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# Altech UL1077/508 Busbar System



## UL1077/508 Listed Busbars

The Altech Busbar System is an innovative way to jumper up to 57 poles of Manual Motor Controllers (MMC) and Supplementary Protectors (SP).

The advantages of this busbar system are:

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

### UL1077/508 Busbar System

- 1-57 different pin configurations
- 1/2 pole spacing (auxiliary switch) available
- Power Feeding:  
Power Feed Lugs (115A), Direct Power Feed (115A), Power Feed Block (200A)
- UL recognized and listed for Altech's R-Series, ABL's UR, V-EA and MA Series of Manual Motor Controllers and Supplementary Protectors
- UL recognized and listed for use with most popular UL1077 supplementary protectors and UL508 Manual Motor Controllers in the market.
- Customers can cut the Busbar without losing the UL approval
- Line/Load reversible

#### Technical Specifications

##### Material of Busbar

#### Busbars UL1077/ 508

Copper

##### Material of Insulation (Housing)

Polyamide

##### Electrical Ratings

18mm<sup>2</sup>: 80A/600V AC/DC\*

25mm<sup>2</sup>: 100A/600V AC/DC\*

##### Short Circuit Withstand Rating

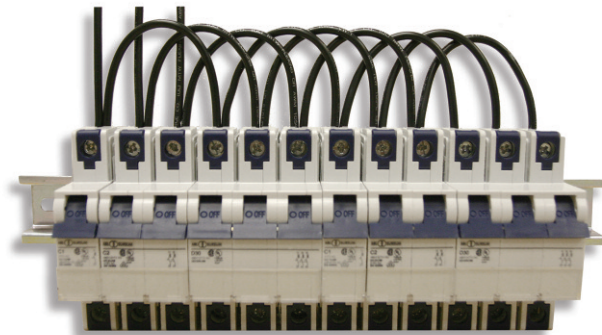
10kA

##### Applying Standards

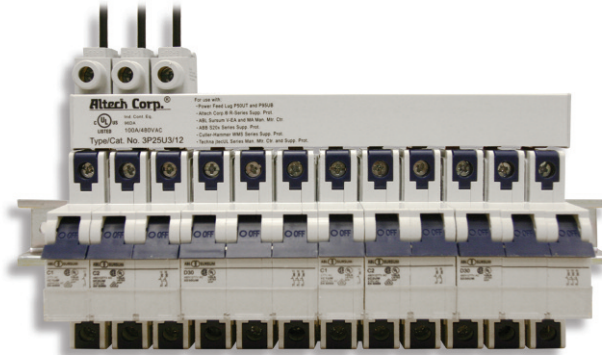
UL508, VDE0660 Part 100 and 502,

VDE 0606, VDE 0659

Without Altech Busbar System



With Altech Busbar System



**Universal UL1077/508 Busbar fits most Supplementary Protectors and Manual Motor Controllers in the market!**

*Please contact Altech for details and further information.*

\* 1000VDC ratings can be achieved by using all poles at the same voltage and polarity.



