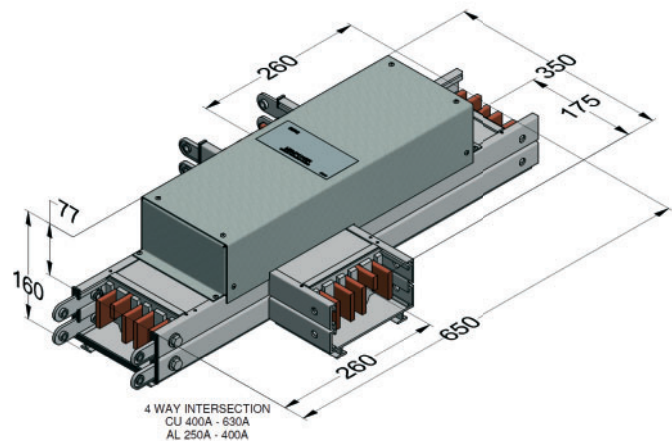


## MP range 125 - 800 A, feed units, dimensional drawings

### MP Cu & Alu 4way Intersection

Cu	
400 A to 630 A	650 mm x 350 mm
Alu	
250 A	650 mm x 350 mm

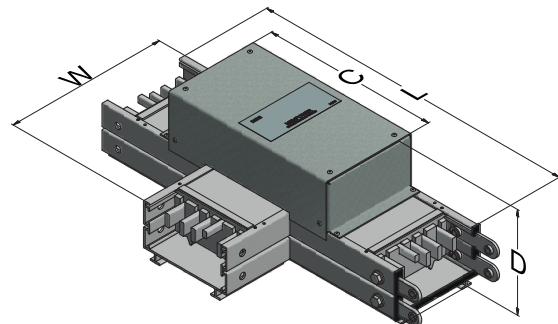


### MP Cu & Alu, Flat Tee

Alu	Dim C	Dim D	Dim L	Dim W
160 A	-	50 mm	350 mm	250 mm
250 A	275 mm	160 mm	500 mm	250 mm
400 A	275 mm	160 mm	500 mm	250 mm
630 A	610 mm	145 +(55) mm	1180 mm	815 +(80) mm

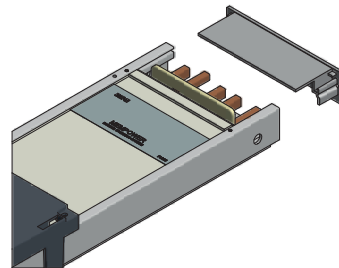
  

Cu	Dim C	Dim D	Dim L	Dim W
125 A	-	50 mm	350 mm	250 mm
160 A	-	50 mm	350 mm	250 mm
250 A	-	50 mm	350 mm	250 mm
400 A	275 mm	160 mm	500 mm	250 mm
630 A	275 mm	160 mm	500 mm	250 mm
800 A	610 mm	145 +(55) mm	1180 mm	815 +(80) mm



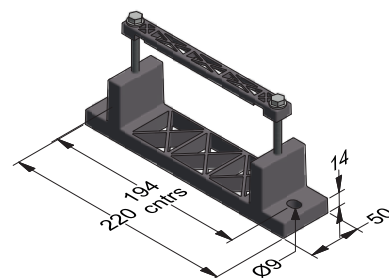
### MP Cu & Alu, End Cover

All ratings



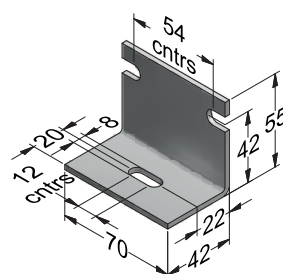
### MP Cu & Alu, Universal Fixing Bracket

