



Engineering . Industry, transport of Energy, Connections

Mastering high currents

# ITEC.BAR™

PRODUCT DATA  
SHEET

P28A

## ITEC.BAR™ GD

PLUG-IN BUS DUCTS  
VERTICAL LINES

**Low power bus ducts**  
**Vertical lines into buildings**  
**Plug-in bus ducts for industry and services**



## MAIN FEATURES

**Ready to install busducts**, delivered with technical data sheet, drawing, installation and maintenance manual.

**Layout exactly customized to each project.**

**Conducteurs in aluminium or in copper** specially designed to reduce the skin effect and reactive losses.

**Aluminium housing**, for an optimal protection and a limitation of the electromagnetic field next to the bus duct.

**Protective conductor (PE)** by the aluminium housing with section always bigger than phase section. Possibility to have a dedicated conductor for the PE.

**Degree of protection** from IP 50 (basis version) to IP 55 with additional accessories.

Standard length of **straight elements 4 metres.**

Easy, efficient and quick connection between elements with **single clamping bolt.**

**Plug-in acces with retractable covers** every metre on each side of the bus duct in standard version. Possibility to have plug-in acces every 50 cm on the same side on request.

**Support by specific fixing hangers** for horizontal ou vertical lines.

Range of **Tap off boxes** from 32 to 1000 A, prefitted for fuses, for MCB or empty.

**Few adaptations to installation conditions** (climatic, temperature, specific constraints, fire breakers, etc.).

**In accordance with standards** CEI 61439-1, CEI 64439-6, CEI 60664, CEI 60529.

**Can be turnkey installed** by our specialized services.

## ITEC.BAR™ GD



### Technical data

Rated current	In	A	63	100	160	250	400	500	630	800	1000	1250	1600
Dimensions	D	mm	191x45	191x45	191x45	191x65	191x65	191x94	191x94	191x94	191x94	191x145	191x145
Rated voltage	Ue	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Insulation voltage	Ui	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f	Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Cross section phases	Sph	mm <sup>2</sup>	25	35	56	116	281	380	500	600	700	1000	1178
Cross section Neutral	Sn	mm <sup>2</sup>	25	35	56	116	281	380	500	600	700	1000	1178
Cross section PE (housing)	SPE	mm <sup>2</sup>	943	943	943	1083	1083	1232	1232	1232	1232	1780	1780
linear weight	M	Kg/m	3	3,1	3,3	4,4	6,2	7,7	9	10	11,3	14,7	16,6
Rated short-circuit time current (1 s)	ICW	kA	5	5	5	13	27	29	33	35	40	42	50
Peak short-circuit current	IPK	kA	10,5	10,5	10,5	26	57	61	70	77	84	92	110
Rated short-circuit time (1 s) of neutral	ICW	kA	3	3	3	8,5	17	20	22	22	22	25	33
Peak short-circuit current of neutral	IPK	kA	6,3	6,3	6,3	17	34	40	46	46	46	55	67
Phase resistance (T=20°C)	R20	mΩ/m	1,284	0,917	0,573	0,261	0,112	0,072	0,065	0,052	0,048	0,030	0,026
Phase reactance	X	mΩ/m	0,093	0,093	0,093	0,135	0,093	0,059	0,063	0,062	0,059	0,0428	0,0428
Phase impedance (T=20°C)	Z20	mΩ/m	1,287	0,922	0,581	0,356	0,170	0,110	0,107	0,091	0,084	0,053	0,0578
Resistance of the fault loop	R0	mΩ/m	1,321	0,954	0,610	0,395	0,203	0,195	0,178	0,176	0,174	0,025	0,0207
Reactance of the fault loop	X0	mΩ/m	0,208	0,208	0,208	0,117	0,116	0,112	0,108	0,103	0,098	0,049	0,049
Impedance of the fault loop	Z0	mΩ/m	1,338	0,976	0,644	0,412	0,234	0,224	0,208	0,204	0,200	0,055	0,0532
Degree of protection	IP		50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55	50/55
Losses by Joule effect	Pj	Kj/m	15,3	27,5	44	48,94	53,76	54,00	77,40	99,20	144,0	140,6	199,7
voltage drop cosφ = 1	ΔU	mV/m	42,07	49,63	53,68	56,44	38,75	31,14	35,42	35,75	41,41	32,5	41,6
voltage drop cosφ = 0,9	ΔU	mV/m	47,46	55,61	59,38	63,52	48,91	39,15	46,84	50,88	59,46	49,4	63,3
voltage drop cosφ = 0,8	ΔU	mV/m	52,39	61,03	64,48	62,67	50,32	40,22	48,94	54,35	63,67	53,8	68,8

Coefficient K for thermal correction of rating current in function of the ambient temperature in average 24 H

	10°C	15°C	18°C	20°C	25°C	30°C	35°C	43°C	50°C	55°C
K	1,20	1,19	1,18	1,17	1,14	1,10	1	1	0,90	0,64