

# Xtra Compact (XCP-S)

## straight elements



64280100P

### XCP-S Line:

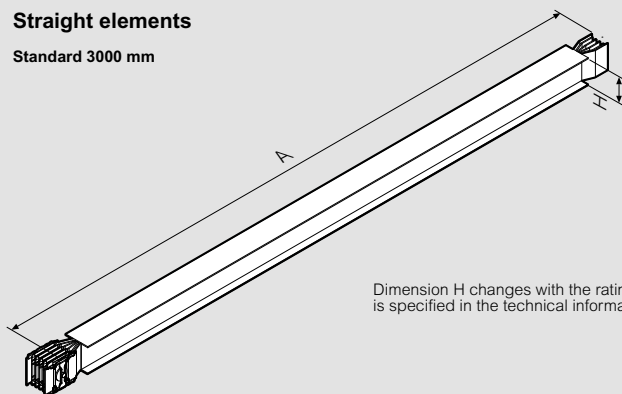
Reference standard: IEC 61439-6. Reference temperature: 35 °C.  
 Protection degree: IP55. Thickness of metal sheet: 1.5 mm.  
 N° of conductors: 3, 4 or 5. Painted: RAL 7035. Halogen Free.  
 The insulation between bars is ensured by a double sheet made with polyester film class B(130°C), class F (155°C) 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)
64280100P	-	630	3000
64280101P	67280100P	800	
64280102P	67280101P	1000	
64280104P	67280103P	1250	
64280106P	67280105P	1600	
64280107P	67280106P	2000	
64390104P	67390104P	2500	
64390106P	67390105P	3200	
64390107P	67390106P	4000	
64390108P	67390108P	5000	
-	67390109P	6300	
64280110P	-	630	500-1000
64280111P	67280110P	800	
64280112P	67280111P	1000	
64280114P	67280113P	1250	
64280116P	67280115P	1600	
64280117P	67280116P	2000	
64390114P	67390114P	2500	
64390116P	67390115P	3200	
64390117P	67390116P	4000	
64390118P	67390118P	5000	
-	67390119P	6300	
64280170P	-	630	1001-1500
64280171P	67280170P	800	
64280172P	67280171P	1000	
64280174P	67280173P	1250	
64280176P	67280175P	1600	
64280177P	67280176P	2000	
64390174P	67390174P	2500	
64390176P	67390175P	3200	
64390177P	67390176P	4000	
64390178P	67390178P	5000	
-	67390179P	6300	
64280120P	-	630	1501-2000
64280121P	67280120P	800	
64280122P	67280121P	1000	
64280124P	67280123P	1250	
64280126P	67280125P	1600	
64280127P	67280126P	2000	
64390124P	67390124P	2500	
64390126P	67390125P	3200	
64390127P	67390126P	4000	
64390128P	67390128P	5000	
-	67390129P	6300	
64280180P	-	630	2001-2500
64280181P	67280180P	800	
64280182P	67280181P	1000	
64280184P	67280183P	1250	
64280186P	67280185P	1600	
64280187P	67280186P	2000	
64390184P	67390184P	2500	
64390186P	67390185P	3200	
64390187P	67390186P	4000	
64390188P	67390188P	5000	
-	67390189P	6300	

### Dimensions

#### Straight elements

Standard 3000 mm



Dimension H changes with the ratings and 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

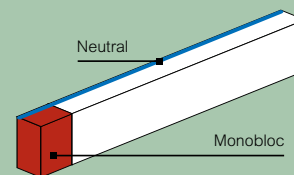
Straight elements are available on request only for transport of energy:

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)
64280150P	-	630	2501-2999
64280151P	67280150P	800	
64280152P	67280151P	1000	
64280154P	67280153P	1250	
64280156P	67280155P	1600	
64280157P	67280156P	2000	
64390154P	67390154P	2500	
64390156P	67390155P	3200	
64390157P	67390156P	4000	
64390158P	67390158P	5000	
-	67390159P	6300	



