

# XCM Medium power busbar system

Cat.Nos :

see relative catalogue for detailed reference tables



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## 1. USE

XCM is dedicated to the distribution of power in medium to large installations, including rising mains, in commercial and residential buildings. The typical applications for XCM busbars are: industry, commercial and residential, hospitals, data centre, shopping centres and everywhere there is the need for power distribution up to 1000 A.

XCM busbars guarantee maximum system functionality thanks to careful design of the components, easy installation, and the construction characteristics, which make XCM busbars among the strongest on the market.

The unique design of the XCM monobloc compensates the thermal expansion of conductors. This is a key benefit for vertical (rising mains) applications as the system does not require busbar blocking elements, or thermal expansion elements.

## 2. RANGE

Ranging from 160 A to 1000 A with aluminium alloy conductors, and from 250 A to 1000 A with 99.9% electrolytic copper conductors.

Available rating (A)

	160	250	315	400	500	630	800	1000
Aluminium	160	250	315	400	500	630	800	1000
Copper	-	250	315	400	-	630	800	1000

The range is designed to trunk several bars into a single structure. Two combinations of conductors are available: 4 conductors with the same section (3P+N) with PE made from the casing or 5 conductors when using XCM (3P+N+PE), available in aluminium and copper.

XCM is available in the following configurations:

- 3P + N + PE casing ;
- 3P + N + PE ;
- 3P + N + FE + PE casing

On request, it is possible to have non-standard XCM line versions. See the following table for some example of available versions:

	Cat.Nos	Version description	Conductors
Standard version	53400P261	3Ph + N + PE casing	4
	53410P261	3Ph + N + PE	5
	53410P261-E5	3Ph + N + FE + PE casing	5
Special version	53420P261	3Ph + N + PE casing (painted version)	4
	53430P261	3Ph + N + PE (painted version)	5
	53430P261-E5	3Ph + N + FE + PE casing (painted version)	5

For more details on special versions, please contact Legrand.

## 3. TECHNICAL DATAS

### ■ 3.1 Mechanical characteristics

Protection against solid bodies/liquids: IP 55 when installed with the plug outlet cover, and is compliant with the IEC 61439-6 standard.

XCM range has been designed and manufactured with a strong casing. The degree of impact resistance of the casing which houses this line is the maximum stated in IEC EN60068-2-62: IK 10.

### ■ 3.2 Material characteristics

All version are available in a painted version (RAL to be defined by the customer).

Conductors insulators are made with fiberglass reinforced plastic material, ensuring a V0 selfextinguishing degree (according to UL94), in compliance with the glow-wire test according to IEC 60695-2-10;

### ■ 3.3 Electrical characteristics

See page 3 to 8.

### ■ 3.4 Climate characteristics

The unique design of the XCM monobloc compensates the thermal expansion of conductors. This is a key benefit for vertical (rising mains) applications as the system does not require busbar blocking elements, or thermal expansion elements.

### Temperature derating :

For ambient temperatures under -5°C contact Legrand technical support. Data in the table are referred to 50Hz. For 60 Hz, please contact Legrand technical support.

Daily average ambient temperature	General correction factor for ambient temperatures different from 40 °C (K <sub>t</sub> )
-5	1.28
0	1.25
5	1.22
10	1.19
15	1.16
20	1.13
25	1.10
30	1.07
<b>35</b>	<b>1.03</b>
40	1
45	0.97
50	0.93

Reference ambient temperature : 40 °C.

From 40 °C it will be necessary to derate the busbar

**3. TECHNICAL DATAS (continued)**

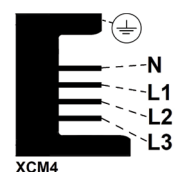
XCM ALUMINIUM: version XCM4 (4 conductors): 3P + N + PE (50Hz)									
Rated current	In [A]	160	250	315	400	500	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	690
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	690
Frequency	f [Hz]	50	50	50	50	50	50	50	50
Rated short-time current (1 s) ICW	[kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current	Ipk [kA]	30	53	53	53	63	76	76	76
Allowable specific energy for three-phase fault	I <sup>2</sup> t [MA <sup>2</sup> s]	23	63	63	625	900	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current of the neutral bar	Ipk [kA]	28	49	49	49	59	70	70	70
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	15 *	15 *	15 *	13	13	13	13	13
Peak current of the protective circuit	Ipk [kA]	30	30	30	26	26	26	26	26
Phase resistance at 20°C	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Phase reactance (50hz)	X [mΩ/m]	0,150	0,150	0,150	0,140	0,070	0,070	0,070	0,060
Phase impedance	Z [mΩ/m]	0,515	0,363	0,252	0,184	0,104	0,092	0,087	0,070
Phase resistance at thermal conditions	R [mΩ/m]	0,651	0,485	0,285	0,152	0,098	0,080	0,074	0,053
Phase impedance at thermal conditions	Z [mΩ/m]	0,668	0,507	0,322	0,207	0,120	0,106	0,102	0,080
Neutral resistance	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Functional Earth resistance (FE)	R20 [mΩ/m]	-	-	-	-	-	-	-	-
Functional Earth reactance (FE) (50hz)	X [mΩ/m]	-	-	-	-	-	-	-	-
Resistance of the protective bar	RPE [mΩ/m]	0,310	0,310	0,310	0,257	0,257	0,257	0,257	0,257
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,220	0,220	0,220	0,180	0,180	0,180	0,180	0,180
Resistance of the fault loop	Ro [mΩ/m]	0,803	0,641	0,512	0,377	0,334	0,317	0,309	0,294
Reactance of the fault loop	Xo [mΩ/m]	0,370	0,370	0,370	0,320	0,250	0,250	0,250	0,240
Impedance of the fault loop	Zo [mΩ/m]	0,884	0,740	0,632	0,494	0,417	0,404	0,397	0,380
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,657	0,441	0,269	0,160	0,103	0,080	0,069	0,049
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,200	0,200	0,200	0,187	0,093	0,093	0,093	0,080
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,687	0,485	0,335	0,246	0,139	0,123	0,116	0,094
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,474	0,420	0,377	0,297	0,283	0,277	0,274	0,269
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,270	0,270	0,270	0,227	0,203	0,203	0,203	0,200
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,546	0,500	0,464	0,374	0,348	0,344	0,341	0,335

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



**3. TECHNICAL DATAS (continued)**

XCM ALUMINIUM: version XCM4 (4 conductors): 3P + N + PE (50Hz)									
Voltage drop with distributed load $\Delta V$ [V/(m*A)]	$\cos\phi = 0,70$	0,429	0,326	0,233	0,167	0,095	0,084	0,080	0,063
	$\cos\phi = 0,75$	0,446	0,336	0,237	0,167	0,096	0,084	0,079	0,062
	$\cos\phi = 0,80$	0,462	0,344	0,239	0,165	0,096	0,083	0,078	0,061
	$\cos\phi = 0,85$	0,477	0,351	0,239	0,162	0,095	0,082	0,076	0,059
	$\cos\phi = 0,90$	0,489	0,356	0,237	0,157	0,093	0,079	0,073	0,056
	$\cos\phi = 0,95$	0,497	0,357	0,231	0,148	0,089	0,075	0,068	0,051
	$\cos\phi = 1,00$	0,480	0,333	0,201	0,116	0,074	0,059	0,052	0,037
Weight	p [kg/m]	7,1	7,6	8,3	11,0	12,7	14,0	15,0	17,0
Degree of protection	IP	55	55	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	43	72	69	64	64	81	115	128
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