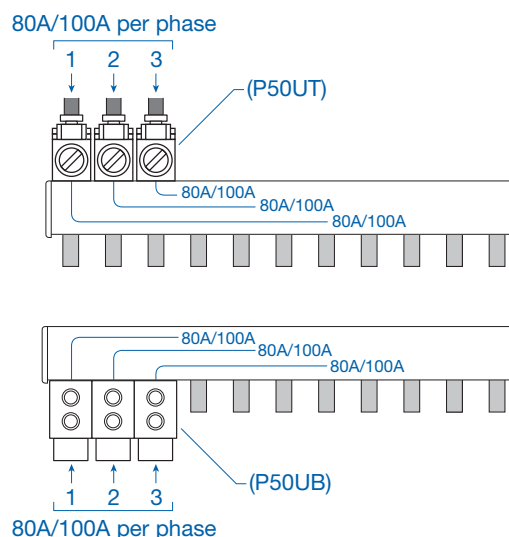
# Altech UL1077/508 Busbar System

## Power Feed Methods

### 1) Start/ End Feed Method

#### P50UT\* / P50UB\*

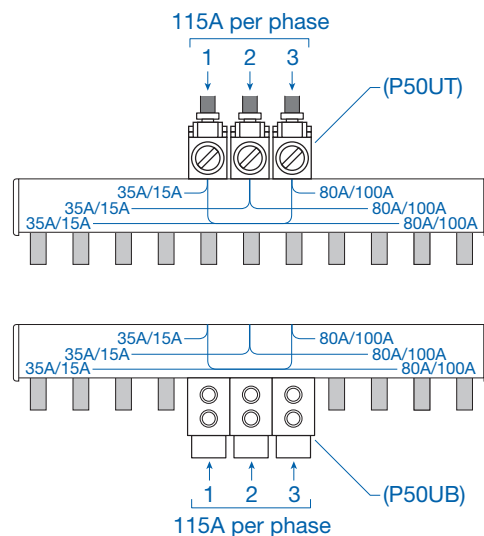
With the **P50UT** Power Feed Lug or the **P50UB** Modular Direct Power Feed as a Start/End Feeding Device a maximum input current of **80A/100A per Phase** can be achieved. 80A with 18mm<sup>2</sup> Busbar and 100A with 25mm<sup>2</sup> Busbar.



### 2) Center/ Middle Feed Method

#### P50UT\* / P50UB\*

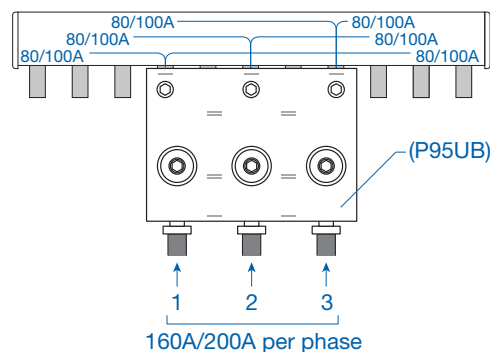
With the **P50UT** Power Feed Lug or the **P50UB** Modular Direct Power Feed as a Center/Middle Feeding Device a maximum input current of **115A per Phase** can be achieved. (18mm<sup>2</sup>: 80A + 35A; 25mm<sup>2</sup>: 100A + 15A)



#### P95UB\*

With the **P95UB** Power Feed Block as a Center/Middle Feeding Device a maximum input current of **160A/200A per Phase** can be achieved (160A with 18mm<sup>2</sup> Busbar and 200A with 25mm<sup>2</sup> Busbar).

Note: The Power Feed Block can only be used with a standard spacing **3 Phase** UL1077/508 Busbar.



\* For complete specifications and description of Feeding Devices see page 78-79.

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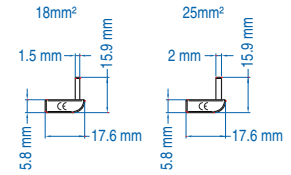
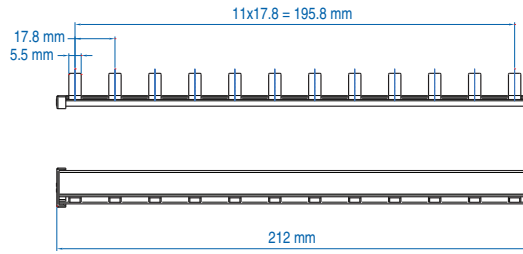
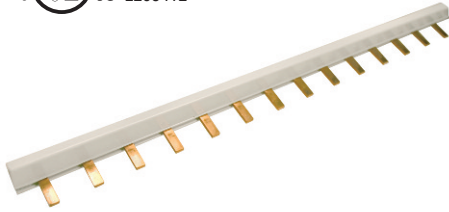
UL 1077  
Equipment Breakers

Earth Leakage  
Circuit Breakers

ANNEX

# 1 PHASE BUSBAR - standard spacing

18mm<sup>2</sup> for 80A



shown: 1P18U1/12

## 18mm<sup>2</sup> for 80A\*

Type/ Cat. No.	No. of Pins	Length [mm]
1P18U1/2	2	32
1P18U1/3	3	54
1P18U1/4	4	79
1P18U1/5	5	88
1P18U1/6	6	106
1P18U1/7	7	122
1P18U1/8	8	140
1P18U1/9	9	158
1P18U1/10	10	177
1P18U1/11	11	195
1P18U1/12	12	212
1P18U1/13	13	230
1P18U1/14	14	248
1P18U1/15	15	269
1P18U1/16	16	286
1P18U1/17	17	304
1P18U1/18	18	322
1P18U1/19	19	340
1P18U1/20	20	354
1P18U1/21	21	374
1P18U1/22	22	392
1P18U1/23	23	410
1P18U1/24	24	428
1P18U1/25	25	446
1P18U1/26	26	464
1P18U1/27	27	482
1P18U1/28	28	500
1P18U1/29	29	518

