

Altech UL489 Busbar Systems

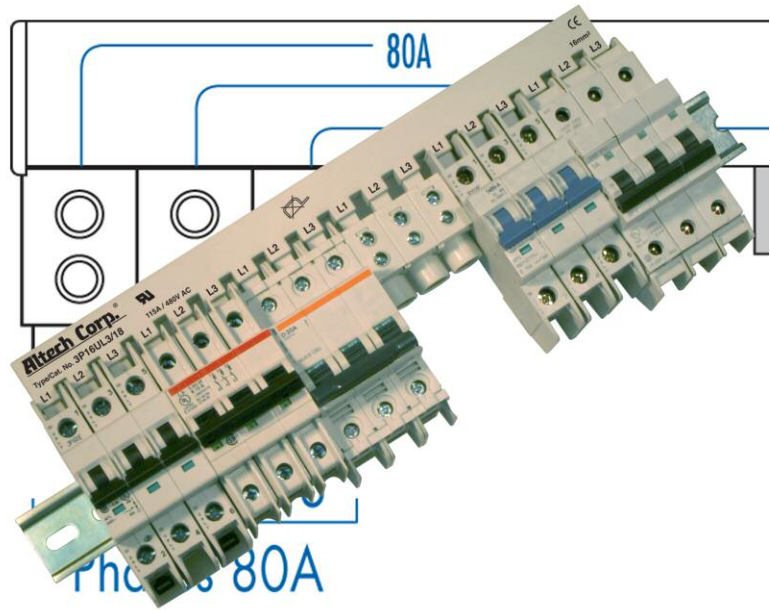


UL489 Listed Busbars

The Altech Busbar System is an innovative way to jumper up to 57 poles of Miniature Circuit Breakers (MCB).

The advantages of this busbar system are:

- 30% Installation time savings
- Panel space savings
- Reduced maintenance
- High electrical ratings



Universal UL489 Busbar fits most UL489 Miniature Circuit Breakers in the market!

Please contact Altech for details and further information.

UL489 Busbar System

- Every pin configuration is possible by combination of existing 6, 12 and 18 pin busbars.
- Power Feeding:
Power Feed Lug (115A), Direct Power Feed (115A)
- UL listed for Altech's L-Series of Miniature Circuit Breakers
- UL listed for use with most popular UL489 Miniature Circuit Breakers in the market.

| Technical Specifications | Busbars UL489 |
|----------------------------------|--|
| Material of Busbar | Copper |
| Material of Insulation (Housing) | Polyamid |
| Electrical Ratings | 115A/480VAC |
| Short Circuit Withstand Rating | 10kA |
| Applying Standards | UL489, VDE0660 Part 100, IEC60749, DIN EN60947-1 |

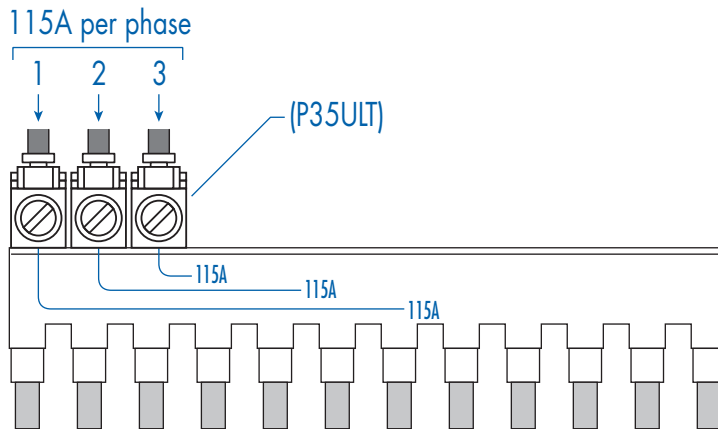
Altech UL489 Busbar System

Power Feed Methods

End Feed Method

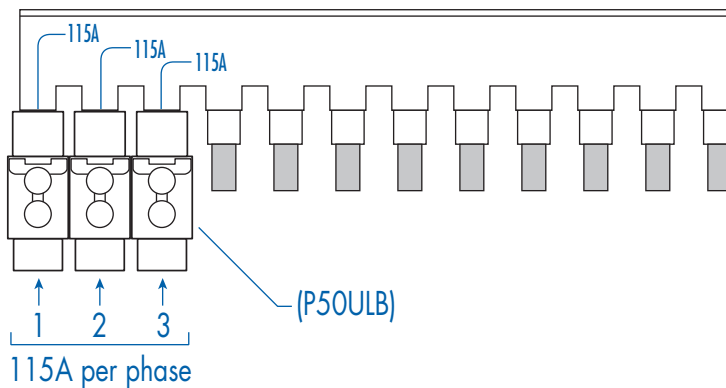
P35ULT*

With the **P35ULT** Power Feed Lug as a Start/End Feeding Device a maximum input current of **115A per Phase** can be achieved.