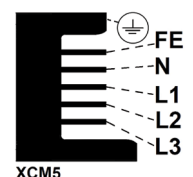
XCM ALUMINIUM: version XCM5 (5 conductors): 3P + N + PE + FE (50Hz)									
Rated current	In [A]	160	250	315	400	500	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	690
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	690
Frequency f	[Hz]	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current	Ipk [kA]	30	53	53	53	63	76	76	76
Allowable specific energy for three-phase fault	$I^2 t$ [MA <sup>2</sup> s]	23	63	63	625	900	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current of the neutral bar	Ipk [kA]	28	49	49	49	59	70	70	70
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	15 *	15 *	15 *	13	13	13	13	13
Peak current of the protective circuit	Ipk [kA]	30	30	30	26	26	26	26	26
Phase resistance at 20°C	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Phase reactance (50hz)	X [mΩ/m]	0,150	0,150	0,150	0,140	0,070	0,070	0,070	0,060
Phase impedance	Z [mΩ/m]	0,515	0,363	0,252	0,184	0,104	0,092	0,087	0,070
Phase resistance at thermal conditions	R [mΩ/m]	0,651	0,485	0,285	0,152	0,098	0,080	0,074	0,053
Phase impedance at thermal conditions	Z [mΩ/m]	0,668	0,507	0,322	0,207	0,120	0,106	0,102	0,080
Neutral resistance	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Functional Earth resistance (FE)	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Functional Earth reactance (FE) (50hz)	X [mΩ/m]	0,150	0,150	0,150	0,140	0,070	0,070	0,070	0,060
Resistance of the protective bar	RPE [mΩ/m]	0,310	0,310	0,310	0,257	0,257	0,257	0,257	0,257
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,220	0,220	0,220	0,180	0,180	0,180	0,180	0,180
Resistance of the fault loop	Ro [mΩ/m]	0,803	0,641	0,512	0,377	0,334	0,317	0,309	0,294
Reactance of the fault loop	Xo [mΩ/m]	0,370	0,370	0,370	0,320	0,250	0,250	0,250	0,240

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



**3. TECHNICAL DATAS (continued)**

XCM ALUMINIUM: version XCM5 (5 conductors): 3P + N + PE + FE (50Hz)									
Impedance of the fault loop	Zo [mΩ/m]	0,884	0,740	0,632	0,494	0,417	0,404	0,397	0,380
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,657	0,441	0,269	0,160	0,103	0,080	0,069	0,049
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,200	0,200	0,200	0,187	0,093	0,093	0,093	0,080
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,687	0,485	0,335	0,246	0,139	0,123	0,116	0,094
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,474	0,420	0,377	0,297	0,283	0,277	0,274	0,269
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,270	0,270	0,270	0,227	0,203	0,203	0,203	0,200
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,546	0,500	0,464	0,374	0,348	0,344	0,341	0,335
Voltage drop with distributed load ΔV [V/(m*A)]	cosφ = 0,70	0,429	0,326	0,233	0,167	0,095	0,084	0,080	0,063
	cosφ = 0,75	0,446	0,336	0,237	0,167	0,096	0,084	0,079	0,062
	cosφ = 0,80	0,462	0,344	0,239	0,165	0,096	0,083	0,078	0,061
	cosφ = 0,85	0,477	0,351	0,239	0,162	0,095	0,082	0,076	0,059
	cosφ = 0,90	0,489	0,356	0,237	0,157	0,093	0,079	0,073	0,056
	cosφ = 0,95	0,497	0,357	0,231	0,148	0,089	0,075	0,068	0,051
	cosφ = 1,00	0,480	0,333	0,201	0,116	0,074	0,059	0,052	0,037
Weight	p [kg/m]	7,3	7,8	8,7	11,8	13,9	15,5	16,8	19,2
Degree of protection	IP	55	55	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	43	72	69	64	64	81	115	128
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

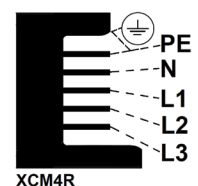
XCM ALUMINIUM: version XCM4R (5 conductors): 3P + N + PE (casing // bar) (50Hz)									
Rated current	In [A]	160	250	315	400	500	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	690
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	690
Frequency	f [Hz]	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current	Ipk [kA]	30	53	53	53	63	76	76	76
Allowable specific energy for three-phase fault	I <sup>2</sup> t [MA <sup>2</sup> s]	23	63	63	625	900	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current of the neutral bar	Ipk [kA]	28	49	49	49	59	70	70	70
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	15 *	25 *	25 *	25	30	36	36	36
Peak current of the protective circuit	Ipk [kA]	28	49	49	49	59	70	70	70
Phase resistance at 20°C	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037

\* Reference time = 0,1 sec.

\*\* \*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



**3. TECHNICAL DATAS (continued)**

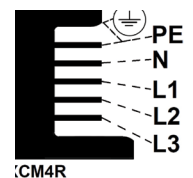
XCM ALUMINIUM: version XCM4R (5 conductors): 3P + N + PE (casing // bar) (50Hz)									
Phase reactance (50hz)	X [mΩ/m]	0,150	0,150	0,150	0,140	0,070	0,070	0,070	0,060
Phase impedance	Z [mΩ/m]	0,515	0,363	0,252	0,184	0,104	0,092	0,087	0,070
Phase resistance at thermal conditions	R [mΩ/m]	0,651	0,485	0,285	0,152	0,098	0,080	0,074	0,053
Phase impedance at thermal conditions	Z [mΩ/m]	0,668	0,507	0,322	0,207	0,120	0,106	0,102	0,080
Neutral resistance	R20 [mΩ/m]	0,493	0,331	0,202	0,120	0,077	0,060	0,052	0,037
Functional Earth resistance (FE)	R20 [mΩ/m]	-	-	-	-	-	-	-	-
Functional Earth reactance (FE) (50hz)	X [mΩ/m] -	-	-	-	-	-	-	-	-
Resistance of the protective bar	RPE [mΩ/m]	0,196	0,162	0,122	0,084	0,060	0,050	0,045	0,034
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,102	0,093	0,089	0,081	0,051	0,052	0,052	0,047
Resistance of the fault loop	Ro [mΩ/m]	0,689	0,493	0,324	0,204	0,137	0,110	0,097	0,071
Reactance of the fault loop	Xo [mΩ/m]	0,252	0,243	0,239	0,221	0,121	0,122	0,122	0,107
Impedance of the fault loop	Zo [mΩ/m]	0,734	0,550	0,403	0,301	0,182	0,164	0,156	0,129
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,657	0,441	0,269	0,160	0,103	0,080	0,069	0,049
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,200	0,200	0,200	0,187	0,093	0,093	0,093	0,080
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,687	0,485	0,335	0,246	0,139	0,123	0,116	0,094
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,361	0,272	0,190	0,124	0,085	0,070	0,062	0,046
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,152	0,143	0,139	0,128	0,074	0,075	0,076	0,067
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,392	0,307	0,235	0,178	0,113	0,102	0,098	0,082
Voltage drop with distributed load ΔV [V/(m*A)]	cosφ = 0,70	0,429	0,326	0,233	0,167	0,095	0,084	0,080	0,063
	cosφ = 0,75	0,446	0,336	0,237	0,167	0,096	0,084	0,079	0,062
	cosφ = 0,80	0,462	0,344	0,239	0,165	0,096	0,083	0,078	0,061
	cosφ = 0,85	0,477	0,351	0,239	0,162	0,095	0,082	0,076	0,059
	cosφ = 0,90	0,489	0,356	0,237	0,157	0,093	0,079	0,073	0,056
	cosφ = 0,95	0,497	0,357	0,231	0,148	0,089	0,075	0,068	0,051
	cosφ = 1,00	0,480	0,333	0,201	0,116	0,074	0,059	0,052	0,037
Weight	p [kg/m]	7,3	7,8	8,7	11,8	13,9	15,5	16,8	19,2
Degree of protection	IP	55	55	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	43	72	69	64	64	81	115	128
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