## 18mm<sup>2</sup> for 80A\*

Type/ Cat. No.	No. of Pins	Length [mm]
1P18U1/30	30	536
1P18U1/31	31	554
1P18U1/32	32	572
1P18U1/33	33	590
1P18U1/34	34	608
1P18U1/35	35	626
1P18U1/36	36	638
1P18U1/37	37	656
1P18U1/38	38	674
1P18U1/39	39	692
1P18U1/40	40	710
1P18U1/41	41	728
1P18U1/42	42	746
1P18U1/43	43	764
1P18U1/44	44	782
1P18U1/45	45	800
1P18U1/46	46	818
1P18U1/47	47	836
1P18U1/48	48	854
1P18U1/49	49	872
1P18U1/50	50	890
1P18U1/51	51	908
1P18U1/52	52	926
1P18U1/53	53	942
1P18U1/54	54	960
1P18U1/55	55	978
1P18U1/56	56	996
1P18U1/57	57	1014

## ACCESSORIES



Type/Cat. No: **P50UT-LP**  
Description: Power Feed Lug



Type/Cat. No: **P50UB**  
Description: Modular Direct Power Feed



Type/Cat. No: **BRB5W**  
Description: Insulation Cap

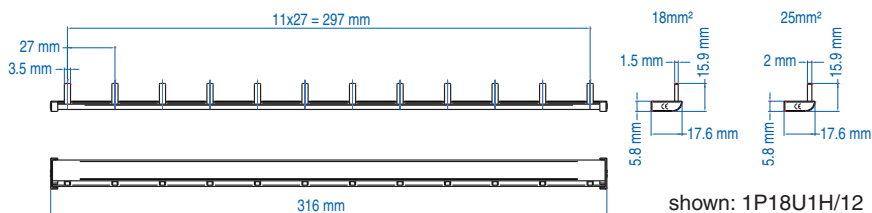
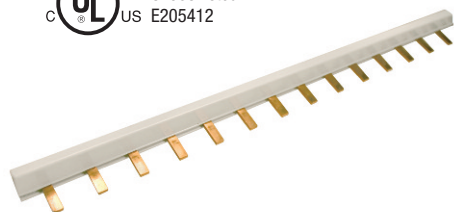


Type/Cat. No: **18/25CAP1P**  
Description: End Cap

\* 25mm<sup>2</sup> version for 100A available upon request.

**1 PHASE BUSBAR - 1/2 pole spacing**

18mm<sup>2</sup> for 80A



shown: 1P18U1H/12

**18mm<sup>2</sup> for 80A\***

Type/ Cat. No.	No. of Pins	Length [mm]
1P18U1H/2	2	40
1P18U1H/3	3	68
1P18U1H/4	4	95
1P18U1H/5	5	122
1P18U1H/6	6	150
1P18U1H/7	7	176
1P18U1H/8	8	204
1P18U1H/9	9	230
1P18U1H/10	10	258
1P18U1H/11	11	284
1P18U1H/12	12	316
1P18U1H/13	13	338
1P18U1H/14	14	365
1P18U1H/15	15	392
1P18U1H/16	16	420
1P18U1H/17	17	446
1P18U1H/18	18	474
1P18U1H/19	19	500

**18mm<sup>2</sup> for 80A\***

Type/ Cat. No.	No. of Pins	Length [mm]
1P18U1H/20	20	528
1P18U1H/21	21	554
1P18U1H/22	22	582
1P18U1H/23	23	608
1P18U1H/24	24	635
1P18U1H/25	25	662
1P18U1H/26	26	690
1P18U1H/27	27	716
1P18U1H/28	28	744
1P18U1H/29	29	770
1P18U1H/30	30	798
1P18U1H/31	31	824
1P18U1H/32	32	852
1P18U1H/33	33	878
1P18U1H/34	34	905
1P18U1H/35	35	932
1P18U1H/36	36	960

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**ACCESSORIES**



Type/Cat. No:	P50UT-LP	P50UB	BRB5W	18/25CAP1P
Description:	Power Feed Lug	Modular Direct Power Feed	Insulation Cap	End Cap

\* 25mm<sup>2</sup> version for 100A available upon request.