All ratings



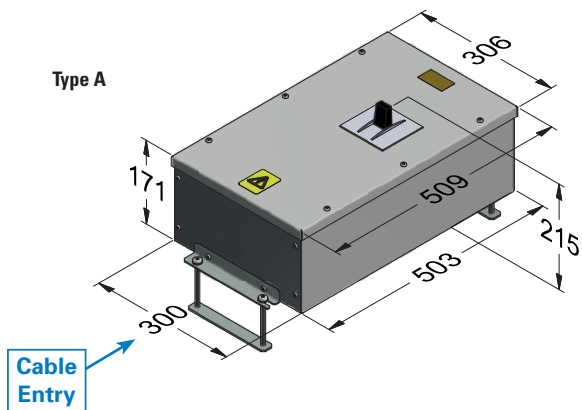
### MP Cu & Alu, Riser Fixing Bracket

All ratings

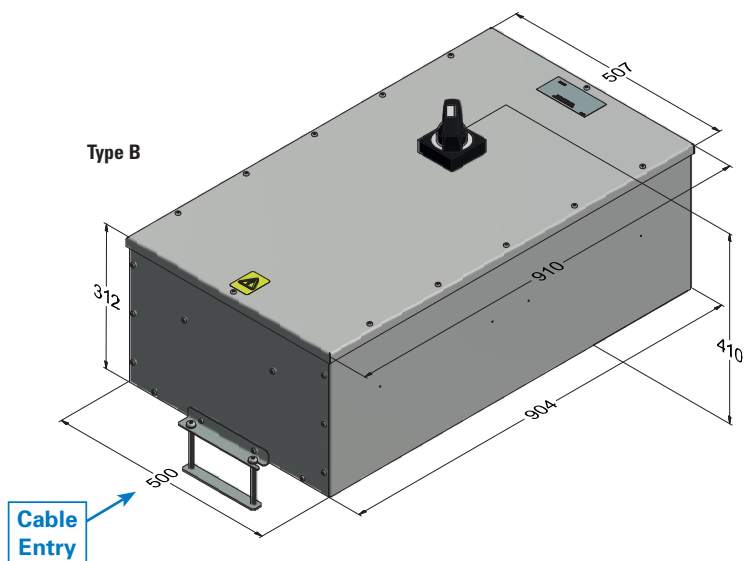


## MP range 125 - 800 A, tap-off units, dimensional drawings

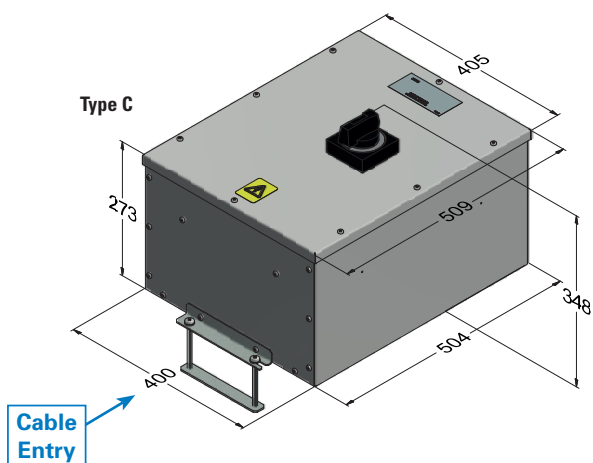
Type A



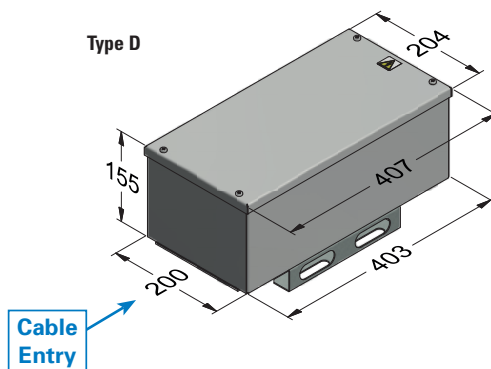
Type B



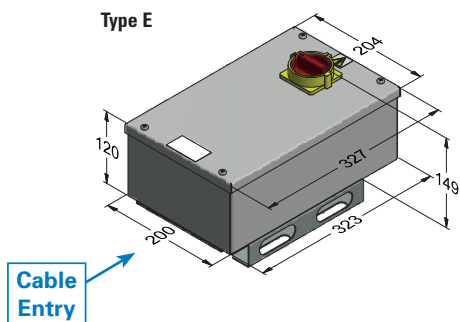
Type C



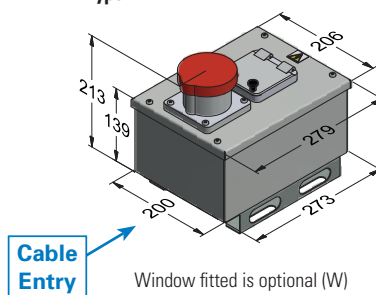
Type D



Type E



Type F



## MP aluminium busbar rated values 160 - 630 A

Description	160 A	250 A	400 A	630 A
Standards	BSEN 61439-6, EN 61439-6, IEC 61439-6			
Rated current	160 A	250 A	400 A	630 A
This is the maximum current per pole. Single-phase tap-off units must be evenly distributed across the poles so as not to exceed the current rating in one pole or the neutral.				
Rated insulation voltage (Ui)	690 Vac	690 Vac	690 Vac	690 Vac
This is a.c. voltage that the trunking system is designed for and is the maximum 3-phase voltage that trunking system is designed to operate at, in service.				
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz
Phase resistance R20 [ $\Omega$ /m]	0.000467	0.000238	0.000127	0.000099
This is the resistance R20 (at 20°C) of the conductor of each phase pole and the neutral and is used in the calculation of fault current, earth-loop impedance and voltage drop.				
Phase resistance R [ $\Omega$ /m]	0.000616	0.000312	0.000172	0.000145
This is the resistance R at full-load operating temperature (at an ambient air temperature of 35°C) of the conductor of each phase pole and the neutral and is used in the calculation of earth-loop impedance where required by wiring regulations.				
Phase reactance 50 Hz [ $\Omega$ /m]	0.000159	0.000128	0.000090	0.000082
This is the inductive reactance X of each phase pole and the neutral and is used in the calculation of fault current, volt-drop and circuit impedance.				
Volt-drop [V/A/m]				
– Unity pf	0.0010669	0.0005404	0.0002979	0.0002511
– 0.9 pf	0.0010803	0.0005830	0.0003361	0.0002879
– 0.8 pf	0.0010188	0.0005653	0.0003319	0.0002861
– 0.7 pf	0.0009435	0.0005366	0.0003199	0.0002772
This figure allows an estimate to be made of the voltage drop along a run. This is the phase-to-phase voltage drop per ampere of load, along a 1 m run without tap-offs. When loaded with tap-off units evenly distributed along the run the figures are multiplied by 0.55. Note that it is advisable to check the actual voltage drop on the completed installation.				
Overload current protection				
Rated current of fuses or circuit breaker (A)	160	250	400	630
Fault current protection (S/C)				
– 3 Phase fused short circuit current Icf [kA]	80	80	80	80
– 3 Phase 1-second short-time withstand current Icw [kA]	8.6	11.5	16.5	21.5
– 3 Phase Peak current withstand [kA]	14.6	23	33	43
– 1 Phase fused short circuit current Icf Ph-N & Ph-E [kA]	48	48	48	48
– 1 Phase 1-second short-time withstand current Icw [kA]	5.2	6.9	9.9	12.9
– 1 Phase Peak current withstand [kA]	8.8	11.7	16.8	25.8
The short-time current and time together with the peak withstand current allow determination of circuit-breaker characteristics required for S/C protection.				
Weight of trunking (TPN + E + Case earth + joint) [Kg/m]	4.4	6.4	8.3	9.2
Degree of protection to BSEN 60529	IP4X or IP54			
Trunking Size W x D [mm]:				
a) trunking	142 x 48	142 x 82	142 x 82	142 x 82
b) overall including joint covers	148 x 67	148 x 101	148 x 101	148 x 101

## MP copper busbar rated values 125 - 800 A

Description	125 A	160 A	250 A	400 A	630 A	800 A
Standards	BSEN 60439-2, EN 60439-2, IEC 60439-2					
Rated current	125 A	160 A	250 A	400 A	630 A	800 A
This is the maximum current per pole. Single-phase tap-off units must be evenly distributed across the poles so as not to exceed the current rating in one pole or the neutral.						
Rated insulation voltage (Ui)	690 Vac	690 Vac	690 Vac	690 Vac	690 Vac	690 Vac
This is a.c. voltage that the trunking system is designed for and is the maximum 3-phase voltage that trunking system is designed to operate at in service.						
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Phase resistance R20 [ $\Omega$ /m]	0.00079	0.00038	0.00027	0.00014	0.0000713	0.0000596
This is the resistance R20 (at 20°C) of the conductor of each phase pole and the neutral and is used in the calculation of fault current, earth-loop impedance and voltage drop.						
Phase resistance Rt [ $\Omega$ /m]	0.000799	0.000468	0.00036	0.000195	0.00011	0.000088
This is the resistance Rt at full-load operating temperature of the conductor of each phase pole and the neutral and is used in the calculation of earth-loop impedance where required by wiring regulations.						
Phase reactance 50 Hz [ $\Omega$ /m]	0.000185	0.000159	0.000148	0.000127	0.0000937	0.000082
This is the inductive reactance X of each phase pole and the neutral and is used in the calculation of fault current, volt-drop and circuit impedance						
PE resistance (at 20°C)						
Internal Copper bar [ $\Omega$ /m]	0.00079	0.00079	0.00038	0.00027	0.00014	0.0000713
The PE resistance and reactance are used in the calculation of the fault level to earth.						
Fault-loop resistance of Phase to N [ $\Omega$ /m]	0.00257	0.00149	0.00102	0.00051	0.00029	0.00025
Fault-loop reactance of Phase to N [ $\Omega$ /m]	0.00065	0.00049	0.00044	0.00034	0.00021	0.00020
Fault-loop resistance of Phase to case PE [ $\Omega$ /m]	0.00258	0.00231	0.00136	0.00090	0.00050	0.00031
Fault-loop reactance of Phase to case PE [ $\Omega$ /m]	0.00065	0.00058	0.00049	0.00051	0.00034	0.00025
These fault-loop values permit calculations of short circuit and fault currents in every point of an electrical installation including the busbar trunking system.						
Volt-drop [V/A/m]						
– Unity pf	0.0013839	0.0008106	0.0006235	0.0003377	0.0001905	0.0001524
– 0.9 pf	0.0013852	0.0008496	0.0006729	0.0003999	0.0002422	0.0001991
– 0.8 pf	0.0012994	0.0008137	0.0006526	0.0004022	0.0002498	0.0002072
– 0.7 pf	0.0011976	0.0007641	0.0006195	0.0003935	0.0002493	0.0002081
This figure allows an estimate to be made of the voltage drop along a run. This is the phase-to-phase voltage drop per ampere of load, along a 1 m run without tap-offs. When loaded with tap-off units evenly distributed along the run the figures are multiplied by 0.55. Note that it is advisable to check the actual voltage drop on the completed installation.						
Overload current protection						
Rated current of fuses or circuit breaker (A)	125	160	250	400	630	800
Fault current protection (S/C)						
– Rated fused short circuit current Icf [kA]	80	80	80	80	80	80
– Rated 1-second short-time withstand current Icw [kA]	5.1	8.6	11.5	16.5	21.5	25
– Peak current withstand [kA]	8.7	14.6	23	35	45.1	52.5
The short-time current and time together with the peak withstand current allow determination of circuit-breaker characteristics required for S/C protection.						
Weight of trunking [Kg/m]						
4-bar distribution (TP&N + case earth + joint)	4.4	5.0	6.0	9.3	14.0	20.0
Degree of protection to BSEN 60529	IP4X or IP54					
Trunking Size W x D [mm]:						
a) trunking	142 x 48	142 x 48	142 x 48	142 x 82	142 x 82	142 x 82
b) overall including joint covers	148 x 67	148 x 67	148 x 67	148 x 101	148 x 101	148 x 101

## XP Aluminium busbar rated values 800 - 4000 A

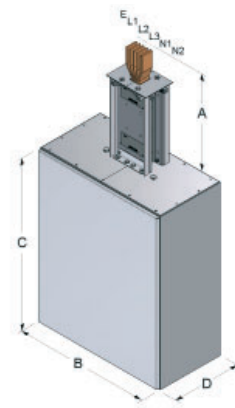
Description	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A
Standards	BSEN 61439-6, EN 61439-6, IEC 61439-6							
Rated current	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A
This is the maximum current per pole. Single-phase tap-off units must be evenly distributed across the poles so as not to exceed the current rating in one pole or the neutral.								
Rated insulation voltage (Ui)	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac
This is a.c. voltage that the trunking system is designed for and is the maximum 3-phase voltage that trunking system is designed to operate at in service.								
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Phase resistance R20 [ $\Omega$ /m]	0.0000837	0.0000595	0.0000483	0.0000339	0.0000296	0.0000227	0.0000168	0.0000139
This is the resistance R20 (at 20°C) of the conductor of each phase pole and the neutral and is used in the calculation of fault current, earth-loop impedance and voltage drop.								
Phase resistance R [ $\Omega$ /m]	0.00011	0.0000793	0.0000601	0.000047	0.0000389	0.0000312	0.000027	0.0000185
This is the resistance R at full-load operating temperature (at an ambient air temperature of 35°C) of the conductor of each phase pole and the neutral and is used in the calculation of earth-loop impedance where required by wiring regulations.								
Phase reactance 50 Hz [ $\Omega$ /m]	0.0000259	0.0000179	0.0000147	0.0000097	0.0000083	0.000005	0.0000041	0.0000034
This is the inductive reactance X of each phase pole and the neutral and is used in the calculation of fault current, volt-drop and circuit impedance.								
Volt-drop [V/A/m]								
– Unity pf	0.000190526	0.000137352	0.000104096	0.000081406	0.000067377	0.000054040	0.000046765	0.000032043
– 0.9 pf	0.000191027	0.000137131	0.000104785	0.000080589	0.000066905	0.000052411	0.000045184	0.000031406
– 0.8 pf	0.000179337	0.000128484	0.000098554	0.000075206	0.000062527	0.000048428	0.000041673	0.000029168
– 0.7 pf	0.000165404	0.000118287	0.000091050	0.000068983	0.000057430	0.000044013	0.000037807	0.000026636
This figure allows an estimate to be made of the voltage drop along a run. This is the phase-to-phase voltage drop per ampere of load, along a 1m run without tap-offs. When loaded with tap-off units evenly distributed along the run the figures are multiplied by 0.55.								
Overload current protection								
Rated current of fuses or circuit breaker (A)	800	1000	1250	1600	2000	2500	3200	4000
Fault current protection (S/C)								
– 3 Phase 1-second short-time withstand current I <sub>cw</sub> [kA]	30	55	70	75	90	100	100	100
– 3 Phase peak current withstand [kA]	63	121	154	165	198	220	220	220
– 1 Phase 1-second short-time withstand current I <sub>cw</sub> Ph-N & Ph-E [kA]	18	33	42	45	54	60	60	60
– 1 Phase peak current withstand Ph-N & Ph-E [kA]	36	69	88	95	119	132	132	132
The short-time current and time together with the peak withstand current allow determination of circuit-breaker characteristics required for S/C protection.								
Weight of trunking [Kg/m]								
4-bar distribution (TP&N + case earth + joint)	17.6	20.3	22.6	27.5	31.0	35.9	45.1	52.5
Degree of protection to BSEN 60529	IP55							
Trunking Size W x D [mm]: a) trunking	175 x 140	175 x 170	175 x 200	175 x 235	175 x 275	175 x 340	175 x 410	175 x 490
b) overall including joint covers	226 x 173	226 x 203	226 x 233	226 x 268	226 x 308	226 x 373	226 x 443	226 x 523