**3. TECHNICAL DATAS (continued)**

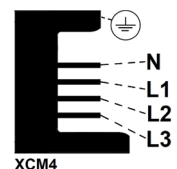
XCM COPPER: version XCM4 (4 conductors): 3P + N + PE (50Hz)							
Rated current	In [A]	250	315	400	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50
Rated short-time current (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current	Ipk [kA]	53	53	63	76	76	76
Allowable specific energy for three-phase fault	I <sup>2</sup> t [MA <sup>2</sup> s]	63	63	90	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current of the neutral bar	Ipk [kA]	53	53	63	76	76	76
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	15 *	15 *	15 *	13	13	13
Peak current of the protective circuit	Ipk [kA]	30	30	30	26	26	26
Phase resistance at 20°C	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Phase reactance (50hz)	X [mΩ/m]	0,158	0,138	0,119	0,064	0,064	0,056
Phase impedance	Z [mΩ/m]	0,287	0,228	0,155	0,088	0,075	0,064
Phase resistance at thermal conditions	R [mΩ/m]	0,320	0,254	0,133	0,082	0,054	0,046
Phase impedance at thermal conditions	Z [mΩ/m]	0,357	0,289	0,179	0,104	0,084	0,073
Neutral resistance	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Functional Earth resistance (FE)	R20 [mΩ/m]	-	-	-	-	-	-
Functional Earth reactance (FE) (50hz)	X [mΩ/m]	-	-	-	-	-	-
Resistance of the protective bar	RPE [mΩ/m]	0,310	0,310	0,310	0,257	0,257	0,257
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,220	0,220	0,220	0,180	0,180	0,180
Resistance of the fault loop	Ro [mΩ/m]	0,549	0,492	0,409	0,318	0,297	0,289
Reactance of the fault loop	Xo [mΩ/m]	0,378	0,358	0,339	0,244	0,244	0,236
Impedance of the fault loop	Zo [mΩ/m]	0,667	0,608	0,531	0,401	0,384	0,373
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,319	0,243	0,132	0,081	0,053	0,043
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,211	0,184	0,159	0,085	0,085	0,075
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,382	0,305	0,206	0,118	0,101	0,086
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,390	0,371	0,343	0,277	0,270	0,268
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,273	0,266	0,260	0,201	0,201	0,199
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,476	0,457	0,430	0,342	0,337	0,334
Voltage drop with distributed load ΔV [V/(m*A)]	cosφ = 0,70	0,331	0,226	0,154	0,081	0,076	0,061
	cosφ = 0,75	0,340	0,230	0,155	0,081	0,076	0,060
	cosφ = 0,80	0,348	0,232	0,154	0,080	0,075	0,059
	cosφ = 0,85	0,355	0,234	0,153	0,079	0,073	0,057
	cosφ = 0,90	0,359	0,233	0,149	0,077	0,071	0,054
	cosφ = 0,95	0,359	0,228	0,142	0,073	0,067	0,050
	cosφ = 1,00	0,333	0,201	0,116	0,059	0,052	0,037
Weight	p [kg/m]	9,5	10,4	14,3	19,8	25,4	29,5
Degree of protection	IP	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	51	62	54	82	87	111
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



**3. TECHNICAL DATAS (continued)**

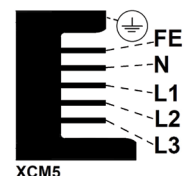
XCM COPPER: version XCM5 (5 conductors): 3P + N + PE + FE (50Hz)							
Rated current	In [A]	250	315	400	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50
Rated short-time current (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current	Ipk [kA]	53	53	63	76	76	76
Allowable specific energy for three-phase fault	I <sup>2</sup> t [MA <sup>2</sup> s]	63	63	90	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current of the neutral bar	Ipk [kA]	53	53	63	76	76	76
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	15 *	15 *	15 *	13	13	13
Peak current of the protective circuit	Ipk [kA]	30	30	30	26	26	26
Phase resistance at 20°C	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Phase reactance (50hz)	X [mΩ/m]	0,158	0,138	0,119	0,064	0,064	0,056
Phase impedance	Z [mΩ/m]	0,287	0,228	0,155	0,088	0,075	0,064
Phase resistance at thermal conditions	R [mΩ/m]	0,320	0,254	0,133	0,082	0,054	0,046
Phase impedance at thermal conditions	Z [mΩ/m]	0,357	0,289	0,179	0,104	0,084	0,073
Neutral resistance	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Functional Earth resistance (FE)	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Functional Earth reactance (FE) (50hz)	X [mΩ/m]	0,158	0,138	0,119	0,064	0,064	0,056
Resistance of the protective bar	RPE [mΩ/m]	0,310	0,310	0,310	0,257	0,257	0,257
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,220	0,220	0,220	0,180	0,180	0,180
Resistance of the fault loop	Ro [mΩ/m]	0,549	0,492	0,409	0,318	0,297	0,289
Reactance of the fault loop	Xo [mΩ/m]	0,378	0,358	0,339	0,244	0,244	0,236
Impedance of the fault loop	Zo [mΩ/m]	0,667	0,608	0,531	0,401	0,384	0,373
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,319	0,243	0,132	0,081	0,053	0,043
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,211	0,184	0,159	0,085	0,085	0,075
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,382	0,305	0,206	0,118	0,101	0,086
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,390	0,371	0,343	0,277	0,270	0,268
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,273	0,266	0,260	0,201	0,201	0,199
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,476	0,457	0,430	0,342	0,337	0,334
Voltage drop with distributed load ΔV [V/(m*A)]	cosφ = 0,70	0,331	0,226	0,154	0,081	0,076	0,061
	cosφ = 0,75	0,340	0,230	0,155	0,081	0,076	0,060
	cosφ = 0,80	0,348	0,232	0,154	0,080	0,075	0,059
	cosφ = 0,85	0,355	0,234	0,153	0,079	0,073	0,057
	cosφ = 0,90	0,359	0,233	0,149	0,077	0,071	0,054
	cosφ = 0,95	0,359	0,228	0,142	0,073	0,067	0,050
	cosφ = 1,00	0,333	0,201	0,116	0,059	0,052	0,037
Weight	p [kg/m]	10,2	11,3	15,9	22,5	29,5	34,6
Degree of protection	IP	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	51	62	54	82	87	111
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.





**3. TECHNICAL DATAS (continued)**

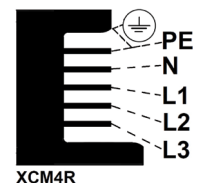
XCM COPPER: version XCM4R (5 conductors): 3P + N + PE (casing // bar) (50Hz)							
Rated current	In [A]	250	315	400	630	800	1000
Overall dimension of the busbars	L x H [mm]	196 x 75	196 x 75	196 x 75	196 x 135	196 x 135	196 x 135
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50
Rated short-time current (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current	Ipk [kA]	53	53	63	76	76	76
Allowable specific energy for three-phase fault	I <sup>2</sup> t [MA <sup>2</sup> s]	63	63	90	1296	1296	1296
Rated short-time current of the neutral bar (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current of the neutral bar	Ipk [kA]	53	53	63	76	76	76
Rated short-time current of the protective circuit (1 s)	ICW [kA]rms	25 *	25 *	30 *	36	36	36
Peak current of the protective circuit	Ipk [kA]	53	53	63	76	76	76
Phase resistance at 20°C	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Phase reactance (50hz)	X [mΩ/m]	0,158	0,138	0,119	0,064	0,064	0,056
Phase impedance	Z [mΩ/m]	0,287	0,228	0,155	0,088	0,075	0,064
Phase resistance at thermal conditions	R [mΩ/m]	0,320	0,254	0,133	0,082	0,054	0,046
Phase impedance at thermal conditions	Z [mΩ/m]	0,357	0,289	0,179	0,104	0,084	0,073
Neutral resistance	R20 [mΩ/m]	0,239	0,182	0,099	0,061	0,040	0,032
Functional Earth resistance (FE)	R20 [mΩ/m]	-	-	-	-	-	-
Functional Earth reactance (FE) (50hz)	X [mΩ/m]	-	-	-	-	-	-
Resistance of the protective bar	RPE [mΩ/m]	0,135	0,115	0,075	0,049	0,034	0,028
Reactance of the protective bar (50hz)	XPE [mΩ/m]	0,036	0,025	0,010	0,005	0,002	0,002
Resistance of the fault loop	Ro [mΩ/m]	0,374	0,297	0,174	0,110	0,074	0,060
Reactance of the fault loop	Xo [mΩ/m]	0,194	0,163	0,129	0,069	0,066	0,058
Impedance of the fault loop	Zo [mΩ/m]	0,421	0,339	0,217	0,130	0,100	0,083
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,319	0,243	0,132	0,081	0,053	0,043
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,211	0,184	0,159	0,085	0,085	0,075
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,382	0,305	0,206	0,118	0,101	0,086
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,215	0,175	0,108	0,069	0,048	0,039
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,089	0,071	0,050	0,026	0,024	0,020
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,232	0,189	0,119	0,074	0,053	0,044
Voltage drop with distributed load ΔV [V/(m*A)]	cosφ = 0,70	0,331	0,226	0,154	0,081	0,076	0,061
	cosφ = 0,75	0,340	0,230	0,155	0,081	0,076	0,060
	cosφ = 0,80	0,348	0,232	0,154	0,080	0,075	0,059
	cosφ = 0,85	0,355	0,234	0,153	0,079	0,073	0,057
	cosφ = 0,90	0,359	0,233	0,149	0,077	0,071	0,054
	cosφ = 0,95	0,359	0,228	0,142	0,073	0,067	0,050
	cosφ = 1,00	0,333	0,201	0,116	0,059	0,052	0,037
Weight	p [kg/m]	10,2	11,3	15,9	22,5	29,5	34,6
Degree of protection	IP	55	55	55	55	55	55
Losses for the Joule effect at nominal current	P [W/m]	51	62	54	82	87	111
Ambient temperature min/MAX (daily average)**	[°C]	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **	-5/70 **