P50ULB*

With the **P50ULB** Modular Direct Power Feed as a Start/End Feeding Device a maximum input current of **115A per Phase** can be achieved.



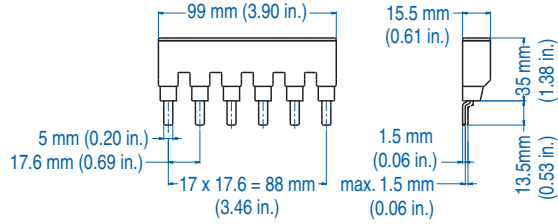
* For complete specifications and description of Feeding Devices see page 19.

1 PHASE BUSBAR

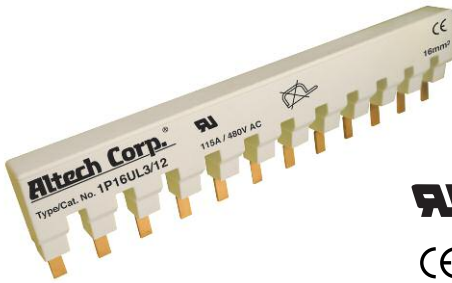
16mm² for 115A



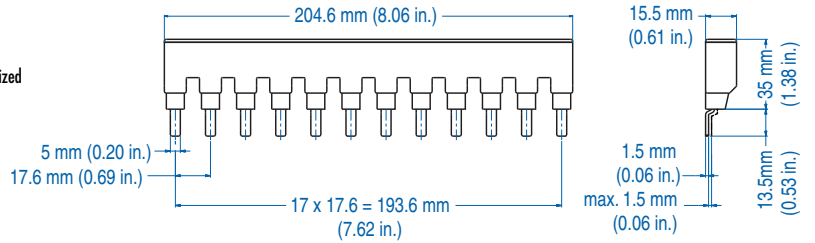
UL489 recognized
E305318
CE



| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 1P16UL3/6 | 6 | 99 |



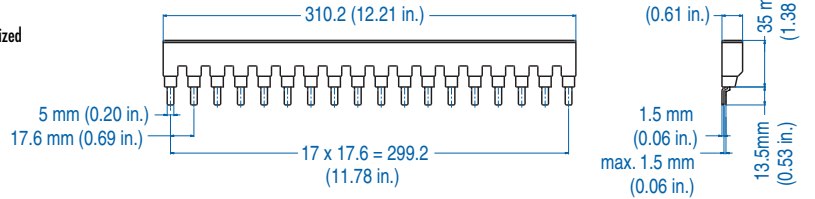
UL489 recognized
E305318
CE



| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 1P16UL3/12 | 12 | 204.6 |



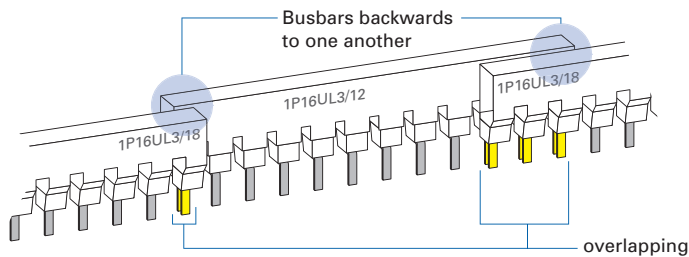
UL489 recognized
E305318
CE



| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 1P16UL3/18 | 18 | 310.2 |

Example for different No. of Pins

eg. 44 pins use 1x 1P16UL3/12 + 2x 1P16UL3/18



- No. of overlapping pins of 2 busbars must be a multiplier of the No. of phases
- Overlapping busbars are backwards to each other