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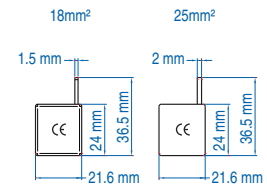
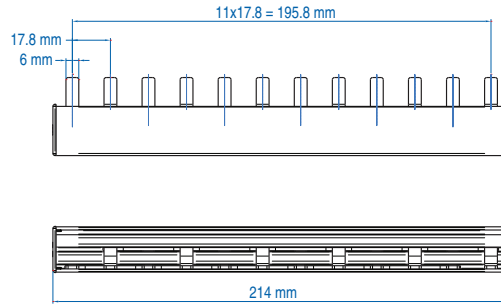
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Equipment BreakersEarth Leakage  
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ANNEX

## 2 PHASE BUSBAR - standard spacing

18mm<sup>2</sup> for 80A / 25mm<sup>2</sup> for 100A



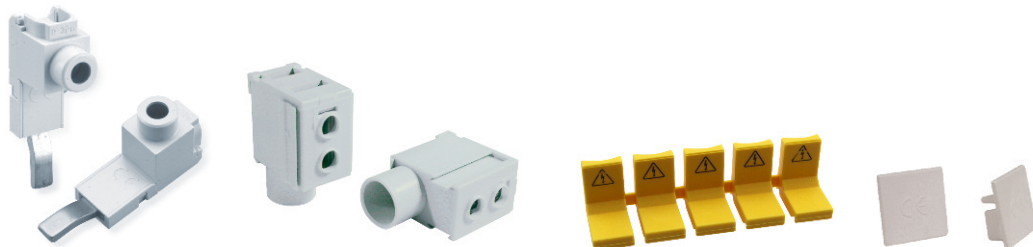
shown: 2P18U3/12

### 18mm<sup>2</sup> for 80A

### 25mm<sup>2</sup> for 100A

Type/ Cat. No.	No. of Pins	Length [mm]	Type/ Cat. No.	No. of Pins	Length [mm]
2P18U3/4	4	69	2P25U3/4	4	69
2P18U3/6	6	104	2P25U3/6	6	104
2P18U3/8	8	140	2P25U3/8	8	140
2P18U3/10	10	177	2P25U3/10	10	177
2P18U3/12	12	214	2P25U3/12	12	214
2P18U3/14	14	249	2P25U3/14	14	249
2P18U3/16	16	283	2P25U3/16	16	283
2P18U3/18	18	319	2P25U3/18	18	319
2P18U3/20	20	357	2P25U3/20	20	357
2P18U3/22	22	390	2P25U3/22	22	390
2P18U3/24	24	426	2P25U3/24	24	426
2P18U3/26	26	460	2P25U3/26	26	460
2P18U3/28	28	498	2P25U3/28	28	498
2P18U3/30	30	532	2P25U3/30	30	532
2P18U3/32	32	568	2P25U3/32	32	568
2P18U3/34	34	604	2P25U3/34	34	604
2P18U3/36	36	640	2P25U3/36	36	640
2P18U3/38	38	675	2P25U3/38	38	675
2P18U3/40	40	710	2P25U3/40	40	710
2P18U3/42	42	746	2P25U3/42	42	746
2P18U3/44	44	782	2P25U3/44	44	782
2P18U3/46	46	818	2P25U3/46	46	818
2P18U3/48	48	854	2P25U3/48	48	854
2P18U3/50	50	888	2P25U3/50	50	888
2P18U3/52	52	924	2P25U3/52	52	924
2P18U3/54	54	960	2P25U3/54	54	960
2P18U3/56	56	994	2P25U3/56	56	994

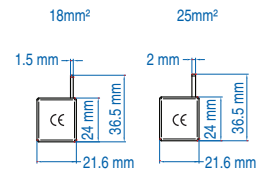
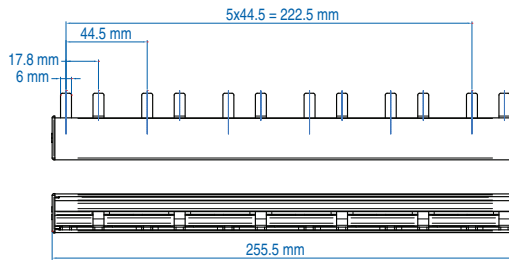
## ACCESSORIES