\* Reference time = 0,1 sec.

\*\*\*For temperatures over 40°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

See chapter "3.4 Temperature derating", in this technical sheet

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.





**4. COMPOSITION**

Depending on installation requirements Legrand can provide various technical solutions, like:

■ **4.1 Straight elements**

Straight elements are designed for transport and distribution (with tap off outlets) of medium power energy. Supplied with their pre-installed monobloc.

Characteristics	Description
Reference standard	IEC 61439-6
Reference temperature	40 °C
Protection degree	IP 55
Thickness of metal sheet	0.8 mm
Number of conductors	4 with equal section 3P + N or 5 (3P + N + PE)
Dimension (LxH)	75 - 135 x 196 mm

Conducting «flame retardant» in accordance with EN 60332-3  
Separation between the conductors by plastic insulators reinforced with fibreglass, guarantees a degree of V0 self-extinguishing (according to UL94) and conform to the glow-wire test according to IEC 60695-2-10.

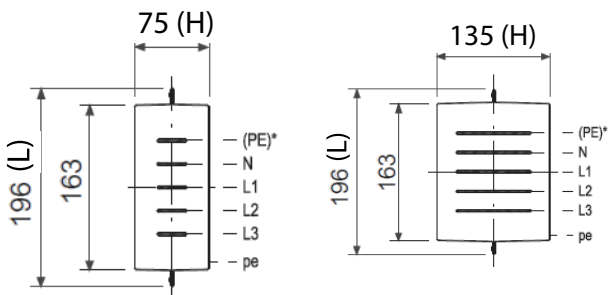
■ **4.2 Straight elements for transport**



**Section dimensions\***

Aluminium: 160A - 315A  
Copper: 250A - 400A

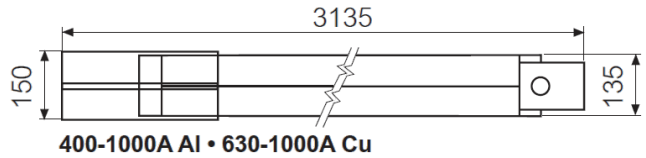
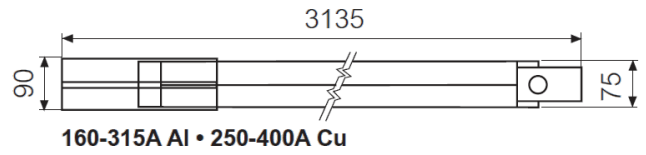
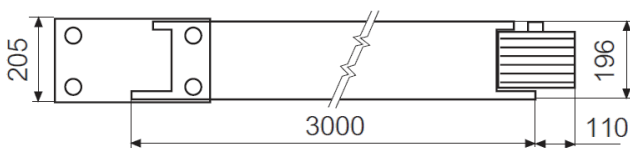
Aluminium: 400A - 1000A  
Copper: 630A - 1000A



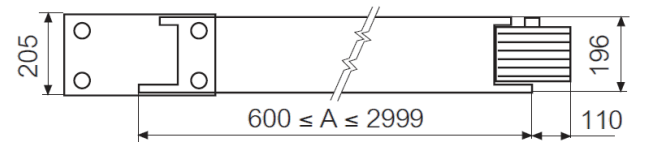
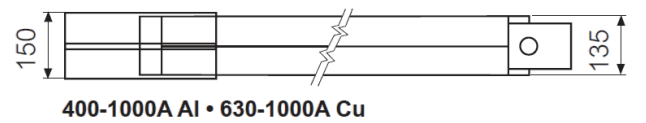
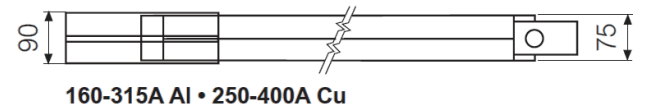
\* for 3P+N+PE and 3P+N+FE+PE casing

**Length**

Standard straight elements length : 3000 mm



Straight elements from 600 mm to 2999 mm length



■ **4.3 Straight elements for distribution**

Standard length: 3000 mm

Straight elements for distribution are supplied with their tap-off outlets.

Standard tap-off outlets are spaced at :

- 1000 mm interval on both sides for standard straight elements (IP55)
- 500 mm interval on one side for vertical installation (IP55) ;
- 600 mm or 800 mm on both sides for data center straight elements (IP40)

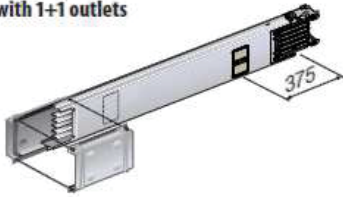
For each length, here are the possible number of outlets:

Length (mm)	Number of outlets
1000÷1500	1+1
1501÷2999	2+2
3000	3+3
3000	5

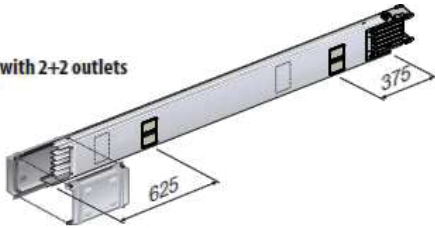
**4. COMPOSITION (continued)**

Interval between outlets for the different available versions :

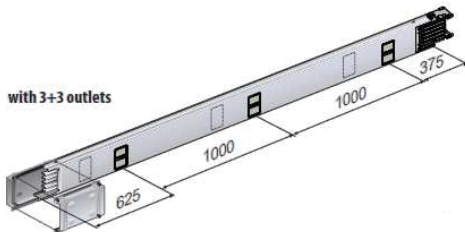
with 1+1 outlets



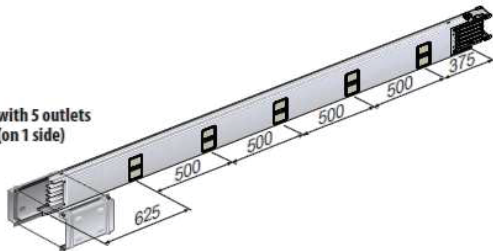
with 2+2 outlets



with 3+3 outlets



with 5 outlets  
(on 1 side)



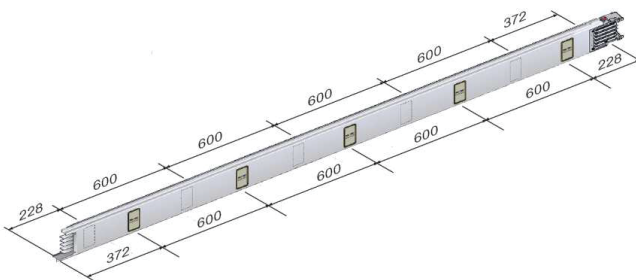
For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue.

