

ZNH-A.X

Aluminum Body Ex e Terminal Boxes



Installation

Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

Classification

Group II - Category 2G 2D

Application

Oil refineries, Chemical and petrochemical plants, Boiler rooms, Offshore and onshore plants, Farm produce

Technical

Certification	SCA 26 ATEX 585X
Marking	II 2G Ex eb IIC T6/T5* Gb II 2D Ex tb IIIC T55°C/T75°C* Db
Ambiant Temp.	-20 °C up to +55 °C / -20 °C up to +40 °C <i>* Refer to the table below for temperature class values.</i>
IP	IP 66
Standarts	EN60079-0: 2018; EN 60079-7:2015/A1:2018; EN60079-31: 2014

Electrical

Rated Voltage	Up to 1000V
Rated Current	Up to 312A
Frequency	50/60 Hz
Terminal Cross-Section	Btw. 1.5 mm ² and 300 mm ²

Mechanical characteristics

Body	Low Copper Aluminium Alloy
Cover	Low Copper Aluminium Alloy
Gaskets	NBR oring on cover
Screws	Stainless Steel
Paint	Electrostatic Powder Coat
Internal Plate	Galvanized or Stainless Steel

On request

- Cable glands and plugs
- Drain and breather valves

Temperature Classification

T ambient	ZNH-A.185	ZNH-A.200	ZNH-A.270	ZNH-A.330	ZNH-A.480	ZNH-A.625
-20°C to +40°C	T6 / T55	T6 / T55	T6 / T60	T6 / T55	T6 / T55	T6 / T55
-20°C to +55°C	T5 / T70	T5 / T70	T5 / T75	T5 / T70	T6 / T70	T6 / T70

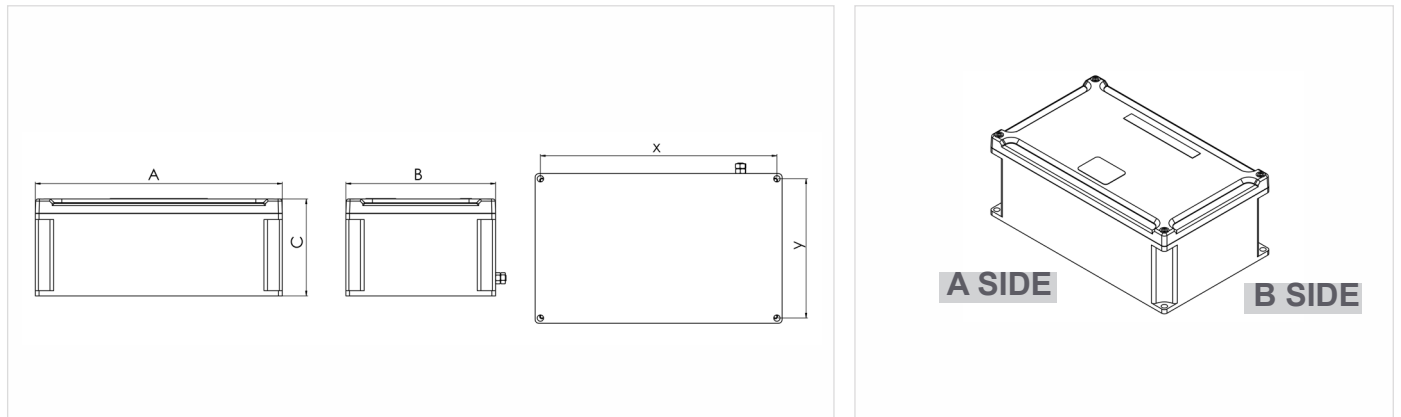
The ZNH-A Series is a range of Ex e aluminum terminal boxes designed for safe and reliable electrical connections in hazardous areas. With its robust aluminum enclosure and practical design, the series provides a flexible solution for various industrial applications.

Available in six different enclosure sizes, the ZNH-A Series can be configured to meet different terminal and connection requirements.

Variants, Dimentions, Weight

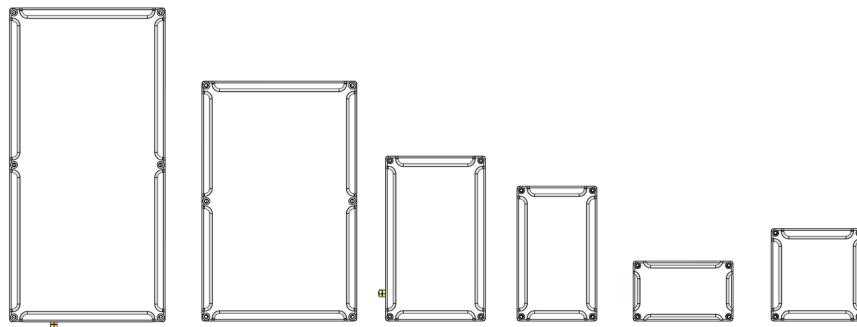
Order Code	Product Code	A [mm]	B [mm]	C [mm]	Wall Thickness	x [mm]	y [mm]	Mounting Hole [mm]	Weight [kg]	Internal Plate [mm]
102401	ZNH-A.185	185	185	110	7 mm	171	171	6,5		160x160
102402	ZNH-A.200	200	120	110	7 mm	186	106	6,5		175x95
102403	ZNH-A.270	270	160	120	7 mm	256	146	8,5		245x135
102404	ZNH-A.330	330	200	130	7 mm	316	186	8,5		300x170
102405	ZNH-A.480	480	310	170	7 mm	466	296	8,5		450x280
102406	ZNH-A.625	625	310	170	7 mm	611	296	8,5		590x275

Note: The weights shown in the table exclude accessories such as cable glands, blanking plugs, and terminals.



