

Xtra Compact (XCP-HP)

straight elements

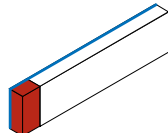


63280100P

XCP-HP Line:

Reference standard: IEC 61439-6. Reference temperature: up to 55 °C.
 Protection degree: IP55. Thickness of metal sheet: 1.5 mm.
 N° of conductors: 3, 4 or 5. Painted: RAL 7035. Halogen Free.
 The insulation between bars is ensured by a double sheet made with polyester film class B(130°C), class F (155°C) thermal resistance available on request. All plastic components have a V1 self-extinguishing degree (as per UL94); they are fire retardant and comply with the glow-wire test according to standards.

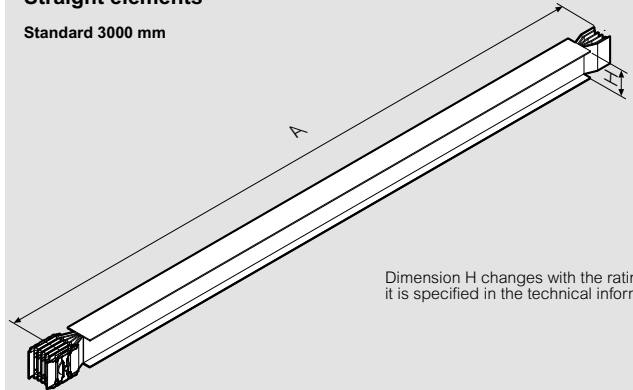
Item		Straight elements for transport	
Al	Cu	In (A)	A (mm)
63280100P	-	630	3000
63280101P	66280100P	800	
63280102P	66280101P	1000	
63280104P	66280103P	1250	
63280106P	66280105P	1600	
63280107P	66280106P	2000	
63390104P	66280108P	2500	
63390106P	66390105P	3200	
63390107P	66390106P	4000	
63390108P	66390108P	5000	
-	66390109P	6300	
63280110P	-	630	500-1000
63280111P	66280110P	800	
63280112P	66280111P	1000	
63280114P	66280113P	1250	
63280116P	66280115P	1600	
63280117P	66280116P	2000	
63390114P	66280118P	2500	
63390116P	66390115P	3200	
63390117P	66390116P	4000	
63390118P	66390118P	5000	
-	66390119P	6300	
63280170P	-	630	1001-1500
63280171P	66280170P	800	
63280172P	66280171P	1000	
63280174P	66280173P	1250	
63280176P	66280175P	1600	
63280177P	66280176P	2000	
63390174P	66280178P	2500	
63390176P	66390175P	3200	
63390177P	66390176P	4000	
63390178P	66390178P	5000	
-	66390179P	6300	
63280120P	-	630	1501-2000
63280121P	66280120P	800	
63280122P	66280121P	1000	
63280124P	66280123P	1250	
63280126P	66280125P	1600	
63280127P	66280126P	2000	
63390124P	66280128P	2500	
63390126P	66390125P	3200	
63390127P	66390126P	4000	
63390128P	66390128P	5000	
-	66390129P	6300	
63280180P	-	630	2001-2500
63280181P	66280180P	800	
63280182P	66280181P	1000	
63280184P	66280183P	1250	
63280186P	66280185P	1600	
63280187P	66280186P	2000	
63390184P	66280188P	2500	
63390186P	66390185P	3200	
63390187P	66390186P	4000	
63390188P	66390188P	5000	
-	66390189P	6300	



Dimensions

Straight elements

Standard 3000 mm



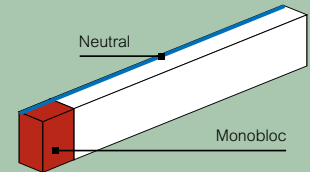
Dimension H changes with the ratings and it is specified in the technical information

MIN AND MAX DIMENSIONS OF SINGLE AND DOUBLE BAR	
Aluminium (Al)	630A – 5000A
Copper (Cu)	800A – 6300A
(L) min/MAX [mm]	500/3000

Straight elements are available on request only for transport of energy:
 Al: 5000A
 Cu: 6300A

Notes

The product versions in this catalogue will be simplified as shown opposite, highlighting the part with the monobloc installed in red and the neutral side in blue. In this catalogue, the measurements shown refer to the element centre distance



The range is also available in different versions on request: (5 conductors with dedicated PE conductor, double neutral and more others...)