ACCESSORIES



Type/Cat. No: **P35ULT**
Description: Power Feed Lug



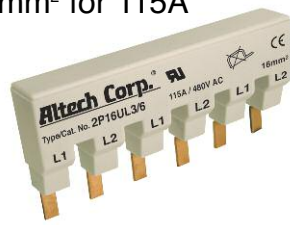
Type/Cat. No: **P50ULB**
Description: Modular Direct Power Feed



Type/Cat. No: **BRUL (3 per strip)**
Description: Insulation Cap

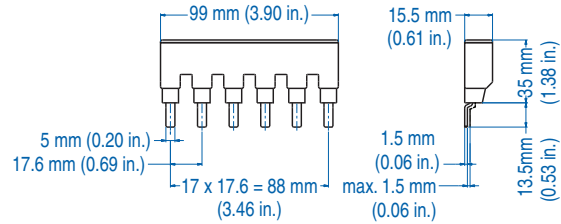
2 PHASE BUSBAR

16mm² for 115A

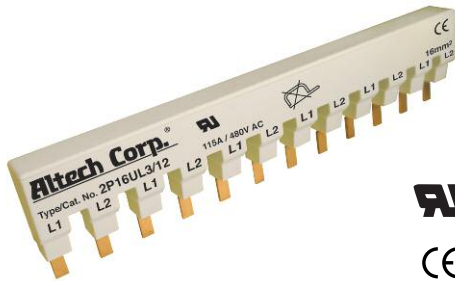


UL489 recognized
E305318

CE

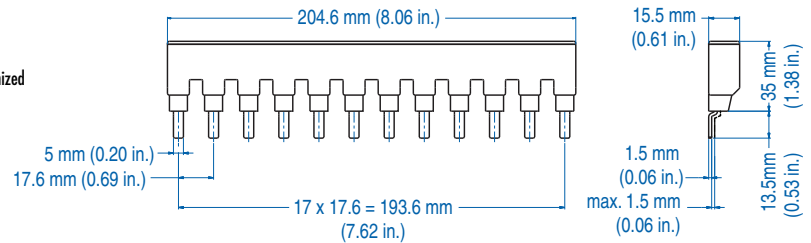


| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 2P16UL3/6 | 6 | 99 |

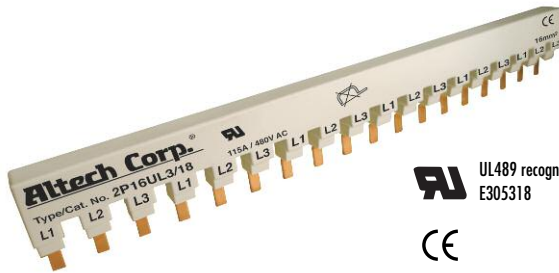


UL489 recognized
E305318

CE

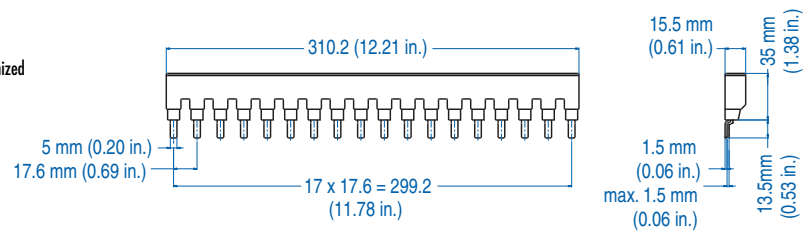


| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 2P16UL3/12 | 12 | 204.6 |



UL489 recognized
E305318

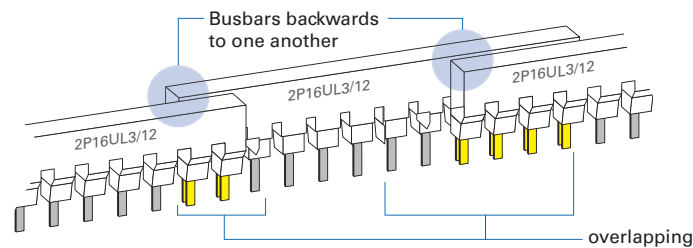
CE



| Type/ Cat. No. | No. of Pins | Length [mm] |
|-------------------|----------------|----------------|
| 2P16UL3/18 | 18 | 310.2 |

Example for different No. of Pins

eg. 30 pins use 3x 2P16UL3/12



- No. of overlapping pins of 2 busbars must be multiplier of the No. of phases
- Overlapping busbars are backwards to each other