Type/Cat. No:	P50UT	P50UB	BRB5W	18/25CAP3P
Description:	Power Feed Lug	Modular Direct Power Feed	Insulation Cap	End Cap

**2 PHASE BUSBAR - 1/2 pole spacing**

18mm<sup>2</sup> for 80A / 25mm<sup>2</sup> for 100A



shown: 2P18U3H/12

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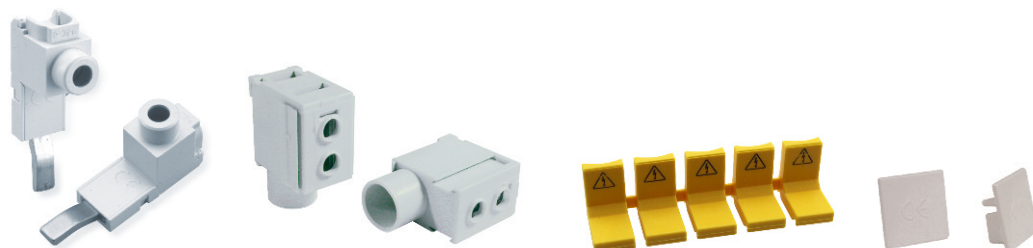
ANNEX

**18mm<sup>2</sup> for 80A**

**25mm<sup>2</sup> for 100A**

Type/ Cat. No.	No. of Pins	Length [mm]	Type/ Cat. No.	No. of Pins	Length [mm]
2P18U3H/4	4	78	2P25U3H/4	4	78
2P18U3H/6	6	124	2P25U3H/6	6	124
2P18U3H/8	8	168	2P25U3H/8	8	168
2P18U3H/10	10	212	2P25U3H/10	10	212
2P18U3H/12	12	256	2P25U3H/12	12	256
2P18U3H/14	14	302	2P25U3H/14	14	302
2P18U3H/16	16	346	2P25U3H/16	16	346
2P18U3H/18	18	390	2P25U3H/18	18	390
2P18U3H/20	20	435	2P25U3H/20	20	435
2P18U3H/22	22	480	2P25U3H/22	22	480
2P18U3H/24	24	524	2P25U3H/24	24	524
2P18U3H/26	26	568	2P25U3H/26	26	568
2P18U3H/28	28	612	2P25U3H/28	28	612
2P18U3H/30	30	658	2P25U3H/30	30	658
2P18U3H/32	32	702	2P25U3H/32	32	702
2P18U3H/34	34	746	2P25U3H/34	34	746
2P18U3H/36	36	790	2P25U3H/36	36	790
2P18U3H/38	38	835	2P25U3H/38	38	835
2P18U3H/40	40	880	2P25U3H/40	40	880
2P18U3H/42	42	924	2P25U3H/42	42	924
2P18U3H/44	44	968	2P25U3H/44	44	968
2P18U3H/46	46	1012	2P25U3H/46	46	1012
2P18U3H/48	48	1058	2P25U3H/48	48	1058
2P18U3H/50	50	1102	2P25U3H/50	50	1102
2P18U3H/52	52	1146	2P25U3H/52	52	1146
2P18U3H/54	54	1192	2P25U3H/54	54	1192
2P18U3H/56	56	1235	2P25U3H/63	56	1235

**ACCESSORIES**



Type/Cat. No:	P50UT	P50UB	BRB5W	18/25CAP3P
Description:	Power Feed Lug	Modular Direct Power Feed	Insulation Cap	End Cap

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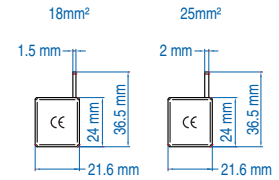
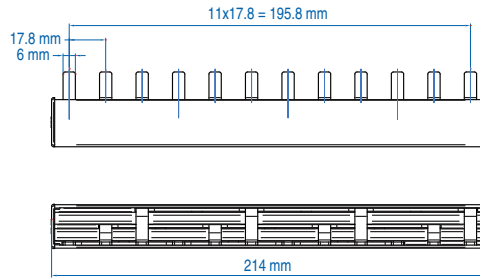
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Circuit Breakers