**Single bar:**  
630A-2000A (Al)  
800A-2000A (Cu)

**Double bar:**  
2500A-4000A (Al)  
2500A-5000A (Cu)

**Triple bar:**  
5000A (Al)  
6300A (Cu)

# Xtra Compact (XCP-S)

## technical data

### XCP-S AI (5 Conductors - double neutral)

3P+2N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
		630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated current	In [A]										
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 220	120 x 380	120 x 440	120 x 480	120 x 590
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] <sub>rms</sub>	25***	25***	36	42	42	50	65	80	100	120
Peak current	Ipk [kA]	53	53	76	88	88	105	143	176	220	264
Allowable specific energy for three-phase fault	I²t [MA²s]	312	312	1296	1764	1764	2500	4225	6400	10000	14400
Rated short-time current of the neutral bar (1 s)	Icw [kA] <sub>rms</sub>	15***	15***	22	25	25	30	39	48	60	72
Peak current of the neutral bar	Ipk [kA]	30	30	46	53	53	63	82	101	132	158
Rated short-time current of the protective circuit (1 s)	Icw [kA] <sub>rms</sub>	15***	15***	22	25	25	30	39	48	60	72
Peak current of the protective circuit	Ipk [kA]	30	30	46	53	53	63	82	101	132	158
Phase resistance at 20°C	R20 [mΩ/m]	0,140	0,092	0,077	0,057	0,041	0,029	0,029	0,021	0,014	0,011
Phase reactance (50hz)	X [mΩ/m]	0,023	0,017	0,017	0,016	0,015	0,014	0,011	0,007	0,006	0,005
Phase impedance	Z [mΩ/m]	0,142	0,094	0,079	0,060	0,044	0,032	0,031	0,022	0,016	0,012
Phase resistance at thermal conditions	R [mΩ/m]	0,185	0,122	0,104	0,080	0,058	0,040	0,041	0,030	0,021	0,015
Phase impedance at thermal conditions	Z [mΩ/m]	0,186	0,123	0,105	0,081	0,059	0,043	0,042	0,031	0,022	0,016
Neutral resistance	R20 [mΩ/m]	0,070	0,046	0,038	0,029	0,021	0,014	0,014	0,010	0,007	0,005
Resistance of the protective bar (PE 1)	RPE [mΩ/m]	0,132	0,132	0,132	0,119	0,110	0,106	0,078	0,071	0,067	0,040
Resistance of the protective bar (PE 2)	RPE [mΩ/m]	0,049	0,049	0,049	0,038	0,032	0,025	0,021	0,017	0,016	0,013
Resistance of the protective bar (PE 3)	RPE [mΩ/m]	0,084	0,084	0,084	0,064	0,054	0,049	0,035	0,029	0,026	0,021
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]	0,272	0,224	0,208	0,176	0,152	0,135	0,107	0,092	0,082	0,051
Resistance of the fault loop (PE 2)	Ro [mΩ/m]	0,190	0,142	0,126	0,095	0,073	0,054	0,049	0,038	0,030	0,023
Resistance of the fault loop (PE 3)	Ro [mΩ/m]	0,224	0,176	0,161	0,121	0,096	0,078	0,064	0,050	0,040	0,032
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]	0,291	0,243	0,229	0,188	0,161	0,142	0,111	0,094	0,085	0,054
Impedance of the fault loop (PE 2)	Zo [mΩ/m]	0,216	0,171	0,158	0,115	0,091	0,069	0,058	0,044	0,037	0,030
Impedance of the fault loop (PE 3)	Zo [mΩ/m]	0,247	0,200	0,187	0,137	0,110	0,089	0,071	0,054	0,046	0,037
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,117	0,077	0,064	0,048	0,034	0,024	0,024	0,017	0,012	0,009
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,019	0,014	0,014	0,013	0,013	0,012	0,009	0,006	0,005	0,004
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,118	0,078	0,066	0,050	0,037	0,027	0,026	0,018	0,013	0,010
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,178	0,162	0,157	0,138	0,124	0,116	0,088	0,078	0,072	0,044
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,031	0,023	0,023	0,021	0,020	0,019	0,015	0,009	0,008	0,007
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,181	0,164	0,159	0,140	0,126	0,117	0,089	0,079	0,073	0,044
Voltage drop with distributed load ΔV [V/(m²A)]10 <sup>-6</sup>	cosφ = 0,70	126,3	84,4	73,4	58,1	44,1	33,2	31,5	22,4	16,3	12,4
	cosφ = 0,75	133,3	88,9	77,1	60,8	45,9	34,3	32,8	23,3	17,0	12,9
	cosφ = 0,80	140,1	93,3	80,7	63,4	47,6	35,3	34,0	24,2	17,6	13,3
	cosφ = 0,85	146,6	97,5	84,1	65,9	49,2	36,1	35,1	25,1	18,1	13,6
	cosφ = 0,90	152,8	101,5	87,3	68,0	50,5	36,8	36,0	25,8	18,5	13,9
	cosφ = 0,95	158,4	104,9	90,0	69,8	51,4	37,0	36,5	26,4	18,8	14,0
	cosφ = 1,00	160,2	105,6	89,9	68,9	49,8	35,0	35,3	25,8	18,0	13,3
Weight (PE 1)	p [kg/m]	15,3	17,0	17,6	20,9	25,2	31,1	38,3	47,1	58,0	98,2
Weight (PE 2)	p [kg/m]	18,6	20,3	20,9	25,3	30,3	37,6	46,3	56,6	68,6	111,3
Weight (PE 3)	p [kg/m]	16,4	18,0	18,7	22,3	26,9	33,0	40,9	50,2	61,5	102,5
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]	220	234	311	373	442	485	765	914	1000	1154
Ambient temperature min/ MAX (daily average)	[°C]	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50

\* IP65 for feeder lines is available by request

\*\* Class F available under request

\*\*\* Icw value at 0,5 s.

For temperatures over 35°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.



PE 1  
Standard version



PE 2  
Extra earth - COPPER



PE 3  
Extra earth - ALUMINUM  
XCP AI 3L+N+50%PE  
(available on request)