ACCESSORIES



Type/Cat. No: **P35ULT**
Description: Power Feed Lug



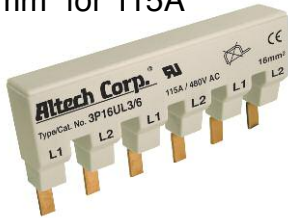
Type/Cat. No: **P50ULB**
Description: Modular Direct Power Feed



Type/Cat. No: **BRUL (3 per strip)**
Description: Insulation Cap

3 PHASE BUSBAR

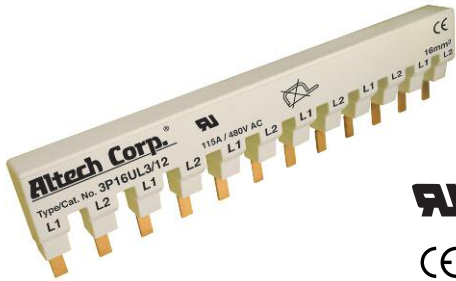
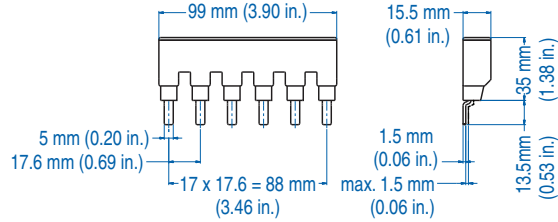
16mm² for 115A



UL UL489 listed
E305318
CE

Type/
Cat. No. No. of
Pins Length
[mm]

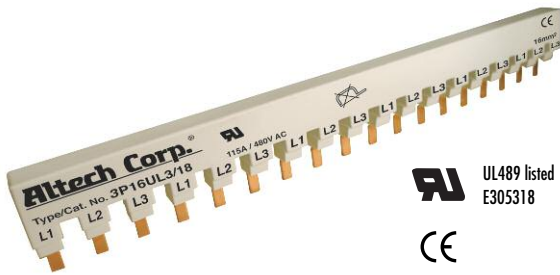
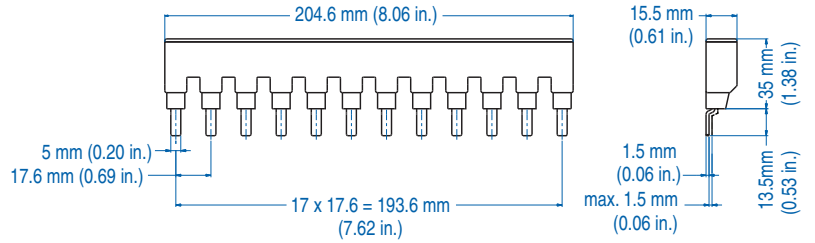
3P16UL3/6 6 99



UL UL489 listed
E305318
CE

Type/
Cat. No. No. of
Pins Length
[mm]

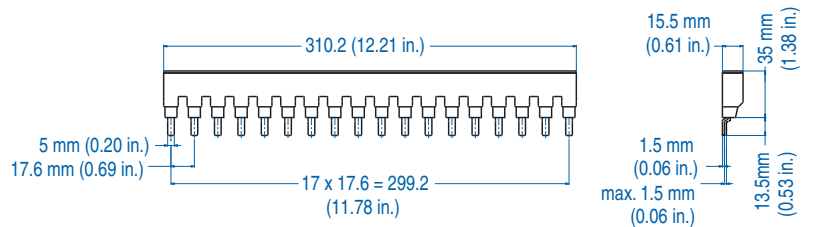
3P16UL3/12 12 204.6



UL UL489 listed
E305318
CE

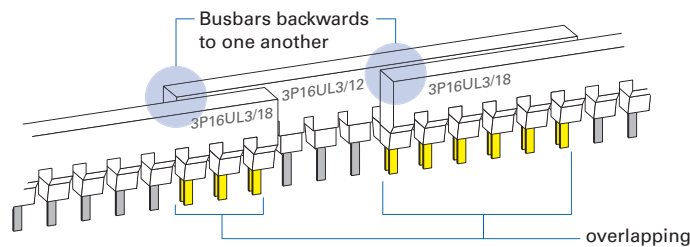
Type/
Cat. No. No. of
Pins Length
[mm]

3P16UL3/18 18 310.2



Example for different No. of Pins

eg. 39 pins use 1x 3P16UL3/12 + 2x 3P16UL3/18



- No. of overlapping pins of 2 busbars must be multiplier of the No. of phases
- Overlapping busbars are backwards to each other

ACCESSORIES



Type/Cat. No.: **P35ULT**
Description: Power Feed Lug



Type/Cat. No.: **P50ULB**
Description: Modular Direct Power Feed



Type/Cat. No.: **BRUL (3 per strip)**
Description: Insulation Cap

Power Feed Devices

Easy connection of power supply wires to the busbar/MCB. Power Feed Devices ensure permanent connection.