Item		Straight elements for transport	
Al	Cu	In (A)	A (mm)
63280150P	-	630	2501-2999
63280151P	66280150P	800	
63280152P	66280151P	1000	
63280154P	66280153P	1250	
63280156P	66280155P	1600	
63280157P	66280156P	2000	
63390154P	66280158P	2500	
63390156P	66390155P	3200	
63390157P	66390156P	4000	
63390158P	66390158P	5000	
-	66390159P	6300	

	Single bar:	Double bar:	Triple bar:
	630A-2000A (Al) 800A-2500A (Cu)	2500A-4000A (Al) 3200A-5000A (Cu)	5000A (Al) 6300A (Cu)

Xtra Compact (XCP-HP)

technical data

XCP-HP AI (5 Conductors - clean earth)

3P+N+PE+FE	In [A]	SINGLE BAR						DOUBLE BAR			TRIPLE BAR
		630	800	1000	1250	1600	2000	2500	3200	4000	5000
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	Icw [kA] _{rms}	36	36	50	70	70	85	120	120	150	150
Peak current	Ipk [kA]	76	76	105	154	154	187	264	264	330	330
Allowable specific energy for three-phase fault	I²t [MA²s]	1296	1296	2500	4900	4900	7225	14400	14400	22500	22500
Rated short-time current of the neutral bar (1 s)	Icw [kA] _{rms}	22	22	30	42	42	51	72	72	90	90
Peak current of the neutral bar	Ipk [kA]	45	45	63	88	88	112	158	158	198	198
Rated short-time current of the protective circuit (1 s)	Icw [kA] _{rms}	22	22	30	42	42	51	72	72	90	90
Peak current of the protective circuit	Ipk [kA]	45	45	63	88	88	112	158	158	198	198
Phase resistance at 20°C	R20 [mΩ/m]	0,077	0,077	0,056	0,045	0,031	0,025	0,022	0,015	0,012	0,010
Phase reactance (50hz)	X [mΩ/m]	0,023	0,017	0,017	0,015	0,014	0,011	0,006	0,006	0,006	0,005
Phase impedance	Z [mΩ/m]	0,080	0,079	0,059	0,047	0,034	0,027	0,023	0,017	0,014	0,011
Phase resistance at thermal conditions	R [mΩ/m]	0,101	0,102	0,076	0,062	0,043	0,035	0,032	0,022	0,018	0,014
Phase impedance at thermal conditions	Z [mΩ/m]	0,104	0,103	0,078	0,064	0,045	0,037	0,032	0,023	0,019	0,015
Neutral resistance	R20 [mΩ/m]	0,077	0,077	0,056	0,045	0,031	0,025	0,022	0,015	0,012	0,010
Functional Earth resistance (FE)	R20 [mΩ/m]	0,077	0,077	0,056	0,045	0,031	0,025	0,022	0,015	0,012	0,010
Functional Earth reactance (FE)	X [mΩ/m]	0,023	0,017	0,017	0,015	0,014	0,011	0,006	0,006	0,006	0,005
Resistance of the protective bar (PE 1)	RPE [mΩ/m]	0,133	0,133	0,266	0,266	0,222	0,213	0,156	0,143	0,136	0,035
Resistance of the protective bar (PE 2)	RPE [mΩ/m]	0,049	0,049	0,049	0,049	0,032	0,029	0,019	0,016	0,014	0,010
Resistance of the protective bar (PE 3)	RPE [mΩ/m]	0,084	0,084	0,084	0,084	0,054	0,049	0,032	0,027	0,025	0,016
Reactance of the protective bar	XPE [mΩ/m]	0,080	0,078	0,078	0,048	0,039	0,028	0,020	0,015	0,016	0,014
Resistance of the fault loop (PE 1)	Ro [mΩ/m]	0,125	0,125	0,102	0,083	0,058	0,047	0,042	0,029	0,024	0,017
Resistance of the fault loop (PE 2)	Ro [mΩ/m]	0,107	0,107	0,082	0,069	0,047	0,038	0,033	0,023	0,019	0,014