**XP Copper busbar rated values 800 - 6300 A**

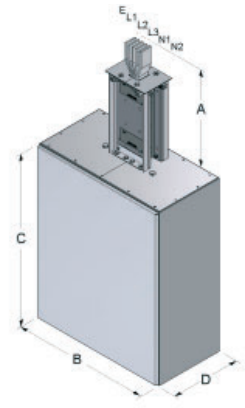
Description	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
Standards	BSEN 61439-6, EN 61439-6, IEC 61439-6									
Rated current	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
This is the maximum current per pole. Single-phase tap-off units must be evenly distributed across the poles so as not to exceed the current rating in one pole or the neutral.										
Rated insulation voltage (Ui)	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac	1000 Vac
This is a.c. voltage that the trunking system is designed for and is the maximum 3-phase voltage that trunking system is designed to operate at in service.										
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Phase resistance R20 [Ω/m]	0.0000531	0.0000386	0.0000308	0.0000228	0.0000174	0.0000133	0.0000120	0.0000087	0.0000074	0.0000050
This is the resistance R20 (at 20°C) of the conductor of each phase pole and the neutral and is used in the calculation of fault current, earth-loop impedance and voltage drop.										
Phase resistance R [Ω/m]	0.0000713	0.0000528	0.0000426	0.0000288	0.0000216	0.0000172	0.0000160	0.0000119	0.0000096	0.0000062
This is the resistance R at full-load operating temperature (at an ambient air temperature of 35°C) of the conductor of each phase pole and the neutral and is used in the calculation of earth-loop impedance where required by wiring regulations.										
Phase reactance 50 Hz [Ω/m]	0.0000213	0.0000182	0.0000146	0.0000117	0.0000081	0.0000070	0.0000031	0.0000052	0.0000041	0.0000027
This is the inductive reactance X of each phase pole and the neutral and is used in the calculation of fault current, volt-drop and circuit impedance.										
Volt-drop [V/A/m]										
– Unity pf	0.0001235	0.0000915	0.0000738	0.0000499	0.0000374	0.0000298	0.0000277	0.0000206	0.0000166	0.0000107
– 0.9 pf	0.0001272	0.0000961	0.0000774	0.0000537	0.0000398	0.0000321	0.0000273	0.0000225	0.0000181	0.0000117
– 0.8 pf	0.0001209	0.0000921	0.0000742	0.0000521	0.0000383	0.0000311	0.0000254	0.0000219	0.0000176	0.0000114
– 0.7 pf	0.0001128	0.0000866	0.0000697	0.0000494	0.0000362	0.0000295	0.0000232	0.0000209	0.0000167	0.0000109
This figure allows an estimate to be made of the voltage drop along a run. This is the phase-to-phase voltage drop per ampere of load, along a 1m run without tap-offs. When loaded with tap-off units evenly distributed along the run the figures are multiplied by 0.55.										
Overload current protection										
Rated current of fuses or circuit breaker (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Fault current protection (S/C)										
– 3 Phase 1-second short-time withstand current I <sub>cw</sub> [kA]	40	40	70	90	100	100	100	100	100	100
– 3 Phase peak current withstand [kA]	84	84	154	198	220	220	220	220	220	220
– 1 Phase 1-second short-time withstand current I <sub>cw</sub> Ph-N & Ph-E [kA]	24	24	42	54	60	60	60	60	60	60
– 1 Phase peak current withstand Ph-N & Ph-E [kA]	50	50	88	119	132	132	132	132	132	132
The short-time current and time together with the peak withstand current allow determination of circuit-breaker characteristics required for S/C protection.										
Weight of trunking [Kg/m]										
4-bar distribution (TP&N + case earth + joint)	23.9	27.1	30.7	43.4	50.8	61.7	74.3	92.0	111.7	176.9
Degree of protection to BSEN 60529	IP55									
Trunking Size W x D [mm]:										
a) trunking*	175 x 125	175 x 140	175 x 155	175 x 200	175 x 235	175 x 275	175 x 340	175 x 410	175 x 490	175 x 701
b) overall including joint covers*	226 x 158	226 x 173	226 x 188	226 x 233	226 x 268	226 x 308	226 x 373	226 x 443	226 x 523	226 x 734

## End feed unit dimensions

Copper end feed	Aluminium end feed	Dim A (Std)	Dim B (Std)	Dim C (Std)	Dim D (Std)
800 A	800 A	500 mm	600 mm	750 mm	300 mm
1000 A	1000 A	500 mm	600 mm	750 mm	300 mm
1250 A	1250 A	500 mm	600 mm	750 mm	300 mm
1600 A	1600 A	500 mm	600 mm	750 mm	300 mm
2000 A	2000 A	500 mm	600 mm	750 mm	300 mm
2500 A	NA	500 mm	600 mm	750 mm	300 mm



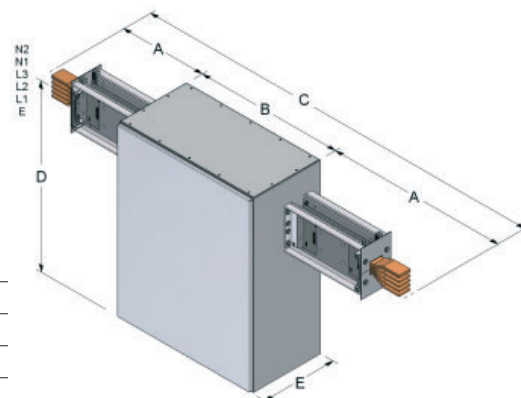
Copper 800 - 2500 A



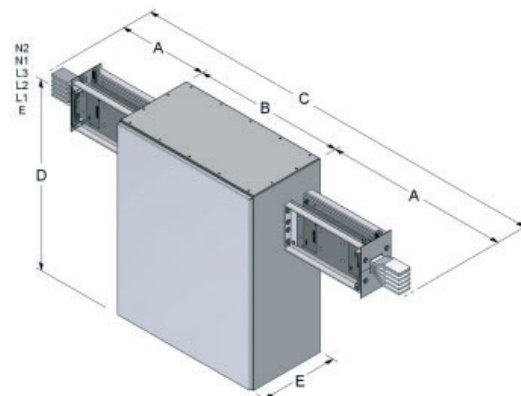
Aluminium 800 - 2000 A

## Centre feed unit dimensions

Copper end feed	Aluminium end feed	Dim A (Std)	Dim B (Std)	Dim C (Std)	Dim D (Std)	Dim E (Std)
800 A	800 A	500 mm	tbc	B+A+A	tbc	tbc
1000 A	1000 A	500 mm	tbc	B+A+A	tbc	tbc
1250 A	1250 A	500 mm	tbc	B+A+A	tbc	tbc
1600 A	1600 A	500 mm	tbc	B+A+A	tbc	tbc
2000 A	2000 A	500 mm	tbc	B+A+A	tbc	tbc
2500 A	NA	500 mm	tbc	B+A+A	tbc	tbc



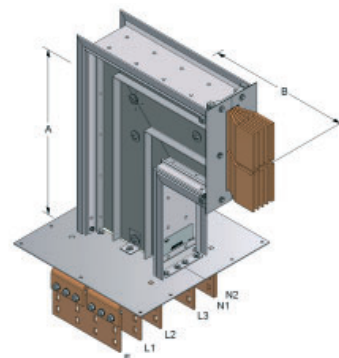
Copper 800 - 2500 A



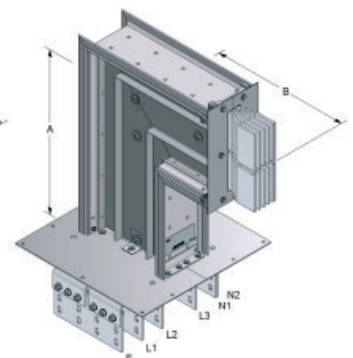
Aluminium 800 - 2000 A

## Edge angle flange unit dimensions

Copper edge angle flange	Aluminium edge angle flange	Dim A (Std)	Dim B (Min)	Dim B (Std)
800 A	800 A	500 mm	300 mm	500 mm
1000 A	1000 A	500 mm	300 mm	500 mm
1250 A	1250 A	500 mm	300 mm	500 mm
1600 A	1600 A	500 mm	325 mm	500 mm
2000 A	2000 A	500 mm	340 mm	500 mm
2500 A	2500 A	500 mm	360 mm	500 mm
3200 A	3200 A	500 mm	400 mm	500 mm
4000 A	4000 A	500 mm	430 mm	500 mm
5000 A	NA	500 mm	470 mm	500 mm
6300 A	NA	750 mm	650 mm	750 mm