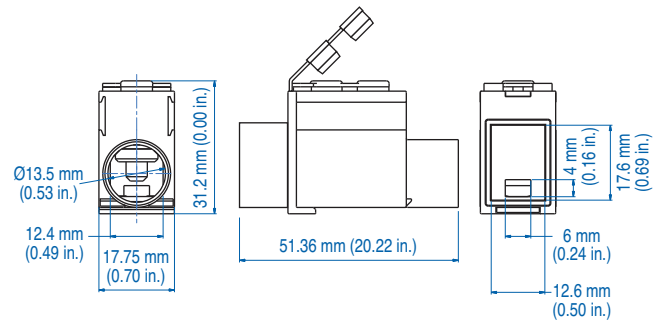
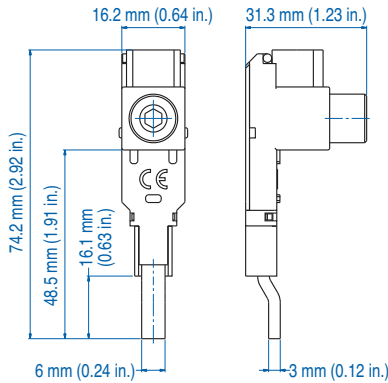
Power Feed Lug



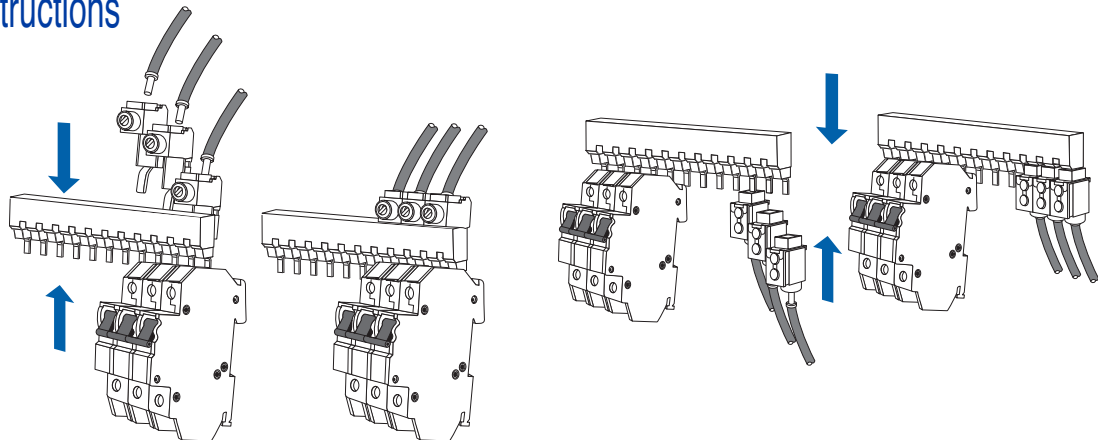
Modular Direct Power Feed



| Type/Cat. No. | P35ULT | P50ULB |
|-----------------------------|-------------------------------|---|
| Electrical Ratings | 115A/480V AC | 115A/480V AC |
| Conductors | 75 C° | 75 C° |
| Terminal Site Acceptability | 14-2AWG(1.53mm ²) | 14-1AWG(1.5-50mm ²) |
| Required Torque | 4Nm (35.4 lb. in.) | 3.5Nm/31 lb. in. (14-6AWG) 4Nm/35.4 lb. in. (4-1AWG) |
| Material of Lug | Brass | Brass |
| Insulation Material | Polyamid | Polyamid |
| For use with | UL489 1-3 phase Busbar | UL489 1-3 phase Busbar |



Assembly Instructions



Miscellaneous Accessories

Insulation Caps



Type/Cat. No:

BRUL (3 per strip)

Description:

Insulation Cap

Altech Busbar Systems

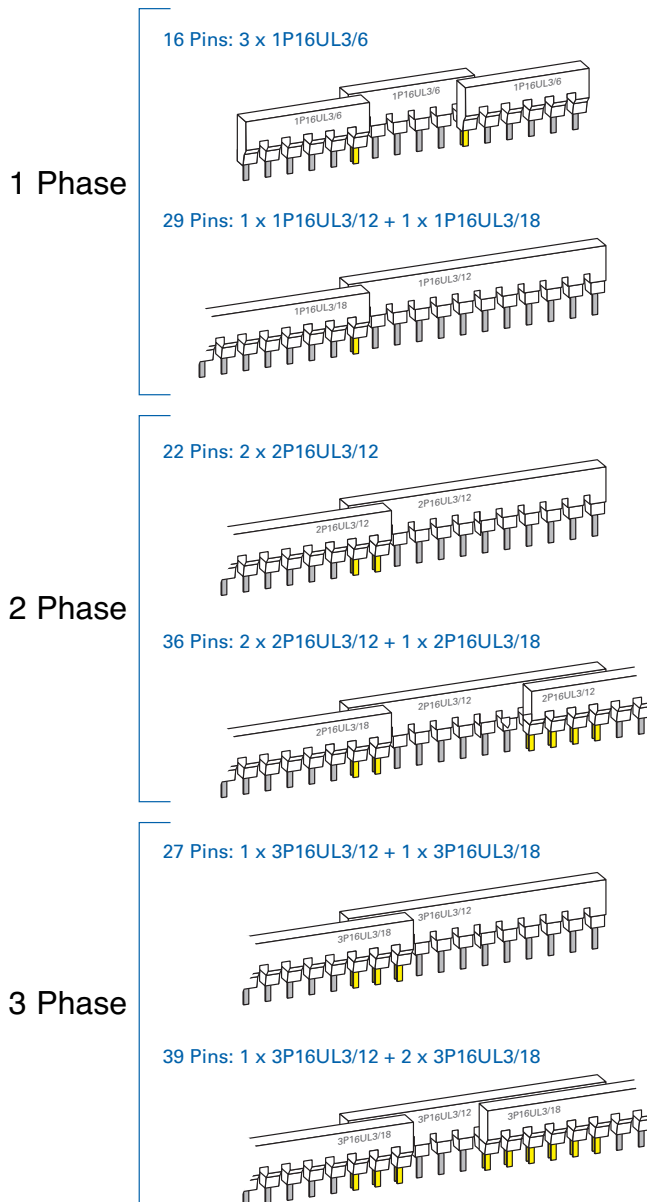
Configuration and Assembly of UL489 Busbars

UL489 Busbars are available in 3 different Pin Configurations per Phase, (6, 12 and 18 Pins).

The UL489 busbar cannot be cut, since the creepage and clearance distance requirements from UL are too stringent. Therefore, to obtain the desired No. of Pins, Busbar-Pins can be overlapped as explained below:

- 1) Busbars are overlapped backwards to each other. Both Pins of each Busbar fit together in the terminals of the Minature Circuit Breaker.
- 2) The Number of overlapping Pins of 2 Busbar must be a multiplier of the Number of Phases to keep existing Phase sequence. (Can be overlapped by more than the number of phases).
- 3) Any available combination of the 3 different Pin configurations is possible.
- 4) In most cases there is more than 1 combination possible.
- 5) For more possible configurations see Busbar Selection Table on page 21.

Configuration Examples*



*For Questions, other configurations and detailed information please contact Altech Corp.