**Straight element for distribution for data centers**

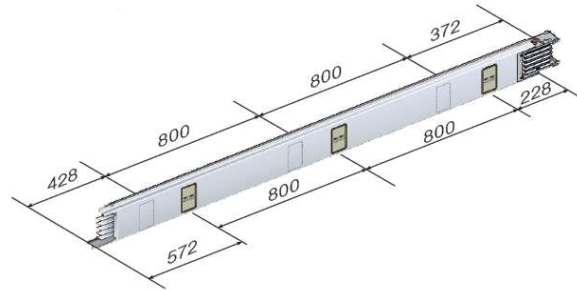
Straight element with 5+5 outlets on both sides are ideal for data center solutions.

The distance between outlets is between:

- 600 mm



- or 800 mm.

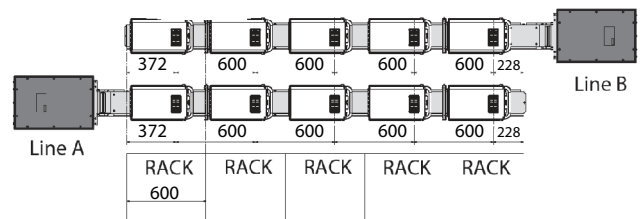


This way tap-off boxes are centered with the cabinet containing racks they should be connected with (see catalogue for detailed dedicated items). It allows, in case of failure, a rapid identification and intervention on the non-functioning rack.

Standard tap-off boxes are also suitable for installation in data centers. The straight elements for data centers are available with IP40 protection, which is suitable for installation in the white space.

Example of connection between the cabinet containing rack and straight element :

Connection between the cabinet containing 600 mm rack and busbar for a 3000 mm length straight element (with 5+5 outlet).



Line A:

FRONT side is dedicated to supply of power, BACK side for the backup.

Line B:

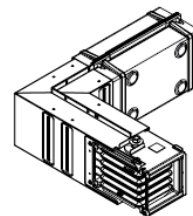
FRONT and BACK side are dedicated for backup.

**4.4 Routing components**

Routing components are supplied with their pre-installed monobloc. These elements enable any change of direction with standard or special solutions.

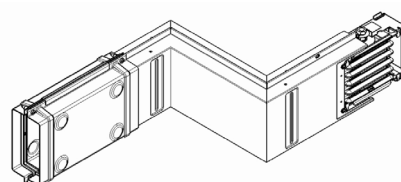
**Elbows**

Horizontal right/left and vertical right/left



**Double elbows (on request)**

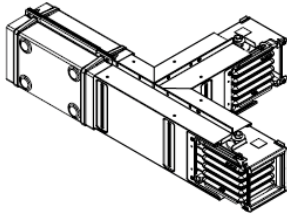
Horizontal, vertical, horizontal + vertical, vertical + horizontal



**4. COMPOSITION (continued)**

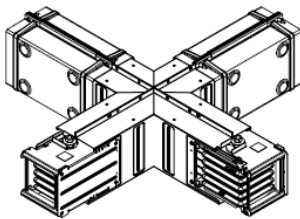
**Horizontal standard T elements**

Right and left (300+300+300 mm)



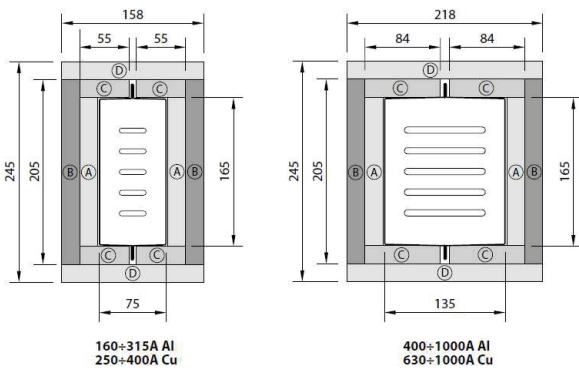
**Standard crossovers**

(300+300+300+300 mm)



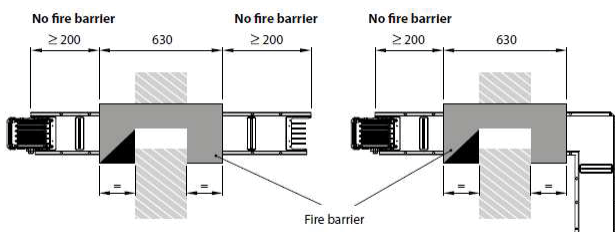
For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue.

■ **4.5 Fire barrier elements EI (EN 1366-3)**



When the busbar trunking system crosses fire resistant walls or ceilings, it must be fitted with appropriate fire barriers.

The fire barrier is 630 mm, it must always be positioned in the middle of the fire resistant wall or ceiling crossed by the busbar. It is therefore necessary to indicate at the order stage what elements will cross fire resistant walls or ceilings.



After crossing fire resistant walls or ceilings, any cavity must be sealed with material meeting current regulations for the required building fire resistance class.

In order to ensure the maximum resistance class it is necessary to fit at the factory an internal fire barrier.

To be comply to the Certification of Fire resistance it's necessary to install both internal and external fire barrier supplied by Legrand.

■ **4.6 Feed units**

The feed units are used at the end of the lines, when the busbar must be powered using cables.

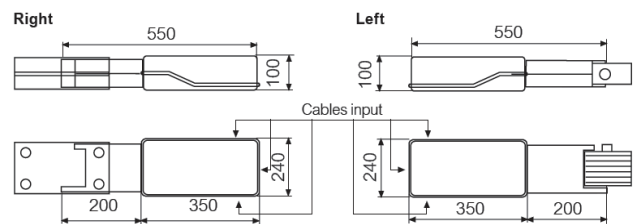
The XCM line can be provided with intermediate feed units or end feed units with a switch-disconnector which allows you to isolate the whole line for carrying out maintenance operations or layout changes, if required.

■ **Plastic feed unit (160A to 250A)**

for aluminium or copper busbar and in right or left type.



Dimensions:



The 160 and 250A feed units have terminals for cables up to 150mm<sup>2</sup>; for higher ratings, the cable connection to the feed unit requires cable lugs to be fastened to the provided spreaders

Cable connection maximum section : (3 x 120mm<sup>2</sup> + 1 x 70mm<sup>2</sup>) or (3 x 150mm<sup>2</sup>) max PG 48.

■ **Metal feed unit (160A to 1000A)**

for aluminium or copper busbar and in right, left or intermediate type.





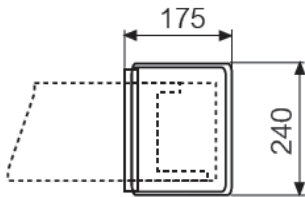
**4. COMPOSITION (continued)**

**■ 4.7 End cover IP 55**

The end cover suited for all XCM versions.



It is used to ensure the closure and the IP 55 protection degree (EN 60529) at the end of the line.



For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue

**5. ACCESSORIES**

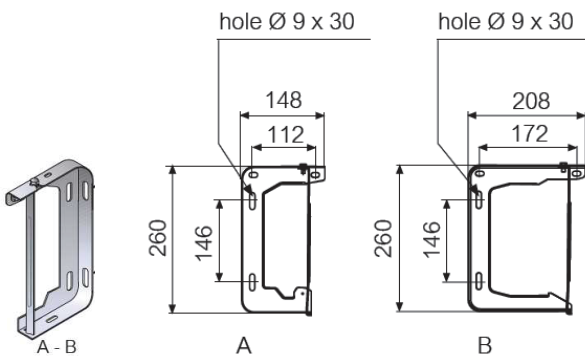
**■ 5.1 Brackets**

The brackets enable sturdy installation of the busbar to the system's support structures.

In order to fix the line to the structure of the building, directly or with wall/ceiling/beam supports, it is necessary to use the bracket support or vertical suspension supports.

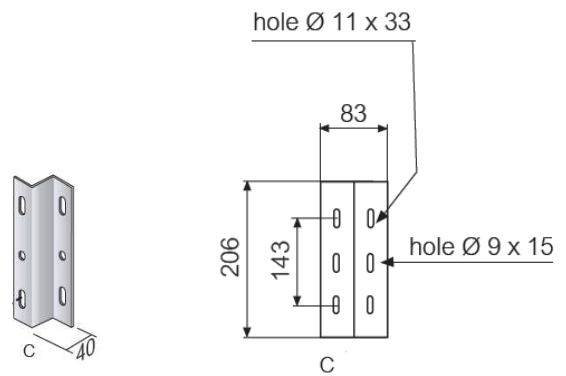
To have a clear vision concerning choosing criteria and installations rules, please see XCM catalogue, installation and user manual.