Copper 800 - 6300 A

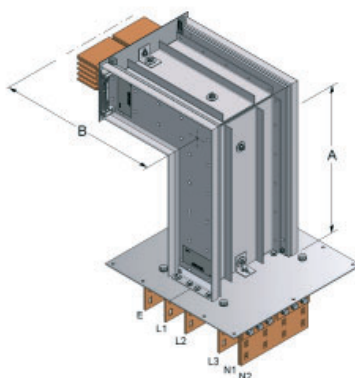


Aluminium 800 - 4000 A

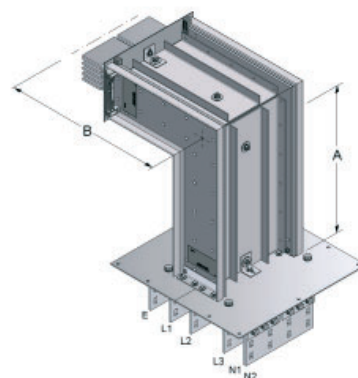


## Flat angle flange unit dimensions

Copper flat angle flange	Aluminium flat angle flange	Dim A (Std)	Dim B (Min)	Dim B (Std)
800 A	800 A	500 mm	340 mm	500 mm
1000 A	1000 A	500 mm	340 mm	500 mm
1250 A	1250 A	500 mm	340 mm	500 mm
1600 A	1600 A	500 mm	340 mm	500 mm
2000 A	2000 A	500 mm	340 mm	500 mm
2500 A	2500 A	500 mm	340 mm	500 mm
3200 A	3200 A	500 mm	340 mm	500 mm
4000 A	4000 A	500 mm	340 mm	500 mm
5000 A	NA	500 mm	340 mm	500 mm
6300 A	NA	750 mm	340 mm	750 mm



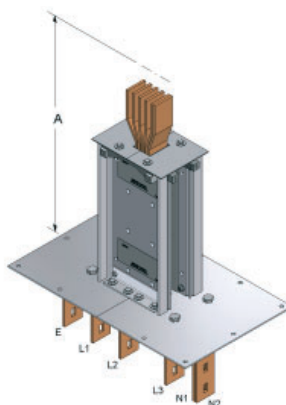
Copper 800 - 6300 A



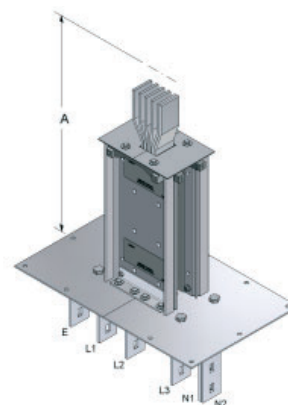
Aluminium 800 - 4000 A

## Flange unit dimensions

Copper flange	Aluminium flange	Dim A (Std)
800 A	800 A	500 mm
1000 A	1000 A	500 mm
1250 A	1250 A	500 mm
1600 A	1600 A	500 mm
2000 A	2000 A	500 mm
2500 A	2500 A	500 mm
3200 A	3200 A	500 mm
4000 A	4000 A	500 mm
5000 A	NA	500 mm
6300 A	NA	500 mm



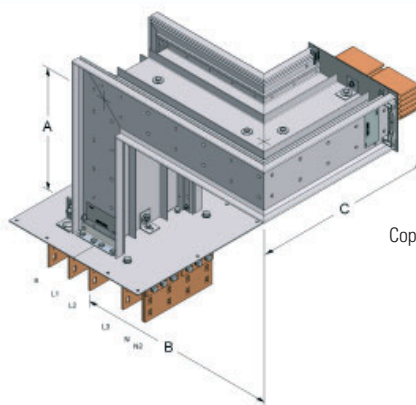
Copper 800 - 6300 A



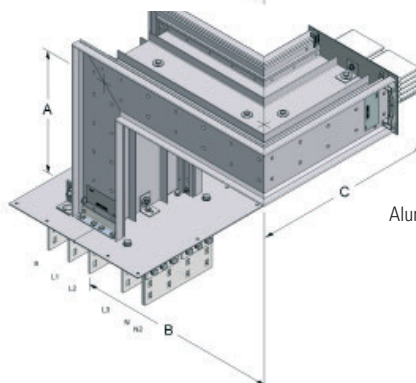
Aluminium 800 - 4000 A

## Combination flange unit dimensions

Copper combination flange	Aluminium combination flange	Dim A (Std)	Dim B (Std)	Dim C (Std)
800 A	800 A	500 mm	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm	500 mm
5000 A	NA	500 mm	500 mm	500 mm
6300 A	NA	750 mm	750 mm	750 mm



Copper 800 - 6300 A

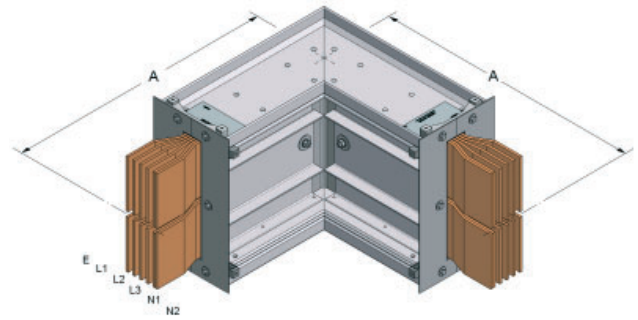


Aluminium 800 - 4000 A

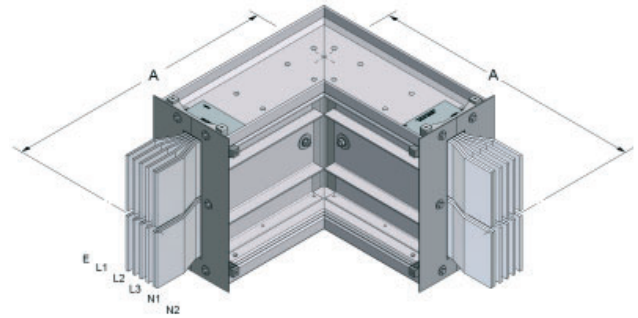


## Flat angle dimensions

Copper flat angle	Aluminium flat angle	Dim A (Std)	Dim B (Std)
800 A	800 A	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm
5000 A	NA	500 mm	500 mm
6300 A	NA	750 mm	750 mm



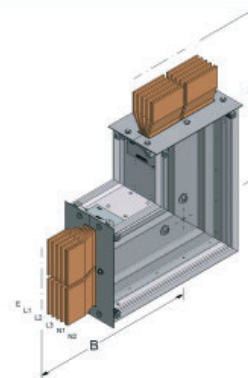
Copper 800 - 6300 A



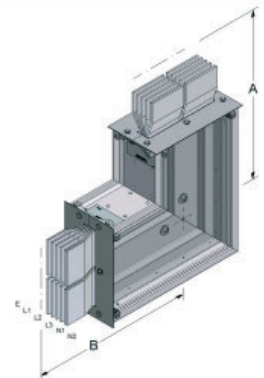
Aluminium 800 - 4000 A

## Edge angle dimensions

Copper edge angle	Aluminium edge angle	Dim A (Std)	Dim B (Std)
800 A	800 A	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm
5000 A	NA	500 mm	500 mm
6300 A	NA	750 mm	750 mm



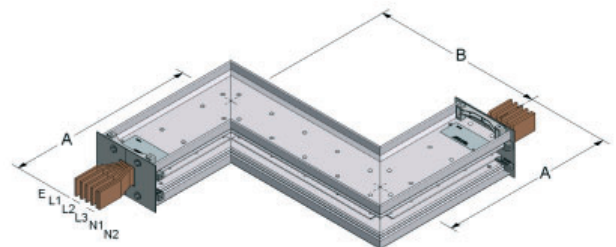
Copper 800 - 6300 A



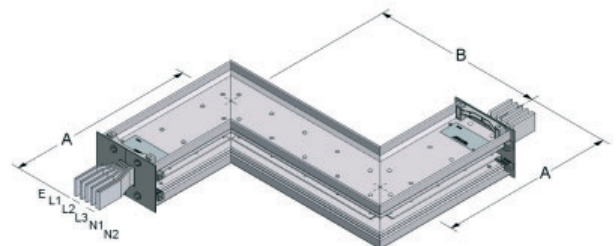
Aluminium 800 - 4000 A

## Flat zed dimensions

Copper flat zed	Aluminium flat zed	Dim A (Std)	Dim B (Std)
800 A	800 A	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm
5000 A	NA	500 mm	500 mm
6300 A	NA	750 mm	750 mm



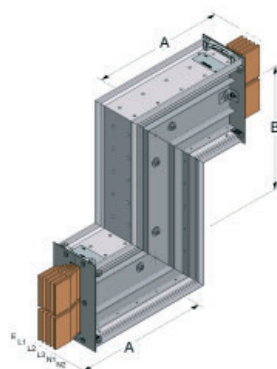
Copper 800 - 6300 A



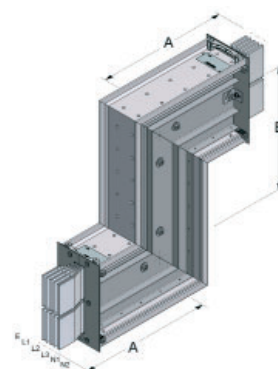
Aluminium 800 - 4000 A

## Edge zed dimensions

Copper edge zed	Aluminium edge zed	Dim A (Std)	Dim B (Std)
800 A	800 A	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm
5000 A	NA	500 mm	500 mm
6300 A	NA	750 mm	750 mm