Busbar Selection Table

| No. of Pins | Necessary Busbars | No. of Pins | Necessary Busbars | No. of Pins | Necessary Busbars | No. of Pins | Necessary Busbars |
|-----------------------|---|-------------|---|-----------------------|---|-----------------------|---|
| 1 Phase System | | | | | | | |
| 6 | 1x 1P16UL3/6 | 27 | 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 43 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | 38 | 1x 2P16UL3/6 + 2x 2P16UL3/18 3x 2P16UL3/18 |
| 7 | 2x 1P16UL3/6 | | 2x 1P16UL3/6 + 1x 1P16UL3/18 | 44 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | | 2x 2P16UL3/12 + 1x 2P16UL3/18 1x 2P16UL3/12 + 2x 2P16UL3/18 |
| 8 | 2x 1P16UL3/6 | | 3x 1P16UL3/12 | | | 40 | 3x 2P16UL3/18 1x 2P16UL3/12 + 2x 2P16UL3/18 |
| 9 | 2x 1P16UL3/6 | 28 | 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 45 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | 42 | 3x 2P16UL3/18 1x 2P16UL3/12 + 2x 2P16UL3/18 |
| 10 | 2x 1P16UL3/6 | | 2x 1P16UL3/6 + 1x 1P16UL3/18 | 46 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | 44 | 3x 2P16UL3/18 1x 2P16UL3/12 + 2x 2P16UL3/18 |
| 11 | 2x 1P16UL3/6 | | 3x 1P16UL3/12 | 47 | 3x 1P16UL3/18 | 46 | 3x 2P16UL3/18 |
| 12 | 1x 1P16UL3/12 3x 1P16UL3/6 | 29 | 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 48 | 3x 1P16UL3/18 | 48 | 3x 2P16UL3/18 |
| 13 | 2x 1P16UL3/12 3x 1P16UL3/6 1x 1P16UL3/6 + 1x 1P16UL3/12 | 30 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 49 | 3x 1P16UL3/18 | 50 | 3x 2P16UL3/18 |
| 14 | 2x 1P16UL3/12 3x 1P16UL3/6 1x 1P16UL3/6 + 1x 1P16UL3/12 | | | 50 | 3x 1P16UL3/18 | | |
| 15 | 2x 1P16UL3/12 3x 1P16UL3/6 1x 1P16UL3/6 + 1x 1P16UL3/12 | | 2x 1P16UL3/12 + 1x 1P16UL3/18 1x 1P16UL3/12 + 2x 1P16UL3/18 | 51 | 3x 1P16UL3/18 | | |
| 16 | 2x 1P16UL3/12 3x 1P16UL3/6 1x 1P16UL3/6 + 1x 1P16UL3/12 | 31 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 52 | 3x 1P16UL3/18 | 3 Phase System | |
| 17 | 2x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 | | 2x 1P16UL3/12 + 1x 1P16UL3/18 1x 1P16UL3/12 + 2x 1P16UL3/18 | 2 Phase System | | | |
| 18 | 1x 1P16UL3/18 2x 1P16UL3/12 2x 1P16UL3/6 + 1x 1P16UL3/12 1x 1P16UL3/6 + 2x 1P16UL3/12 | 32 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 6 | 1x 2P16UL3/6 | 9 | 2x 3P16UL3/6 |
| 19 | 2x 1P16UL3/12 2x 1P16UL3/18 2x 1P16UL3/6 + 1x 1P16UL3/12 1x 1P16UL3/6 + 2x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 33 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 8 | 2x 2P16UL3/6 | 12 | 1x 3P16UL3/12 3x 3P16UL3/6 |
| 20 | 2x 1P16UL3/12 2x 1P16UL3/18 1x 1P16UL3/6 + 2x 1P16UL3/12 2x 1P16UL3/6 + 1x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 34 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 10 | 2x 2P16UL3/6 | 15 | 1x 3P16UL3/6 + 1x 3P16UL3/12 2x 3P16UL3/12 |
| 21 | 2x 1P16UL3/12 2x 1P16UL3/18 2x 1P16UL3/6 + 1x 1P16UL3/12 1x 1P16UL3/6 + 2x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 35 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 12 | 3x 2P16UL3/6 1x 2P16UL3/12 | 18 | 1x 3P16UL3/18 1x 3P16UL3/12 + 2x 3P16UL3/6 2x 3P16UL3/12 |