**Suspension brackets**



Compatibility with the busbar (per In [A])								
Aluminium	A	160	250	315	-	-	-	-
Copper		-	250	315	400	-	-	-
Aluminium	B	-	-	-	400	500	630	800
Copper		-	-	-	-	-	630	800

When the bracket needs to be fixed directly to the wall (40 mm), a wall spacer (C) is required.



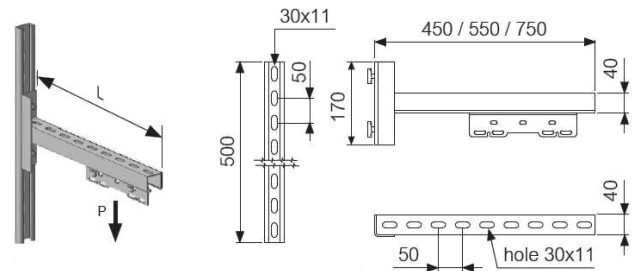
Dedicated suspension have been designed for:

- suspension bracket for vertical elements, suitable for riser mains up to 4 meters and for weights up to 300 kg. It is to be used together with type A and B brackets.

- suspension bracket with springs for riser mains. It is used in vertical applications. Use one bracket every 300 kg.

For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue.

**Wall fixing brackets**



Length (mm)	Maximum weight (kg)
450	80
550	68
750	50

For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue.

Depending on the capacity of the busbar, the quantity and the type of brackets being installed, checked that the selected distance (D) is the same or less than the maximum distance (Dmax) between two subsequent bracket with springs.

In(A)	D max (m)			
	XCM 4 conductors		XCM 5 conductors	
	Aluminium	Copper	Aluminium	Copper
<b>160</b>	19	-	19	-
<b>250</b>	19	17	18	16
<b>315</b>	18	16	17	15
<b>400</b>	15	13	15	12
<b>500</b>	14	-	13	-
<b>630</b>	13	10	12	9
<b>800</b>	13	9	12	8
<b>1000</b>	12	8	11	7

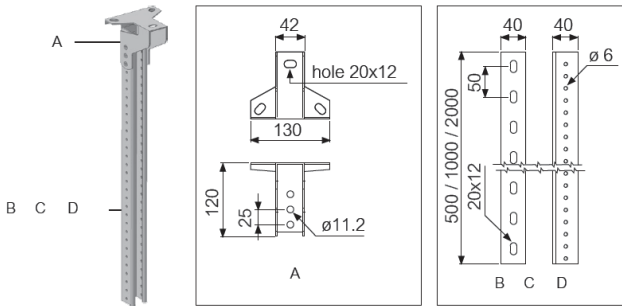


**5. ACCESSORIES (continued)**

The maximum load applicable to the brackets is 300 kg.  
 The values in the table have been calculated taking into consideration, in addition to the weight of the busbar, also the estimated weight of the accessories (25 kg for each element).

**Ceiling fixing bracket**

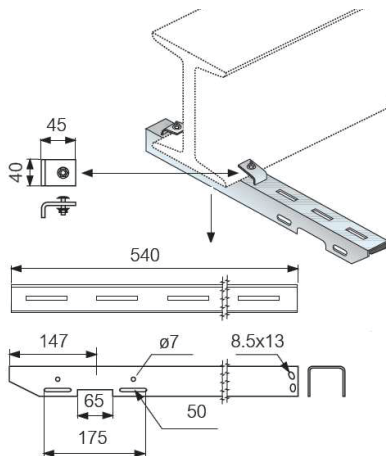
Ceiling fixing bracket with a base to be fixed to the ceiling and a drilled u-shaped section bar available in various lengths. The section bar holes are suitable for being installed with the XCM brackets.



- A = Ceiling flange
- B = U-shaped bar L= 500 mm
- C = U-shaped bar L= 1000 mm
- D = U-shaped bar L= 2000 mm

**Beam fixing brackets**

Bracket holder that has a bracket and two clamps that are hooked to the wings of the beam.



For more details, item per item, on the weights of specific outlet versions and for each current rating and material, please see XCM catalogue.

**■ 5.2 Tap-off boxes**

Tap-off boxes are used for energizing three-phase loads from 32A up to 1000A, suitable, in the new range, for both XCM, XCP-S and XCP-HP. They can be divided in two categories per rating:

- plug-in tap-off boxes;
- boxes bolted onto the connection.

Tap-off boxes are also available in fibre-glass or metal sheet and equipped with a sectioning cover that can be installed and removed when the busbar is energised. Both characterised by simple installation and fast connection thanks to the new layout of the hooks.

According to the rating, tap-off boxes can be divided in 3 types (for both fiberglass and metal):

- MCCB ready (63A to 250A) prepared for Legrand MCCB (not provided) and available with rotary handle already installed on the cover and rotary mechanism inside the box;
- with fuse carriers (32A to 250A) fuses not provided;
- and empty (32A to 250A).

**Plug-in tap-off boxes (32A up to 630A)**

Plug-in tap off boxes have IP 55 degree of protection without using additional accessories.

With plug-in tap-off boxes, it is possible to intervene up to a 32 A load, and to disconnect device integrated into the cover of the boxes with a rating from 63A to 630A, ensuring automatic absence of electric current when the cover is opened.

It is possible to padlock the box cover in the open disconnected position so that all maintenance operations of the loads connected to it can be carried out safely.

All insulating plastic components are in compliance with the IEC 60695-2-1 glow-wire test and rated V2 self-extinguishing according to the UL94

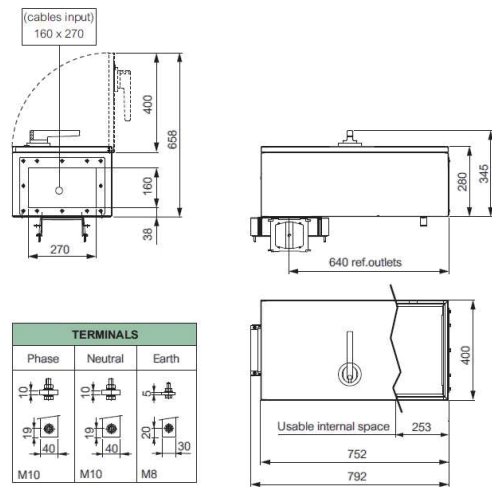
**Bolt-on tap-off boxes (from 630A to 1000A)**

Boxes bolted onto the connection are suited for high rated current. They ensure a rigid connection to the busbar by using of a monobloc junction similar to the straight element system.

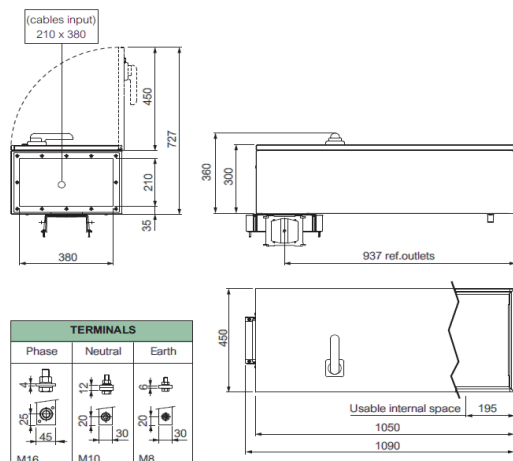
As this connection affects live conductors, it can not be carried out when the line is energized, but only if isolated. There are different item for aluminium and copper (see XCM catalogue for more details).

The typology involved are with fuse carriers.