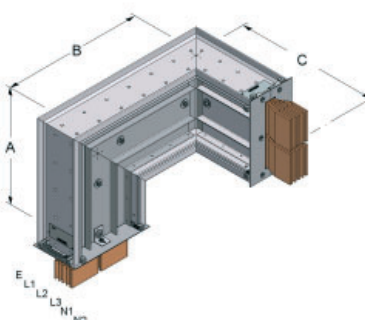
Copper 800 - 6300 A



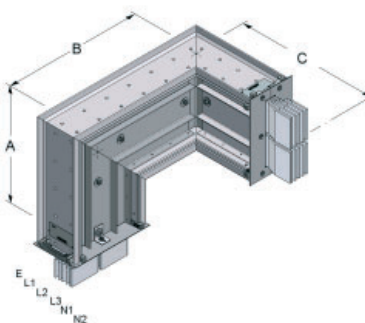
Aluminium 800 - 4000 A

## Combination angle dimensions

Copper combination angle	Aluminium combination angle	Dim A (Std)	Dim B (Std)	Dim C (Std)
800 A	800 A	500 mm	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm	500 mm
5000 A	NA	500 mm	500 mm	500 mm
6300 A	NA	750 mm	750 mm	750 mm



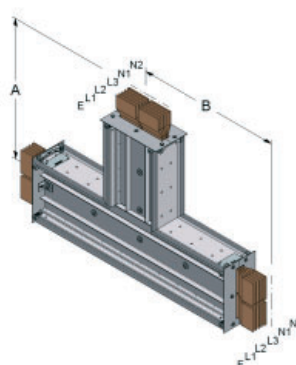
Copper 800 - 6300 A



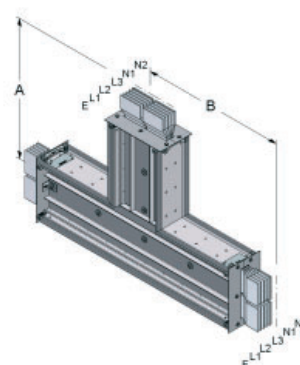
Aluminium 800 - 4000 A

## Edge 'T' dimensions

Copper edge T	Aluminium edge T	Dim A (Std)	Dim B (Std)
800 A	800 A	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm
5000 A	NA	500 mm	500 mm
6300 A	NA	750 mm	750 mm



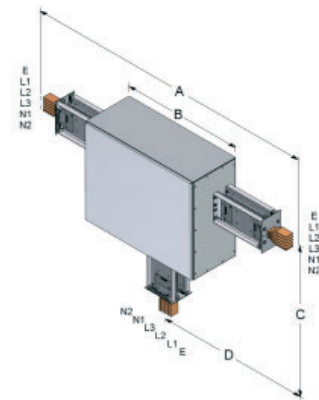
Copper 800 - 6300 A



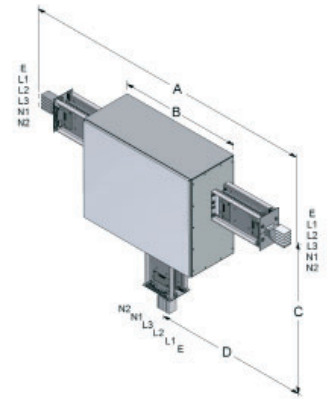
Aluminium 800 - 4000 A

## Flat 'T' dimensions

Copper flat 'T'	Aluminium flat 'T'	Dim A (Std)	Dim B (Std)	Dim C (Std)
800 A	800 A	500 mm	500 mm	500 mm
1000 A	1000 A	500 mm	500 mm	500 mm
1250 A	1250 A	500 mm	500 mm	500 mm
1600 A	1600 A	500 mm	500 mm	500 mm
2000 A	2000 A	500 mm	500 mm	500 mm
2500 A	2500 A	500 mm	500 mm	500 mm
3200 A	3200 A	500 mm	500 mm	500 mm
4000 A	4000 A	500 mm	500 mm	500 mm
5000 A	NA	500 mm	500 mm	500 mm
6300 A	NA	750 mm	750 mm	750 mm