| 22 | 2x 1P16UL3/12 2x 1P16UL3/18 2x 1P16UL3/6 + 1x 1P16UL3/12 1x 1P16UL3/6 + 2x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 36 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 14 | 3x 2P16UL3/6 2x 2P16UL3/12 1x 2P16UL3/6 + 1x 2P16UL3/12 | 21 | 2x 3P16UL3/12 1x 3P16UL3/6 + 1x 3P16UL3/18 1x 3P16UL3/12 + 1x 3P16UL3/18 2x 3P16UL3/18 |
| 23 | 2x 1P16UL3/12 2x 1P16UL3/18 1x 1P16UL3/6 + 1x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 37 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 16 | 2x 2P16UL3/12 1x 2P16UL3/6 + 1x 2P16UL3/12 | 24 | 1x 3P16UL3/12 + 1x 3P16UL3/18 2x 3P16UL3/6 + 1x 3P16UL3/18 1x 3P16UL3/6 + 2x 3P16UL3/12 3x 3P16UL3/12 2x 3P16UL3/18 |
| 24 | 2x 1P16UL3/12 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 | 38 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 18 | 1x 2P16UL3/18 2x 2P16UL3/12 2x 2P16UL3/6 + 1x 2P16UL3/12 | 27 | 1x 3P16UL3/12 + 1x 3P16UL3/18 2x 3P16UL3/18 3x 3P16UL3/12 |
| 25 | 2x 1P16UL3/12 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 2x 1P16UL3/6 + 1x 1P16UL3/18 3x 1P16UL3/12 | 39 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 20 | 2x 2P16UL3/6 + 1x 2P16UL3/12 1x 2P16UL3/6 + 1x 2P16UL3/18 2x 2P16UL3/12 2x 2P16UL3/18 1x 2P16UL3/12 + 1x 2P16UL3/18 | 30 | 2x 3P16UL3/18 2x 3P16UL3/12 + 1x 3P16UL3/18 3x 3P16UL3/12 1x 3P16UL3/6 + 1x 3P16UL3/12 + 1x 3P16UL3/18 |
| 26 | 2x 1P16UL3/18 1x 1P16UL3/12 + 1x 1P16UL3/18 2x 1P16UL3/6 + 1x 1P16UL3/18 3x 1P16UL3/12 | 40 | 2x 1P16UL3/18 3x 1P16UL3/12 1x 1P16UL3/6 + 1x 1P16UL3/12 + 1x 1P16UL3/18 | 22 | 2x 2P16UL3/12 2x 2P16UL3/18 1x 2P16UL3/6 + 1x 2P16UL3/18 1x 2P16UL3/12 + 1x 2P16UL3/18 | 33 | 2x 3P16UL3/18 2x 3P16UL3/12 + 1x 3P16UL3/18 3x 3P16UL3/12 1x 3P16UL3/6 + 1x 3P16UL3/12 + 1x 3P16UL3/18 |
| | | 41 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | 26 | 2x 2P16UL3/6 + 1x 2P16UL3/18 1x 2P16UL3/6 + 2x 2P16UL3/12 3x 2P16UL3/12 2x 2P16UL3/18 1x 2P16UL3/12 + 1x 2P16UL3/18 | 36 | 1x 3P16UL3/6 + 2x 3P16UL3/18 2x 3P16UL3/12 + 1x 3P16UL3/18 1x 3P16UL3/12 + 2x 3P16UL3/18 3x 3P16UL3/18 |
| | | 42 | 1x 1P16UL3/12 + 2x 1P16UL3/18 3x 1P16UL3/18 | 28 | 3x 2P16UL3/12 2x 2P16UL3/18 1x 2P16UL3/12 + 1x 2P16UL3/18 | 39 | 1x 3P16UL3/12 + 2x 3P16UL3/18 3x 3P16UL3/18 |
| | | | | 30 | 1x 2P16UL3/6 + 1x 2P16UL3/12 + 1x 2P16UL3/18 3x 2P16UL3/12 2x 2P16UL3/12 + 1x 2P16UL3/18 2x 2P16UL3/18 | 42 | 1x 3P16UL3/12 + 2x 3P16UL3/18 3x 3P16UL3/18 |
| | | | | 32 | 1x 2P16UL3/6 + 1x 2P16UL3/12 + 1x 2P16UL3/18 3x 2P16UL3/12 2x 2P16UL3/12 + 1x 2P16UL3/18 2x 2P16UL3/18 | 45 | 3x 3P16UL3/18 |
| | | | | 34 | 1x 2P16UL3/6 + 1x 2P16UL3/12 + 1x 2P16UL3/18 2x 2P16UL3/12 + 1x 2P16UL3/18 2x 2P16UL3/18 | 48 | 3x 3P16UL3/18 |
| | | | | 36 | 1x 2P16UL3/6 + 2x 2P16UL3/18 3x 2P16UL3/18 2x 2P16UL3/12 + 1x 2P16UL3/18 1x 2P16UL3/12 + 2x 2P16UL3/18 | | |

Note: For detailed information and examples see page 20.

Altech UL489

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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