ANNEX

## 3 PHASE BUSBAR - standard spacing

18mm<sup>2</sup> for 80A / 25mm<sup>2</sup> for 100A

shown: 3P18U3/12

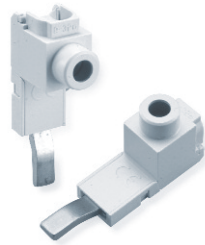
### 18mm<sup>2</sup> for 80A

Type/ Cat. No.	No. of Pins	Length [mm]
3P18U3/6	6	104
3P18U3/9	9	159
3P18U3/12	12	214
3P18U3/15	15	266
3P18U3/18	18	318
3P18U3/21	21	374
3P18U3/24	24	427
3P18U3/27	27	481
3P18U3/30	30	545
3P18U3/33	33	586
3P18U3/36	36	639
3P18U3/39	39	692
3P18U3/42	42	746
3P18U3/45	45	800
3P18U3/48	48	854
3P18U3/51	51	906
3P18U3/54	54	960
3P18U3/57	57	1012

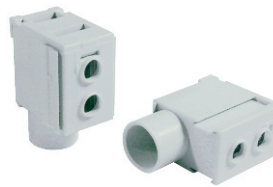
### 25mm<sup>2</sup> for 100A

Type/ Cat. No.	No. of Pins	Length [mm]
3P25U3/6	6	104
3P25U3/9	9	159
3P25U3/12	12	214
3P25U3/15	15	266
3P25U3/18	18	318
3P25U3/21	21	374
3P25U3/24	24	427
3P25U3/27	27	481
3P25U3/30	30	545
3P25U3/33	33	586
3P25U3/36	36	639
3P25U3/39	39	692
3P25U3/42	42	746
3P25U3/45	45	800
3P25U3/48	48	854
3P25U3/51	51	906
3P25U3/54	54	960
3P25U3/57	57	1012

## ACCESSORIES



Type/Cat. No: **P50UT**  
Description: Power Feed Lug



Type/Cat. No: **P50UB**  
Description: Modular Direct Power Feed



Type/Cat. No: **P95UB**  
Description: Power Feed Block



Type/Cat. No: **BRB5W**  
Description: Insulation Cap

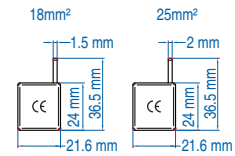
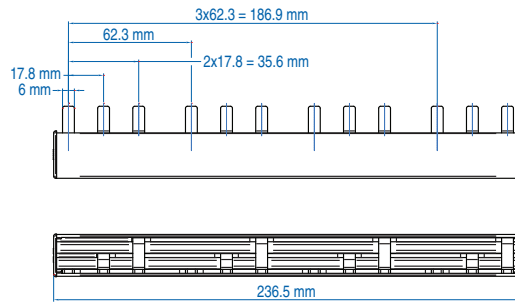


Type/Cat. No: **18/25CAP3P**  
Description: End Cap



**3 PHASE BUSBAR - 1/2 pole spacing**

18mm<sup>2</sup> for 80A / 25mm<sup>2</sup> for 100A



shown: 3P18U3H/12

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Equipment Breakers

Earth Leakage  
Circuit Breakers

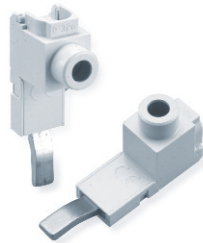
ANNEX

**18mm<sup>2</sup> for 80A**

**25mm<sup>2</sup> for 100A**

Type/ Cat. No.	No. of Pins	Length [mm]	Type/ Cat. No.	No. of Pins	Length [mm]
3P18U3H/6	6	114	3P25U3H/6	6	114
3P18U3H/9	9	176	3P25U3H/9	9	176
3P18U3H/12	12	235	3P25U3H/12	12	235
3P18U3H/15	15	302	3P25U3H/15	15	302
3P18U3H/18	18	364	3P25U3H/18	18	364
3P18U3H/21	21	426	3P25U3H/21	21	426
3P18U3H/24	24	488	3P25U3H/24	24	488
3P18U3H/27	27	550	3P25U3H/27	27	550
3P18U3H/30	30	612	3P25U3H/30	30	612
3P18U3H/33	33	675	3P25U3H/33	33	675
3P18U3H/36	36	738	3P25U3H/36	36	738
3P18U3H/39	39	800	3P25U3H/39	39	800
3P18U3H/42	42	862	3P25U3H/42	42	862
3P18U3H/45	45	924	3P25U3H/45	45	924
3P18U3H/48	48	982	3P25U3H/48	48	982
3P18U3H/51	51	1048	3P25U3H/51	51	1048
3P18U3H/54	54	1112	3P25U3H/54	54	1112
3P18U3H/57	57	1174	3P25U3H/57	57	1174