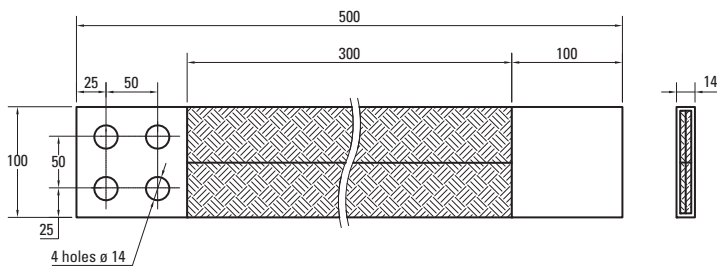
Copper 800 - 6300 A



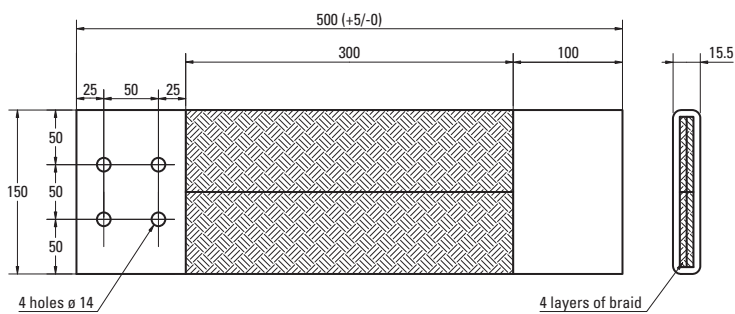
Aluminium 800 - 4000 A

## Transformer Braided Connections dimensions

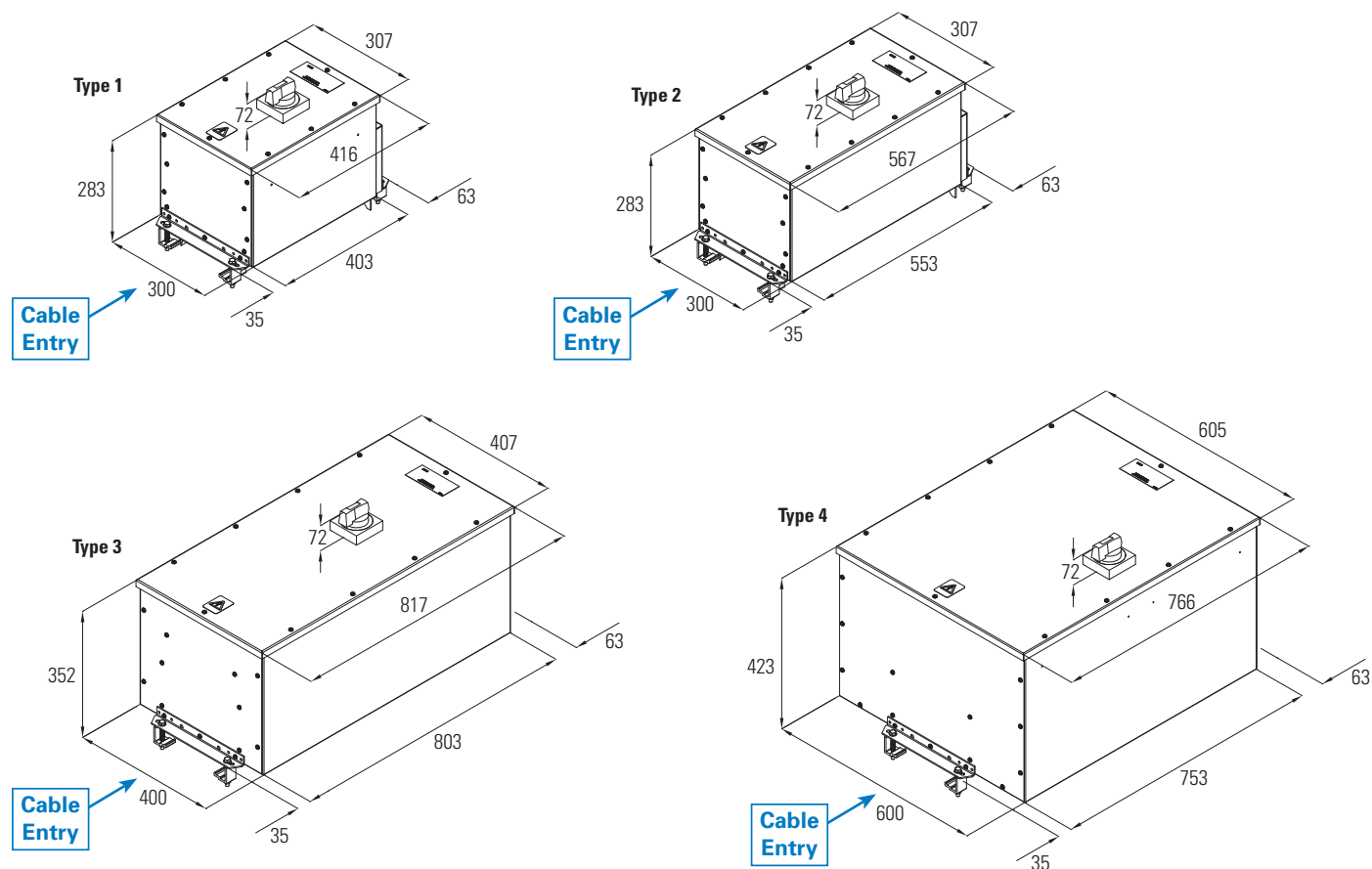
### PCN1355



### PCN1356

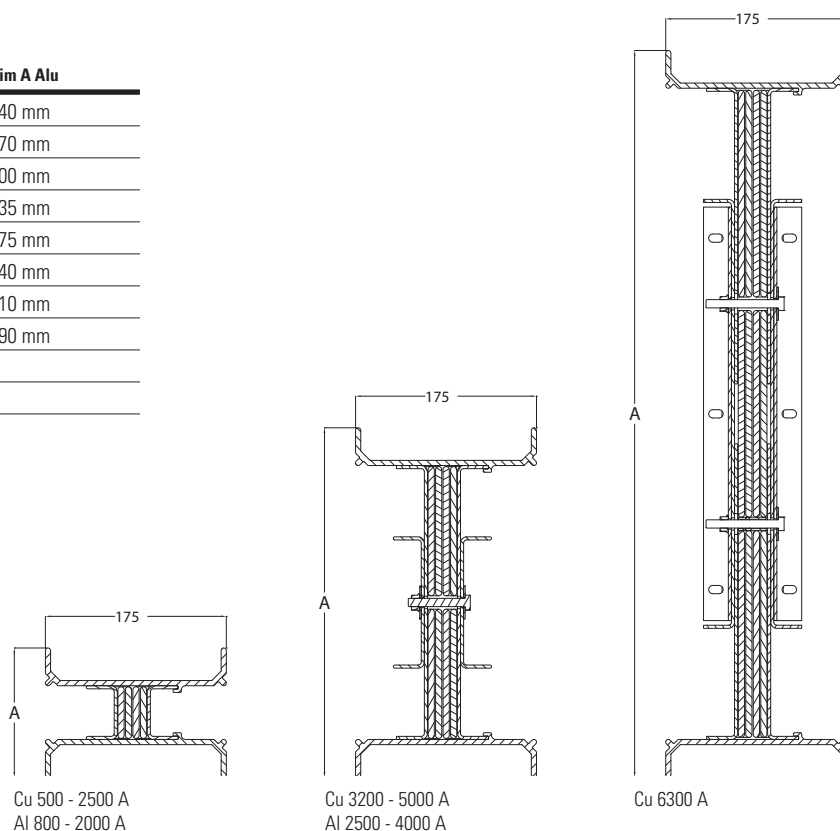


## XP tap-off dimensional drawings

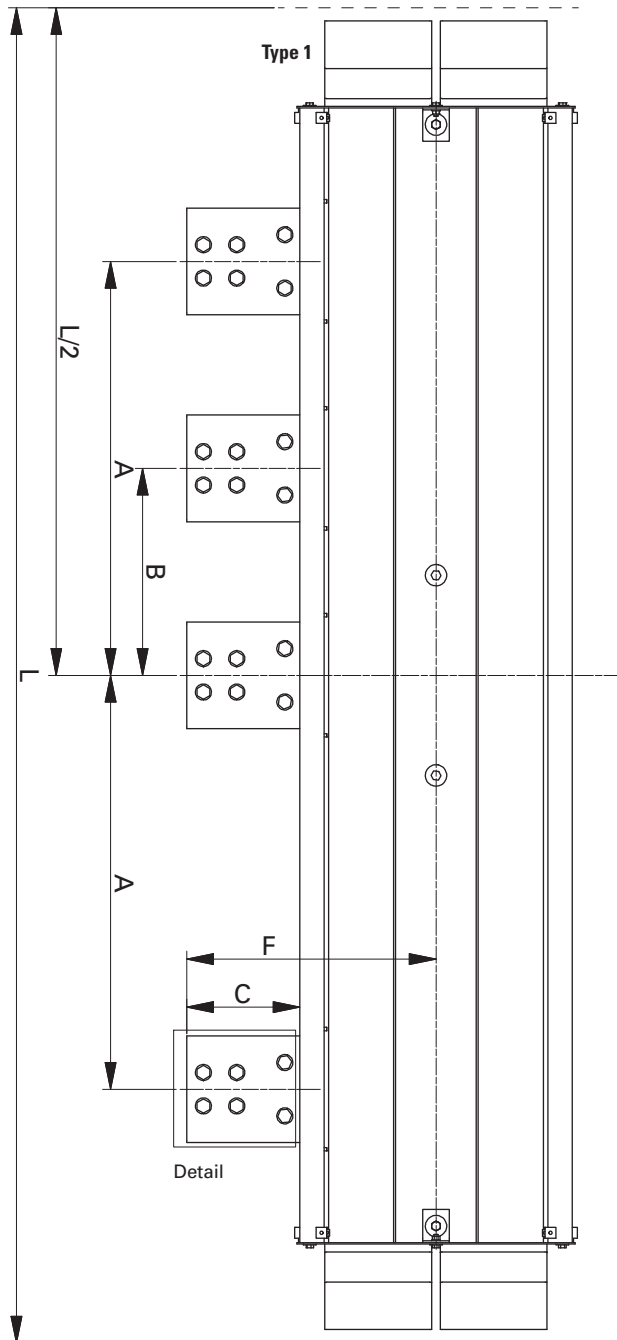


## XP X-sectional dimensions

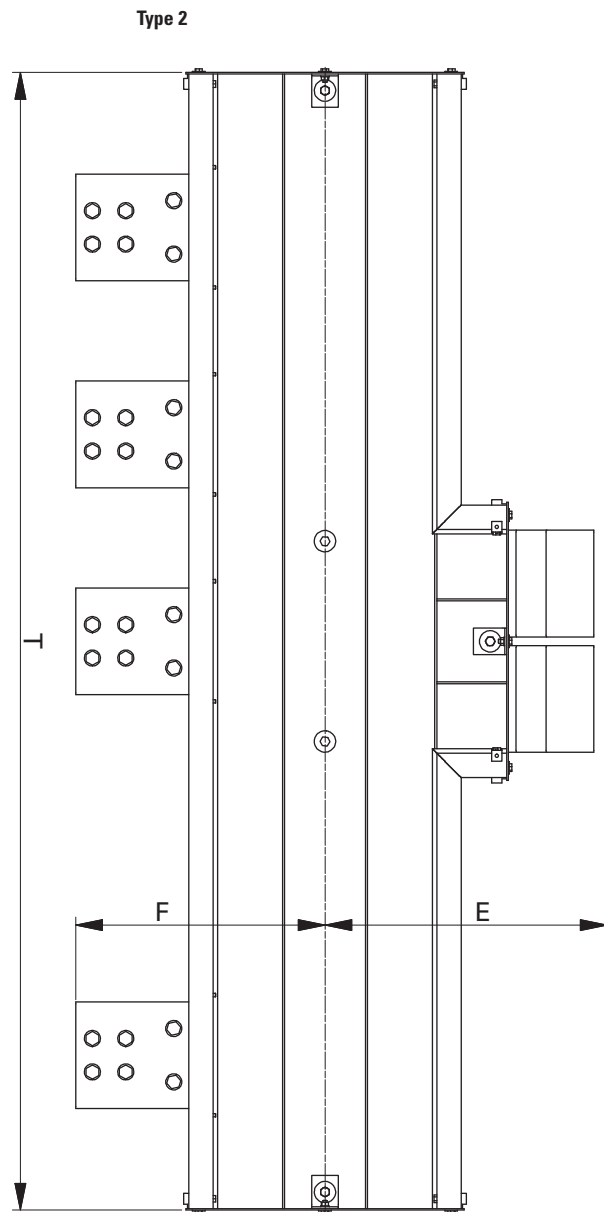
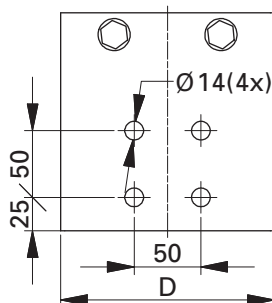
X-sectional dims	Dim A Cu	Dim A Alu
500 A / 800 A	125 mm	140 mm
1000 A	140 mm	170 mm
1250 A	155 mm	200 mm
1600 A	200 mm	235 mm
2000 A	235 mm	275 mm
2500 A	275 mm	340 mm
3200 A	340 mm	410 mm
4000 A	410 mm	490 mm
5000 A	490 mm	—
6300 A	701 mm	—