**630A**



**800/1000A**



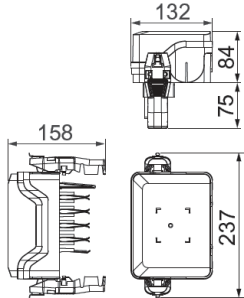
**5. ACCESSORIES (continued)**

For further mounting details on TOBs, please refer to XCM user and installation manual

**Fiber-glass tap-off boxes (32A to 250A)**

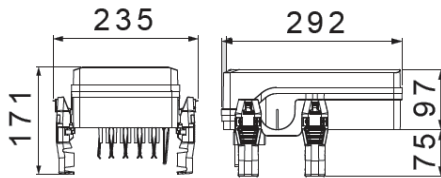
TYPE 1

32A – with fuse carriers



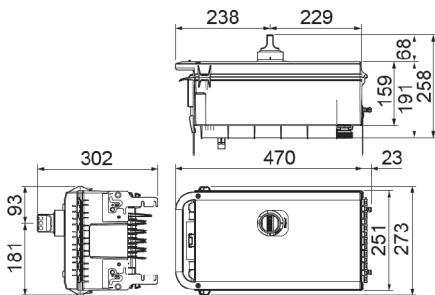
TYPE 1L

32A – empty

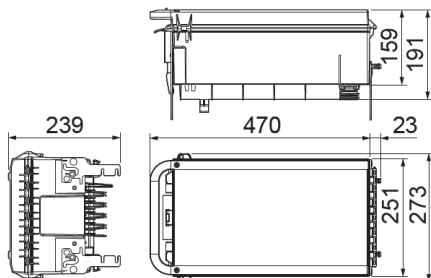


TYPE 2

63/ 160A – MCCB ready

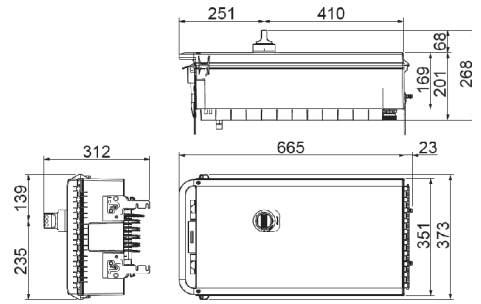


63/125/160A – with fuse carriers / empty

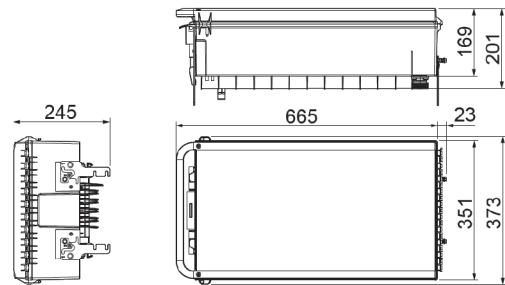


TYPE 3

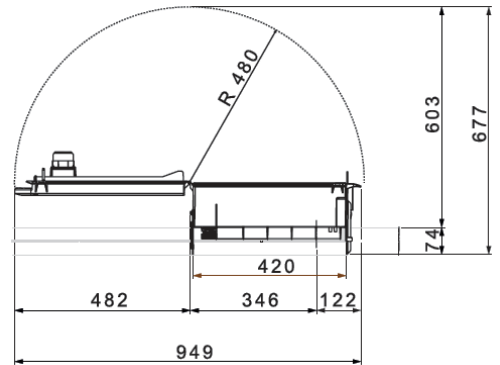
250A – MCCB ready



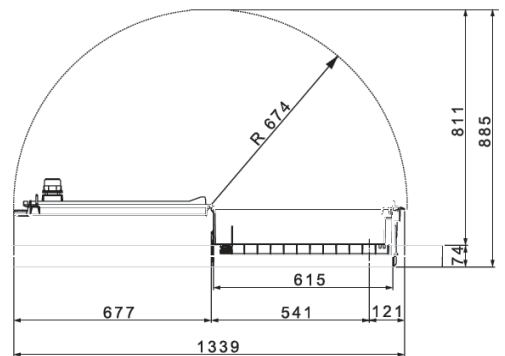
250A – with fuse carriers / empty



Total dimensions with cover open – Type 2



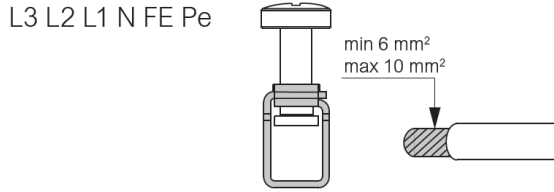
Total dimensions with cover open – Type 3





**5. ACCESSORIES (continued)**

Terminal dimension Type 1



For Type 2 and Type 3 size terminals, see metal tap-off boxes, taking into account that:

- Fibre-glass Type 2 terminals = metal Type 1 terminals
- Fibre-glass Type 3 terminals = metal Type 2 terminals

For further mounting details on TOBs, please refer to XCM user and installation manual

**Metal tap-off boxes (32A to 630A)**

Metal tap-off boxes are available in type :

- MCCB ready, prepared for Legrand MCCB (not provided)
- with fuse carriers IP 55 (fuses not provided)
- with switch fuses IP 55 (from 32A to 630A), equipped with a switch disconnecter (AC23) and a fuse carrier (fuses not included).

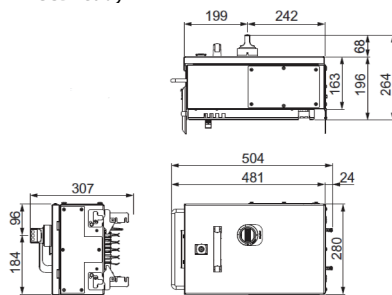
The disconnecter switch is operated through a rotary handle on the cover (not shown in the pictures).

Cover with AC21A disconnection: it is not possible to open, close, install or pullout the tap-off box if the switch is in ON position.

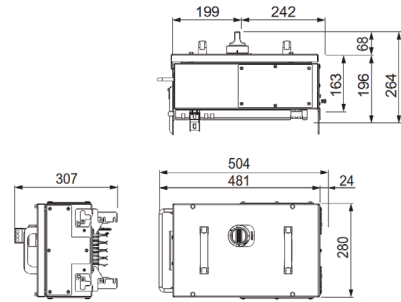
- Empty

Types	Ratings (A)					
	63	125	160	250	400	630
MCCB ready	1	1	1	2	3	3
With fuse carrier	1	1	1	2	3	3
With switch fuse	1	1	1-2	2	3	3
Empty	1	1	1	2	-	3

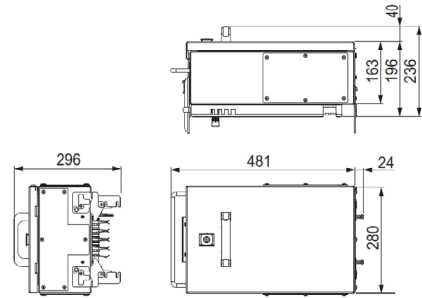
TYPE 1  
 63/125/160A – MCCB ready



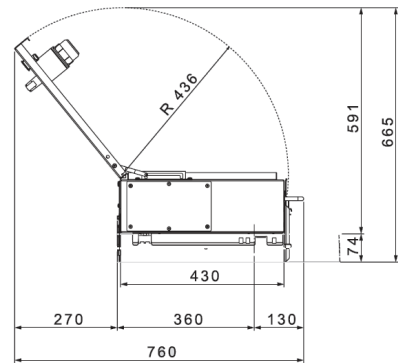
63/125/160A – MCCB ready (with removable cover)



125/160A – Empty and with fuse carriers

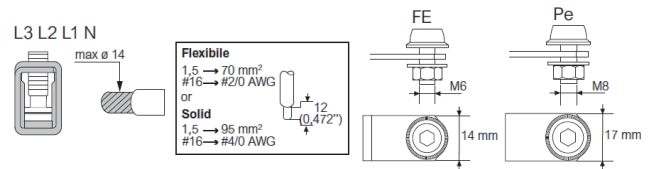


Total dimensions with cover open – Type 1

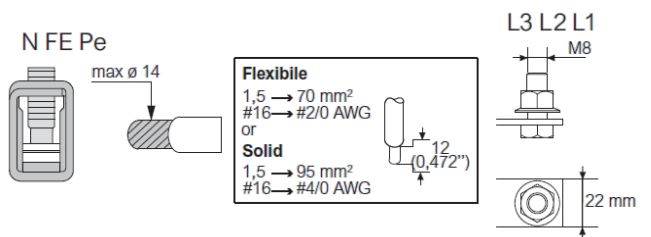


For further mounting details on TOBs, please refer to XCM user and installation manual.