**ACCESSORIES**



Type/Cat. No: **P50UT**  
Description: Power Feed Lug



Type/Cat. No: **P50UB**  
Description: Modular Direct Power Feed



Type/Cat. No: **BRB5W**  
Description: Insulation Cap



Type/Cat. No: **18/25CAP3P**  
Description: End Cap

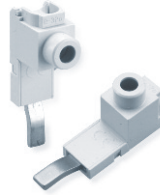
## Power Feed Devices

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

### Power Feed Lug



### Power Feed Lug

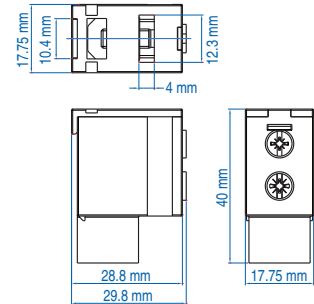
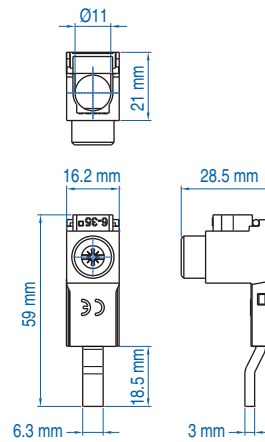
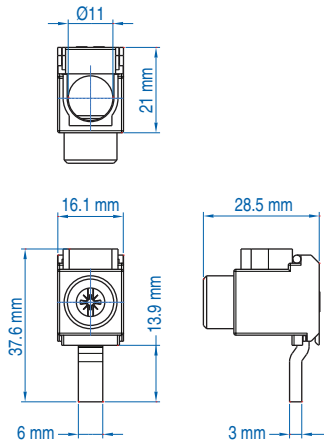


### Modular Direct Power Feed

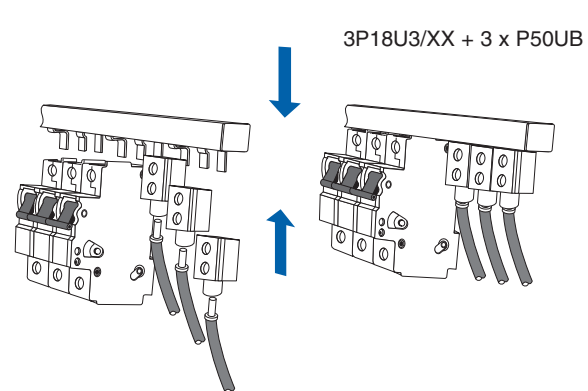
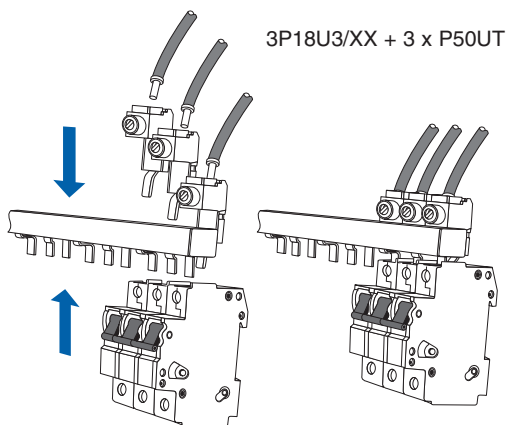


Type/Cat. No.	P50UT-LP	P50UT	P50UB
Electrical Ratings	115A/1000V AC/DC	115A/1000V AC/DC	115A/1000V AC/DC
Wire Range	10-1/0 AWG Cu	10-1/0 AWG Cu	14-1 AWG Cu
Wire Temperature Rating	60°C	60°C	75°C
Recommended/ Required Torque	5.6Nm (50lb. in.)	5.6Nm (50lb. in.)	Cable Side 3.5Nm/31 lb. in. (14-6AWG) 4Nm/35.4 lb. in. (4-1AWG) Busbar Side 2.5Nm/22 lb. in.
Material of Lug/ Terminal	Brass	Brass	Brass
Insulation Material	Polyamide	Polyamide	Polyamide
For use with	UL1077/508 18 and 25mm <sup>2</sup> 1 phase busbars	UL1077/508 18 and 25mm <sup>2</sup> 2, 3 phase busbars	UL1077/508 18 and 25mm <sup>2</sup> 1, 2, 3 phase busbars