Number of Holes

	B SIDE (short side)								A SIDE (long side)							
	M16	M20	M25	M32	M40	M50	M63	M75	M16	M20	M25	M32	M40	M50	M63	M75
ZNH-A.185	5	4	3	2	1	1	-	-	5	4	3	2	1	1	-	-
ZNH-A.200	2	2	1	1	-	-	-	-	12	11	8	4	3	1	1	1
ZNH-A.270	4	4	2	1	1	-	-	-	21	18	9	7	3	2	1	1
ZNH-A.330	12	11	8	4	3	1	1	1	24	21	14	12	7	3	2	2
ZNH-A.480	32	28	15	15	8	3	2	1	48	40	24	18	12	6	2	2
ZNH-A.625	28	20	16	12	8	2	2	1	56	46	36	28	15	6	4	2



Procedure for Determining the Number of Terminal Blocks in Junction Boxes According to Conductor Cross-Section and Current Rating

- Provided that technical dimensions and limitations are observed, terminal blocks suitable for these areas may be used, as long as they fit within the enclosure.
- Fitting in this unfilled area is not covered by this certification.

For certain applications, terminals of different cross-sections may need to be installed within the same terminal box. The tables and examples below illustrate how such configurations can be evaluated. The maximum number of terminals that can be installed in a given terminal box is determined based on 100% utilization of the maximum permissible power dissipation of that enclosure.

Sample - 1 -- ZNH-A.270				Sample - 2 -- ZNH-A.330			
Cross-Section (mm²)	Current (A)	Number of Terminals	Max. Load = 100%	Cross-Section (mm²)	Current (A)	Number of Terminals	Max. Load = 100%
1,5	10	8 (max: 19)	42%	1,5	10	10 (max:21)	48%
2,5	15	3 (max: 13)	23%	2,5	15	4 (max: 13)	31%
4	21	4 (max:12)	33%	4	21	5 (max:14)	36%
			98%				114%

In Example 2, the total calculated load exceeds the maximum allowable value of 100%. This indicates that the required terminal configuration cannot be accommodated in the selected terminal box. In this case, a larger terminal box must be selected and the calculation repeated. The enclosure size should be increased until the total calculated load remains at or below 100%.

ZNH-A.185							
Current (A)	Cross-sectional area in mm²						
	1,5	2,5	4	6	10	16	25
1							
8	22	34					
10	13	22	30				
11	12	18	25	33			
15		11	15	18	26		
21			8	10	14	20	24
26				8	10	13	16
37					5	8	8
49						5	5
67							2

ZNH-A.200							
Current (A)	Cross-sectional area in mm²						
	1,5	2,5	4	6	10	16	25
1							
8	19	31					
10	12	20	28				
11	10	16	24	31			
15		9	13	16	24		
21			7	9	13	18	22
26				6	8	11	14
37					4	5	7
49						3	4
67							2

ZNH-A.270							
Current (A)	Cross-sectional area in mm²						
	1,5	2,5	4	6	10	16	25
1							
8	28	47	67				
10	19	29	44	60	90		
11	16	25	36	50	75		
15		13	20	26	40	56	79
21			12	13	20	29	40
26				10	13	20	26
37					8	9	14
49						6	8
67							4

ZNH-A.330							
Current (A)	Cross-sectional area in mm²						
	1,5	2,5	4	6	10	16	25
1							
8	30	49	72	90	135		
10	21	30	46	57	88		
11	16	26	38	48	72	100	
15		13	25	25	37	56	79
21			14	12	20	27	40
26				8	11	18	26
37					7	9	12
49						5	7
67							4

ZNH-A.480

Current (A)	Cross-sectional area in mm ²															
	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
1																
8	38	63	96	136	212	311										
10	24	41	62	87	135	199	287									
11	20	34	51	72	112	164	238	308								
15		18	27	38	60	89	128	166	209							
21			14	20	31	45	65	85	107	141						
26				13	20	29	43	56	69	92	116					
37					10	14	21	27	35	45	57	67				
49						8	12	16	20	26	32	38	44	51		
67							7	8	11	14	17	20	23	27	32	
80								6	8	10	12	14	17	19	23	17
98									5	7	8	10	11	13	15	11
122										5	5	6	7	8	10	11
147											4	5	5	6	7	8
175												3	4	4	5	5
196													3	3	4	5
227														2	3	3
270															2	2
312																2

ZNH-A.625

Current (A)	Cross-sectional area in mm ²															
	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
1																
8	47	78	120	172	270	401										
10	30	50	77	110	173	257	375									
11	25	42	64	90	143	212	310	406								
15		22	34	49	77	114	166	218	277							
21			18	25	39	58	85	111	141	189						
26				16	26	38	55	73	92	123	157					
37					13	18	27	36	46	61	78	92				
49						10	16	21	26	34	44	52	61			
67							8	11	14	18	23	28	33	38		
80								8	10	13	17	20	23	26	32	25
98									6	9	11	13	15	18	21	16
122										7	9	10	11	14	14	16
147											5	6	6	8	10	11
175												4	5	6	6	8
196													4	5	6	6
227														3	4	5
270															2	3
312																2