Type 1 and 2 fire barrier dimensional drawings

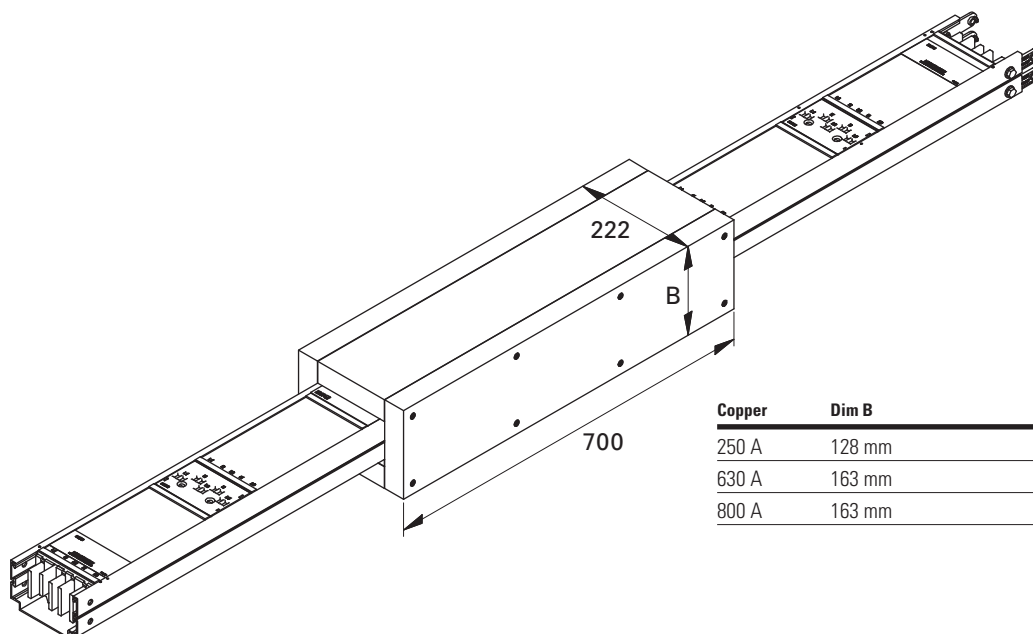


Detail (1:2)



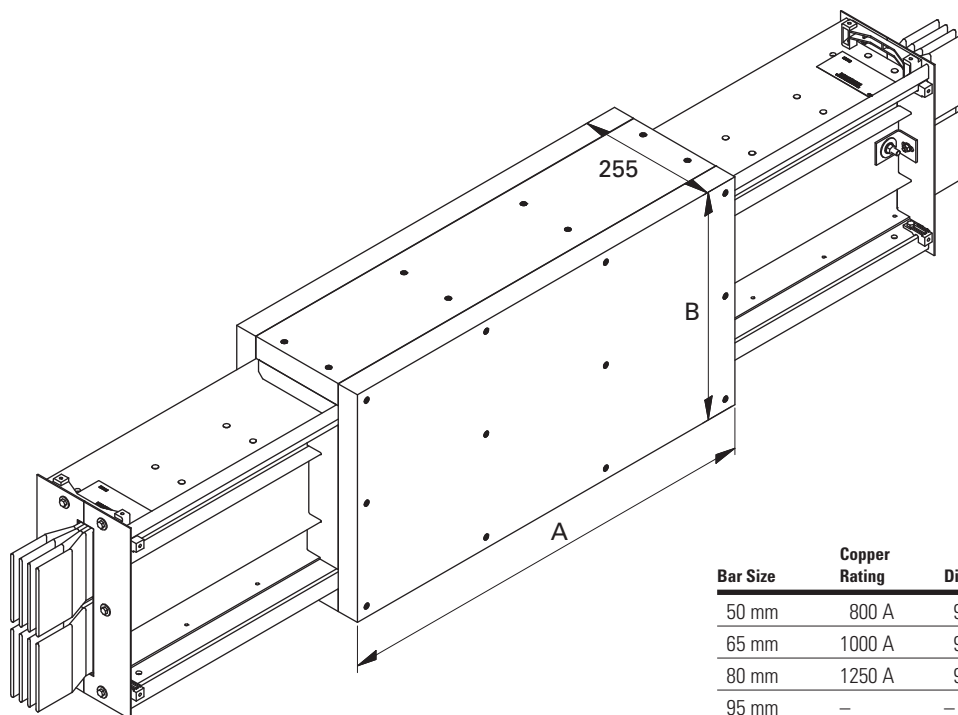
Rating	Dim L	Dim T	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F
<b>Aluminium transformer connection types 1 &amp; 2</b>								
800 kVA	1700 mm	1404 mm	495 mm	250 mm	140 mm	95 mm	400 mm	240 mm
1000 kVA	1700 mm	1404 mm	530 mm	260 mm	140 mm	95 mm	418 mm	257 mm
1250 kVA	2000 mm	1704 mm	560 mm	280 mm	170 mm	125 mm	438 mm	307 mm
1600 kVA	2000 mm	1704 mm	600 mm	300 mm	170 mm	125 mm	469 mm	339 mm
2000 kVA	2000 mm	1704 mm	620 mm	310 mm	170 mm	160 mm	504 mm	374 mm
2500 kVA	2000 mm	1704 mm	660 mm	330 mm	170 mm	200 mm	544 mm	414 mm
<b>Copper transformer connection types 1 &amp; 2</b>								
800 kVA	1700 mm	1404 mm	495 mm	250 mm	140 mm	80 mm	378 mm	217 mm
1000 kVA	1700 mm	1404 mm	530 mm	260 mm	140 mm	80 mm	400 mm	240 mm
1250 kVA	2000 mm	1704 mm	560 mm	280 mm	170 mm	125 mm	418 mm	287 mm
1600 kVA	2000 mm	1704 mm	600 mm	300 mm	170 mm	125 mm	438 mm	307 mm
2000 kVA	2000 mm	1704 mm	620 mm	310 mm	170 mm	125 mm	469 mm	339 mm
2500 kVA	2000 mm	1704 mm	660 mm	330 mm	170 mm	160 mm	504 mm	374 mm
3150 kVA	2000 mm	1704 mm	680 mm	340 mm	170 mm	200 mm	544 mm	414 mm

## MP fire barrier dimensional drawings



Copper	Dim B
250 A	128 mm
630 A	163 mm
800 A	163 mm

## XP fire barrier dimensional drawings



Bar Size	Copper Rating	Dim A (Cu)	Aluminium Rating	Dim A (Al)	Dim B
50 mm	800 A	900 mm	—	—	205 mm
65 mm	1000 A	900 mm	800 A	800 mm	220 mm
80 mm	1250 A	900 mm	—	—	235 mm
95 mm	—	—	1000 A	800 mm	250 mm
125 mm	1600 A	900 mm	1250 A	800 mm	280 mm
160 mm	2000 A	900 mm	1600 A	800 mm	315 mm
200 mm	2500 A	900 mm	2000 A	800 mm	355 mm
2 x 125 mm	3200 A	1000 mm	2500 A	800 mm	418 mm
2 x 160 mm	4000 A	1000 mm	3200 A	800 mm	488 mm
2 x 200 mm	5000 A	1000 mm	4000 A	800 mm	568 mm
3 x 200 mm	6300 A	1000 mm	—	—	783 mm

## LUX range typical specification



The lighting system in ratings of 25 A, 40 A and 63 A is designed and manufactured to comply with IEC 60439-2 and BSEN 60439-2 standards and suitable for use at 400 V 3 phase 50 Hz.

The trunking complies to a degree of protection IP41, as defined in IEC 60529 and BSEN 60439-2 and capable of advanced level of protection to IP55. The trunking casing is manufactured from extruded aluminium section and be available in 3 metre and 1 metre lengths with tapping outlets every 1 metre along its length on one side. Jointing of the lengths is by a combined mechanical and electrical rigid jointing piece retained by a spring clip and screw. The casing will provide the protective conductor.

The phases and neutral conductors (4 pole or 6 pole) are copper of a suitable size for given 25 A, 40 A and 63 A ratings and of equal cross-sectional area. They are fully insulated and supported throughout the length of the trunking. The tap-off outlets have protective covers to prevent accidental contact with live conductors.

Fixing brackets are supplied, suitable for suspension or wall mounting of trunking, at given intervals.

### Tapping units

Tap-off units are plug-in type and provide suitable protection during connection and disconnection. They are supplied either pre-wired or with terminals for direct connection. Fused tap-off units are available, rated 6 A and 16 A.

## LP range typical specification



The Busbar system in ratings from 40 A - 125 A, is designed for use as a power distribution system for both commercial and industrial applications. Current ratings shall be as detailed on the drawings/schedules and comply to a degree of protection IP4X,

as defined in IEC 60529 (BSEN 60529).

Eaton's busbar trunking system is designed and manufactured to comply fully with IEC 60439-2 and BSEN 60439-2 standards and suitable for use in a 400 V, 3 phase, 4 wire, 50 Hz supply. The busbar trunking is DEKRA & ASTA certified and capable of withstanding prospective fault level currents as detailed on the drawings/schedules.

The enclosure is manufactured from shaped extruded aluminium profile with interlocking covers manufactured from A.B.S. plastic, flammability grade UL-94-V-O. The busbar trunking is available in 3 m, 2 m or 1 m lengths with tapping outlets every third of a metre along its length. Each length is complete with mechanical coupling and spring loaded electrical contacts to provide a quality joint automatically.

The conductor bars are square or rectangular hard drawn high conductivity copper as specified in the drawings/schedules and incorporate (five) conductors, one of which is an integral earth conductor which does not rely on the busbar trunking case for earth continuity.

Power tap-off points are provided at 333 mm intervals on one side of the trunking and are fully shrouded by automatic shutters ('finger-safe') to prevent accidental contact with live parts. The shutters are operated by inserting and removing the tap-off units. When a change of direction occurs in a busbar run, manufacturers purpose made fittings are used.

Fixing brackets are supplied by the manufacturer for suspension, or wall mounting, at a distance of 1.5 metres unless stated differently in the drawing/schedules.

### Tapping boxes

Tapping boxes are "plug-in" type fitted with HRC fuses, MCB's, RCBO's, or socket outlets (BS 1363 or EN 60309-2) as detailed on the drawings/specifications.