## Dimensions



## Assembly Instructions



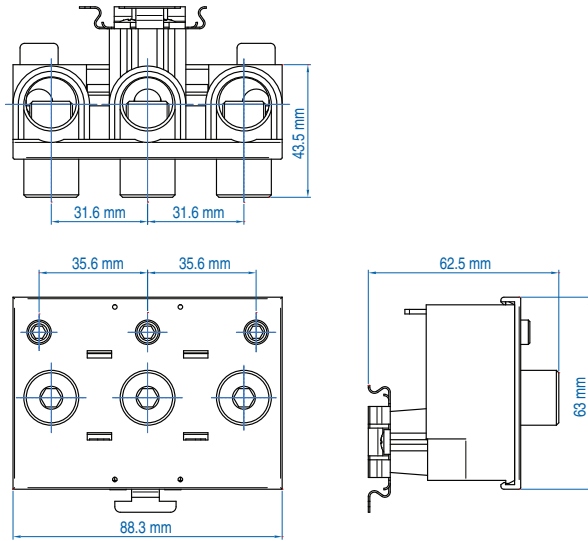
The power feed lugs (Cat. # P50UT) fit together with the lugs of the busbar in the terminals of the connected device.

**Power Feed Block**

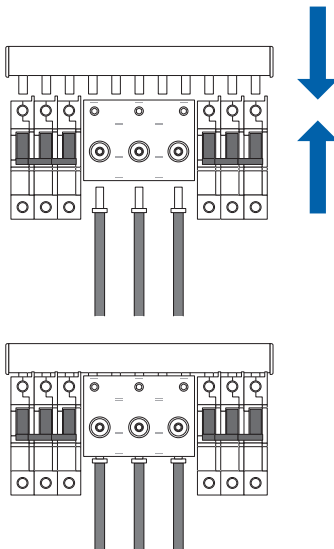


<b>Type/Cat. No.</b>	<b>P95UB</b>
<b>Electrical Ratings</b>	200A/ 600V AC/DC
<b>Wire Range</b>	1-4/0 AWG Cu
<b>Wire Temperature Rating</b>	75°C
<b>Recommended/ Required Torque</b>	19.5Nm (175lb. in.)
<b>Material of Lug/ Terminal</b>	Brass
<b>Insulation Material</b>	Polyamide
<b>For use with</b>	UL1077/508 18 and 25mm <sup>2</sup> 3 phase busbars (standard spacing only)

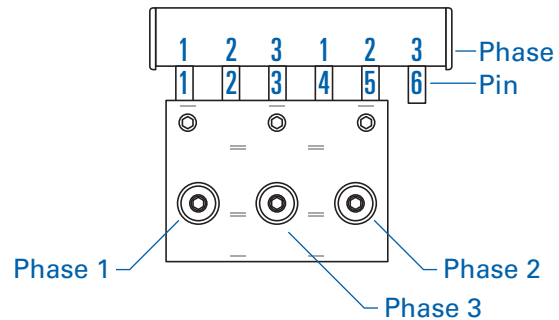
**Dimensions**



**Assembly Instructions**



NOTE: The Power Feed Block uses the space of 5 Pins of the standard spacing Busbar (see drawing below). Phase 1 connects to Pin 1, Phase 2 to Pin 3 and Phase 3 to Pin 5. Pin 2 and 4 are not in use. Pin 6 should be covered with an insulation cap if phase sequence stays the same. Therefore, the Power Feed Block covers 6 pins to connect to the three phases.

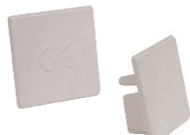


**Miscellaneous Accessories**

**End Caps**



18/25CAP1P



18/25CAP3P

**Type/Cat. No:** 18/25CAP1P  
**For use with:** 18/25mm<sup>2</sup> 1 phase Busbar

**Type/Cat. No:** 18/25CAP3P  
**For use with:** 18/25mm<sup>2</sup> 2, 3 phase Busbar

**Insulation Caps**



**Type/Cat. No:** BRB5W (5 per strip)  
**For use with:** 18/25mm<sup>2</sup> 1, 2, 3 phase Busbar

UL 489

UL 508

UL 1077

UL 1077  
Equipment Breakers

Earth Leakage  
Circuit Breakers

ANNEX