Resistance of the fault loop (PE 3)	Ro [mΩ/m]	0,117	0,117	0,090	0,074	0,051	0,042	0,036	0,025	0,021	0,016
Reactance of the fault loop (50hz)	Xo [mΩ/m]	0,10	0,10	0,10	0,06	0,05	0,04	0,03	0,02	0,02	0,02
Impedance of the fault loop (PE 1)	Zo [mΩ/m]	0,162	0,157	0,140	0,105	0,079	0,061	0,049	0,036	0,032	0,026
Impedance of the fault loop (PE 2)	Zo [mΩ/m]	0,148	0,143	0,126	0,093	0,071	0,055	0,042	0,031	0,029	0,024
Impedance of the fault loop (PE 3)	Zo [mΩ/m]	0,156	0,151	0,131	0,097	0,073	0,057	0,044	0,033	0,030	0,025
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,102	0,102	0,075	0,060	0,041	0,033	0,030	0,021	0,017	0,013
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,031	0,023	0,023	0,020	0,019	0,015	0,008	0,008	0,008	0,007
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,107	0,105	0,078	0,063	0,045	0,036	0,031	0,022	0,018	0,014
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,102	0,102	0,075	0,060	0,041	0,033	0,030	0,021	0,017	0,013
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,031	0,023	0,023	0,020	0,019	0,015	0,008	0,008	0,008	0,007
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,107	0,105	0,078	0,063	0,045	0,036	0,031	0,022	0,018	0,014
Voltage drop with distributed load ΔV [V/(m*A)]10 ⁻⁶	cosφ = 0,70	75,6	72,1	56,5	47,0	34,7	27,9	23,0	17,2	14,6	11,5
	cosφ = 0,75	79,0	75,7	59,0	49,0	36,0	28,9	24,1	17,9	15,1	11,9
	cosφ = 0,80	82,1	79,2	61,3	50,9	37,1	29,9	25,1	18,5	15,6	12,2
	cosφ = 0,85	85,1	82,6	63,5	52,7	38,1	30,7	26,1	19,1	16,0	12,5
	cosφ = 0,90	87,7	85,6	65,5	54,2	38,8	31,3	27,0	19,6	16,3	12,7
	cosφ = 0,95	89,6	88,2	66,9	55,3	39,2	31,7	27,8	19,9	16,4	12,8
cosφ = 1,00	87,7	88,0	65,6	53,9	37,3	30,2	27,5	19,3	15,6	12,0	
Weight (PE 1)	p [kg/m]	17,5	17,5	19,7	21,7	28,8	33,6	42,8	54,4	62,9	102,2
Weight (PE 2)	p [kg/m]	20,8	20,8	23,0	25,0	34,0	39,3	51,5	64,7	74,2	119,2
Weight (PE 3)	p [kg/m]	21,0	18,6	20,8	22,7	30,5	35,5	45,6	57,7	66,6	107,8
Fire load	[kWh/m]	5,6	6,9	6,9	7,5	10,6	13,1	20,0	23,8	26,3	27,3
Degree of protection	IP	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*	55 /65*
Insulation material thermal resistance class		B/F**	B/F**	B/F**	B/F**	B/F**	B/F**	B/F**	B/F**	B/F**	B/F**
Losses for the Joule effect at nominal current	P [W/m]	121	195	227	292	330	418	596	683	863	1042
Ambient temperature min/ MAX (daily average)	[°C]	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70	-5/+70

* IP65 for feeder lines is available by request
 ** Class F available under request

For temperatures over 50°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the technical support.

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