The tapping boxes are designed and manufactured so that the current carrying metal is not exposed during insertion or removal, and the unit is connected to earth before contact is made with the live busbar conductors. The unit remains earthed during removal until all live connections are disconnected.

The tapping box enclosures are manufactured from reinforced polyester, classified flammability grade UL-94-V-O. A safety device is fitted to ensure non-reversibility when connecting to the Busbar.



**MP range typical specification**

The busbar system in ratings from 125 - 800 A, is of approved manufacture, designed for use as a rising main and horizontal power distribution system for both commercial and industrial applications.

Current ratings are as detailed on the drawings / schedules and comply to a degree of protection IP4X, as defined in IEC 60529 (BSEN 60529) and capable of an advanced level of protection to IP54.

The busbar system is designed and manufactured to comply fully with IEC 60439-2, IEC 61439-6 and BSEN 60439-2, BSEN 61439-6 standards and suitable for use in 690 V, 3 phase, 4 wire, 50 Hz supply. The busbar system is DEKRA (KEMA) certified and capable of withstanding prospective fault level currents as detailed on the drawings / schedules.

The enclosure is manufactured from shaped extruded painted aluminium profile with interlocking flame retardant polyester covers. The busbar trunking is available in 3 m, 2 m or 1 m lengths with tapping outlets every third of a metre along its length. Each length is complete with mechanical coupling in order to provide a quality electro-mechanical joint.

The conductor bars are square or rectangular hard drawn high conductivity copper or aluminium as specified in the drawings/ schedules and shall incorporate (five) conductors, one of which will be an integral earth conductor and does not rely on the busbar enclosure for earth continuity.

Fire resisting barriers are provided within the trunking where the enclosure passes through fire rated floor or wall positions. The fire barriers are manufactured from approved mineral board in order to form a barrier not less than 125 mm thick.

Busbars are tested to standards EN 1366-3 & DIN 4102-9 for fire resistance with protection to E120 & I120.

Busbars are tested for circuit (functional) integrity DIN 4102-12 maintaining the function of electrical circuit during fire for 2 hours when enclosed in Promatect product.

Approved external fire barrier kits for retrofitting onsite available to EN 1366-3 & DIN 4102-9.

Power tap-off points are provided at 333 mm intervals on one side of the trunking and is fully shrouded by automatic shutters ("finger safe") to prevent accidental contact with live parts. The shutters are operated by inserting and removing the tap-off units.

When a change of direction occurs in a busbar run, manufacturers purpose made fittings shall be used.

Fixing brackets are supplied by the manufacturer for suspension or wall mounting at a distance of 1.5 metres unless stated differently in the drawings / schedules.

**Tapping boxes**

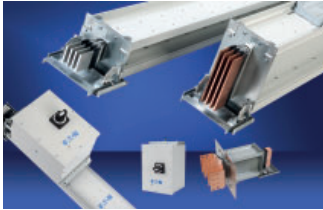
Tapping boxes are "plug-in" type fitted with HRC fuses, MCB's, MCCB's, switch fuses, fuse combination units or socket outlets (BSEN 60309-1, BSEN 60309-1) as detailed on the drawings/ specifications.

The tapping boxes are designed and manufactured so that the current carrying parts are not exposed during insertion or removal, and the unit is connected to earth before contact is made with the line busbar conductors. The unit remains earthed during removal until all live connections are disconnected.

The tapping box enclosures are manufactured from 1.5 mm sheet steel, with paint finish to RAL 7035. Tapping boxes are provided complete with integral flexible cables terminating in a purpose made shrouded copper connection, tin plated plugs for attachment to the busbar without drilling or clamping.

A safety device is fitted to ensure non-reversibility when connecting tapping boxes to the busbar.

## XP range typical specification



The busbar system in ratings from 800 - 6300 A, is of approved manufacture, designed for use as a rising main and horizontal power distribution system for both commercial and industrial applications.

Current ratings are as detailed on the drawings / schedules and comply to a degree of protection IP55, as defined in IEC 60529 (BSEN 60529).

The busbar system is designed and manufactured to comply with IEC 60439-2, IEC 61439-6 and BSEN 60439-2, BSEN 61439-6 standards and suitable for use in 690 V, 3 phase, 4 wire, 50 Hz supply, taking into consideration the requirements of BS 7671 (IEE Wiring Regulations). The system is supplied as factory assembled units, which are rigid in construction and symmetrical in appearance.

Busbar section ends are asymmetrical in order to prohibit phase reversal of adjacent sections. The joint between adjacent busbar lengths rated from 800 - 6300 A is formed by a removable joint pack. Insulator plates are provided within the joints to isolate each phase conductor joint. With all exposed plastic components made from Low Smoke Halogen Free material, flammability grade UL-94-V-O. The integral joint and busbar construction form a combined structure sufficiently rigid to be supported on 2 m centres.

Deforming the Busbar casing shall not compromise joint integrity. The Busbar casing has no ventilating openings. Horizontal or vertical hangers are provided as required. Feeder, Distribution and Rising Mains section are interchangeable.

The tap-off outlet has an integral shutter that will automatically open upon fitting of a tapping unit. It is possible to position tap-off outlets to the customers specification. Tap-off outlets meet IEC 60529 (BSEN 60529) IP55 requirements without the need for an additional cover.

Tap-off outlets are available on Distribution busbars up to three per 3 m length. Tap-off outlets are located on one side for the Rising Mains busbar. The housing is extruded aluminium section custom-designed for the system.

All additional fixings and fittings are plated for corrosion resistance. The busbar is suitable for the following uses: IP55 Feeder and Distribution without additional covers. The maximum operating temperature complies with above standards in any position at its rated current and level of protection.

## Joints

Electrical joints are accomplished with a shear bolt joint connection. A two-headed joint bolt is utilized to provide a one-time torque indication on installation. The joint bolt provides an easily detected visual indication that the bolt has been tightened to the specified torque. Inspection joint covers are provided to permit periodic joint examination without disturbing joint pressure or reducing the Busbars ability to be supported on 2 m centres. It is possible to remove a section of busbar without disturbing adjacent sections. Disc spring washers are used at the joint to uniformly distribute pressure. The disc spring washers also accommodate the thermal expansion of the busbars and housing at this position.

## Busbars

Busbars are fabricated from electrical grade Copper (C101 EN 13601: 2002) or electrical grade Aluminium. Plated bars shall be provided where specification requires. The busbar system is DEKRA (KEMA) certified and capable of withstanding prospective fault level currents as detailed on the drawings/schedules. Busbars are insulated with a 140 degree celsius insulation. The construction ensures that busbar spacing is held to a minimum reducing reactance. The design of the system ensures that differential expansion between adjacent bars, or between bars and casing is accommodated within the length. The aluminium housing will serve as an integral earth conductor. With optional variations of: 200% rated neutral can be provided which is entirely contained within the busbar housing, 100% rated earth bar can be provided which is entirely contained within the busbar housing and a 100% rated isolated earth (clean earth) can also be provided which is entirely contained within the busbar housing.

## Tapping units

Tapping units are "plug-in" type fitted with MCCB's and Fuse-Switch Disconnectors as detailed on the drawings / specifications. Fuse-switch tapping units will contain a double-break switch disconnector conforming to IEC 60947-3, BSEN 60947-3 and suitably equipped to accept fuse links.

The tap-off units have an interlocked door with suitable rotary operating mechanism. Fused tapping units contain three fuse carriers suitably rated to accept fuse links. The tapping units will have a hinged door with internal live contact protection.

The tapping boxes are designed and manufactured so that the current carrying conductors are not exposed during insertion or removal, and the unit is connected to earth before contact is made with the line busbar conductors. The unit remains earthed during removal until all live connections are disconnected.

The tapping box enclosures are manufactured from 1.5 mm sheet steel, with paint finish to RAL 7035. Tapping boxes are provided complete with integral flexible cables terminating in a purpose made shrouded copper connection, complete with electro-tin plated plugs for attachment to the busbar without drilling or clamping.

Tapping units are designed so that all accessories required to attach the unit to the busbars are captive. Switched Tapping units are of the safety type, so interlocked with the busbar housing that they cannot be added or removed unless the switching mechanism is "OFF".

Tap-off units are designed with built in safety device to ensure non-reversibility when connecting to the busbar.

The "ON/OFF" indicator also uses the international symbols for identifying "ON" (I) and "OFF" (O).

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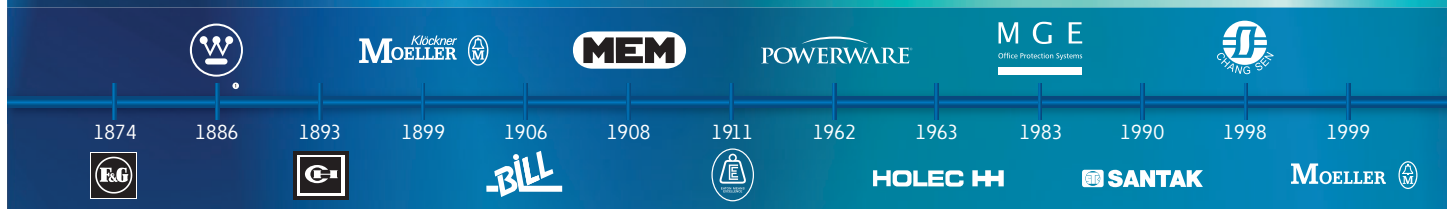
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