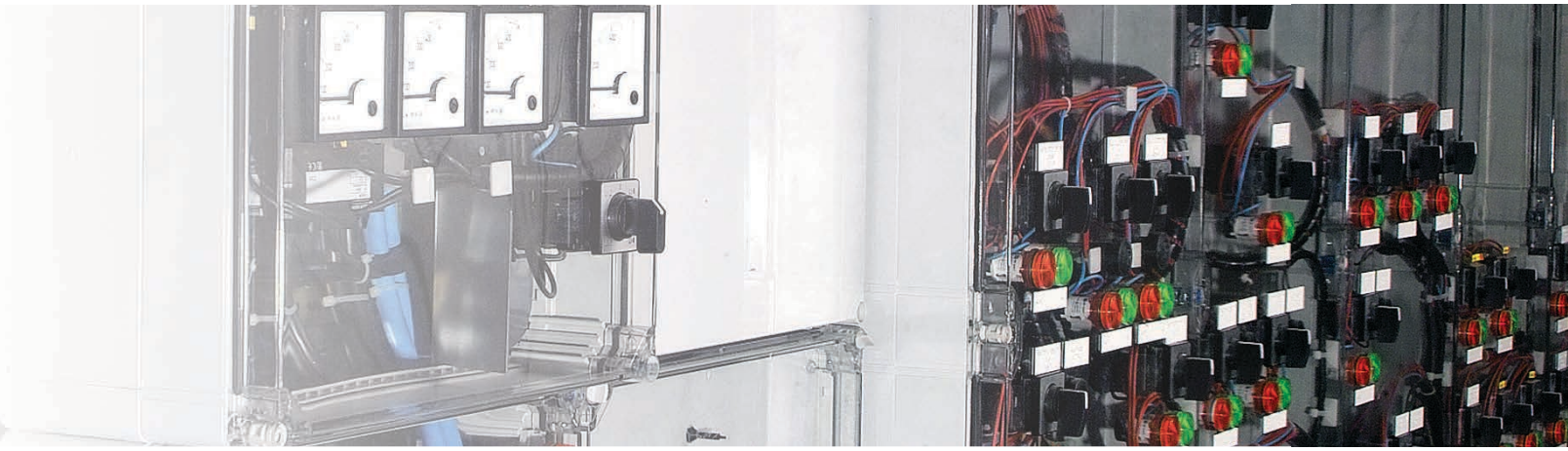
## Tapping terminal blocks (one pole, four connections), 600V maximum rating

| Order No. | Engineering No.* | Wire Type | Wire Gauge (AWG) | Maximum Voltage | Maximum Amperage | Tightening Torque (in/lbs) | Allen-hex Socket Head Required (mm) | Mounting Type | Weight (g) | Package Quantity |
|---|---|---|---|---|---|---|---|---|---|---|
| 201606-0660 | MX-KE66 | Cu | 1/0 – 6 | 600 | 150 | 90 (10nm) | 5 | DIN Rail | 49 | 30 |
| | | Al | | | 120 | | | | | |
| 201606-0670 | MX-KE67 | Cu | 4/0 – 4 | 600 | 230 | 126 (14nm) | 5 | DIN Rail/ Screw | 128 | 30 |
| | | Al | | | 180 | | | | | |
| 201606-0680 | MX-KE68 | Cu | 300 MCM – 2 | 600 | 285 | 216 (24nm) | 8 | DIN Rail/ Screw | 210 | 30 |
| | | Al | | | 230 | | | | | |
| 201606-0690 | MX-KE69 | Cu | 500 MCM – 3/0 | 600 | 380 | 360 (40nm) | 8 | Screw | 438 | 30 |
| | | Al | | | 310 | | | | | |

## Three pole terminal blocks, 1000V maximum rating

| Order No. | Engineering No.* | Wire Type | Wire Gauge (AWG) | Maximum Voltage | Maximum Amperage | Tightening Torque (in/lbs) | Allen-hex Socket Head Required (mm) | Mounting Type | Weight (g) | Package Quantity |
|---|---|---|---|---|---|---|---|---|---|---|
| 201606-1610 | MX-KE161 | Cu | 1/0 – 6 | 1000 | 150 | 90 (10nm) | 5 | DIN Rail/ Screw | 49 | 30 |
| | | Al | | | 120 | | | | | |
| 201606-1620 | MX-KE162 | Cu | 4/0 – 4 | 1000 | 230 | 126 (14nm) | 5 | DIN Rail/ Screw | 91 | 30 |
| | | Al | | | 180 | | | | | |
| 201606-1630 | MX-KE163 | Cu | 300 MCM – 2 | 1000 | 285 | 216 (24nm) | 8 | DIN Rail/ Screw | 143 | 30 |
| | | Al | | | 230 | | | | | |

*Standard color is grey. Please visit molex.com to view available, optional colors.



# What is a Molex High-Current Universal Clamp Terminal Block?

## A powerful, yet compact and robust designed product

An adaptable wire-to-wire terminal block which can be mounted to a panel using either a DIN-rail or direct mounted with screws.

Terminations are accomplished with hexagonal screws for ultimate secureness.

Includes oxidation inhibiting compound to maximize electrical conductivity.

## A product which meets demanding and varied global industry ratings

Connectors are certified to both IEC and UL standards for suitable use in domestic and international applications.

Connectors are certified to meet the rigorous connector Class A standard per IEC EN 61238-1:2003 providing the following benefits:

Third party tested and verified to survive a short circuit in high-current and high-voltage feed-in lines.

Suitable for use in switchboard applications which do not have fast-acting fuses.

## A versatile and multi-purpose product

Uniquely suitable for use with either Copper or Aluminum wires.

Ideally suited for transitioning between Aluminum and Copper wires without the need for cable clamps.

High voltage models available in 600V or 1000V per UL 1059 and 800V or 1000V per EN 60947.

Includes 1000 VDC (per UL 1059) suitability for photovoltaic systems.

High-current models that range from 150 to 380 amperes per UL 1059 or 160 to 425 amperes per EN 60947.

**Models available:**

One pole, side-by-side stackable (Product code MX-KE61, MX-KE62, MX-KE63 and MX-KE64); three pole (Product code MX-KE61.03) – ideal for 3 Phase electrical applications; one pole, tapping for two wires per circuit (Product code MX-KE66, MX-KE67, MX-KE68 and MX-KE69) – ideal for double tapping; 1000V rated, one pole (Product code MX-KE161, MX-KE162 and MX-KE163)

Alternative models available in different colors for easy identification.

Accessories such as terminal shrouds, DIN rail, DIN rail end clips and marking strips available to increase application adaptability.

Get customized insights at: **molex.com/link/hcucterminalblocks.html**

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