Terminal dimension Type 1 – MCCB ready

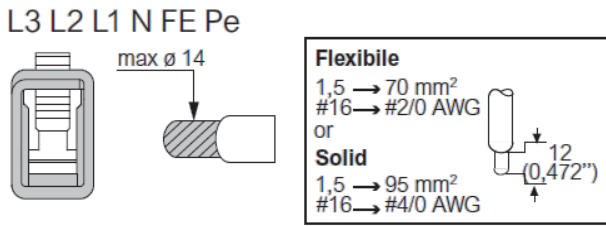


Terminal dimension Type 1 – with fuse carriers

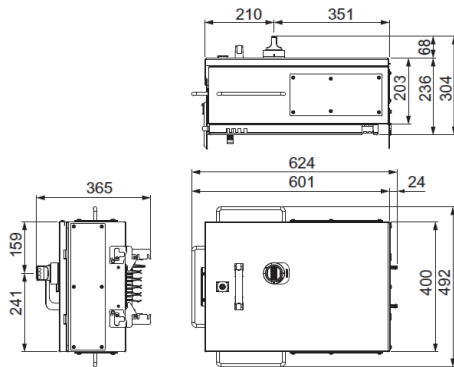


**5. ACCESSORIES (continued)**

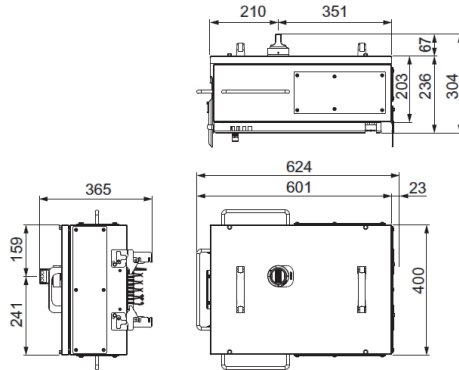
Terminal dimension Type 1 – empty



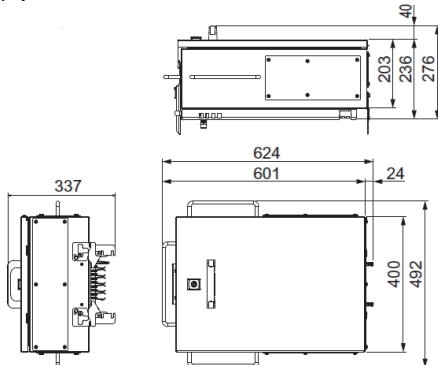
TYPE 2  
 250A – MCCB ready



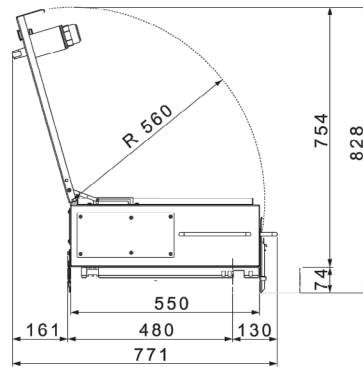
250A – MCCB ready (with removable cover)



250A – Empty and with fuse carriers

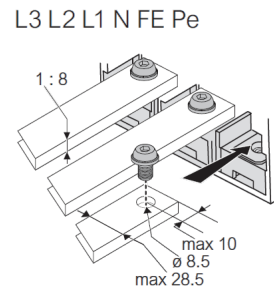


Total dimensions with cover open – Type 2



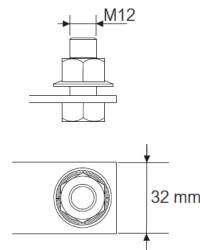
For further mounting details on TOBs, please refer to XCM user and installation manual

Terminal dimension Type 2 – MCCB ready and empty

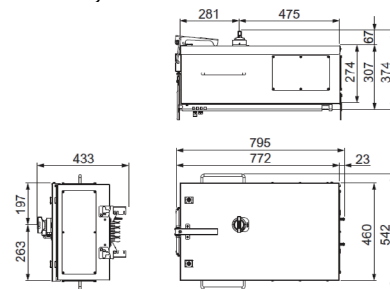


Terminal dimension Type 2 – with fuse carriers

L3 L2 L1 N FE Pe

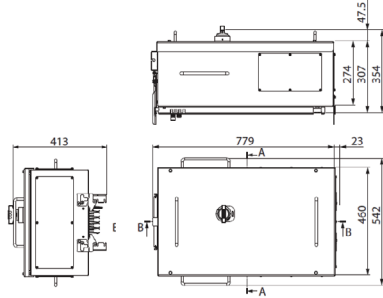


TYPE 3  
 400/630A – MCCB ready

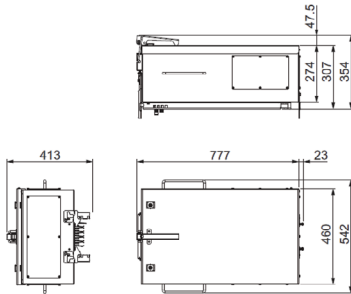


**5. ACCESSORIES (continued)**

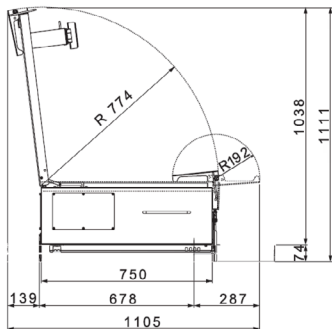
400/630A – MCCB ready (with removable cover)



400/630A – Empty and with fuse carriers

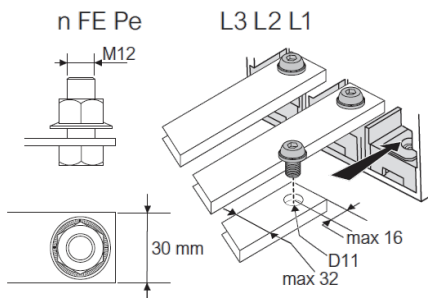


Total dimensions with cover open – Type 3

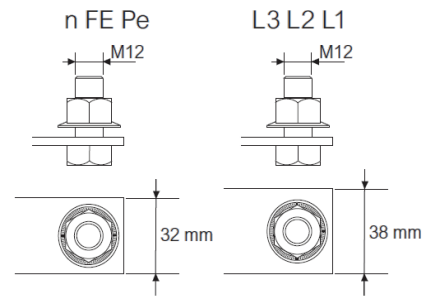


For further mounting details on tap-off boxes, please refer to XCM user and installation manual

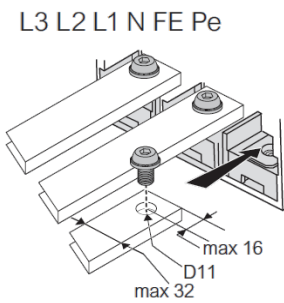
Terminal dimension Type 3 – MCCB ready



Terminal dimension Type 3 – with fuse carriers



Terminal dimension Type 3 – empty



**6. CONFORMITY**

XCM line has been given Type- Approval Certifications by the most prestigious Electro-technical agencies:

Certificate of Compliance with Standard: IEC 61439-6  
 GOST Type-Approval (Russia) In order to obtain these recognitions, the XCM range has undergone the following type tests, as confirmation of their quality:

- Fire Barrier Test
- IEC 60331-1 / CEI EN 50362 - Fire Resisting Test
- XCM product has been subjected to seismic tests in accordance with IEEE Std 693-2018 and consequently certified.

XCM is self-supporting and the degree of impact resistance of the casing which houses this line is the maximum stated in IEC EN60068-2-62: IK10

XCM busbar trunking systems are fire retardant in compliance with IEC 20-22 (IEC 332-3: 1992).

Product suitable for these climates:

- IEC 60068 2-11: Environmental tests Part 2-11: Tests – Test Ka: Salt mist.
- IEC 60068 2-30: Environmental tests Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)