

Enclosure: Junction Box with Terminals (Stainless Steel), JBE2 Series

Increased Safety and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Application

JBE2 junction boxes are designed for use in instrumentation, control, and distribution panels. They are suitable for housing Ex e increased safety equipment or Ex i intrinsically safe terminal blocks in hazardous areas, including Zones 1, 2, 21, and 22.

Specification

Housing material : Stainless steel, SS 304 or SS 316
1.2, 1.5 or 2.0 mm thickness
Sealing gasket : Neoprene (CR)
Bolts : Stainless steel, SS 304 or SS 316

Electrical Rating

Rated voltage : up to 750 V (non-intrinsic safe circuit)
up to 375 V (intrinsic safe circuit)
Rated current : up to 125 A
(depending on type of terminal used)

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex e II 2G	Ex tD II 2D
Symbol of Protection	Ex e II T6/T5 or Ex e ib IIC T6/T5	Ex tD A21 IP66 T80°C/ T95°C
Certificate	PTB 07 ATEX 1073	
Conformity to Standards	EN IEC 60079-0, EN IEC 60079-7, EN 60079-11, EN IEC 60079-31	
Ambient Temperature	-20°C to +55°C	
Index of Protection	IP66	
Entry Threads	Metric threads (recommend for IP66)	
Mounting	Wall mount	

Catalogue Number Logic

Series	Housing material	Size
4	Stainless steel, SS 304	(see catalogue number table)
6	Stainless steel, SS 316	

Dimensions

Entry	Entry plate drill hole
M20x1.5	Ø21.5 mm
M25x1.5	Ø27.0 mm
M32x1.5	Ø33.5 mm
M40x1.5	Ø42.5 mm
M50x1.5	Ø50.5 mm

Ordering Requirements and Dimensions

Cat. No.	Maximum entries thread size (Metric)					Dimensions in mm												Thk.	Empty weight (kg)
						Internal		External				Mounting			Fitting area				
	M20x1.5	M25x1.5	M32x1.5	M40x1.5	M50x1.5	a	b	c	d	e	f	g	h	i	QA	QB			
JBE2□-2424	7	7	5	3	2	190	190	240	240	180	185	150	270	10	150	230	1.2	5.15	
JBE2□-2533	9	9	8	4	3	200	280	250	330	180	185	160	360	10	150	320	1.2	6.25	
JBE2□-2742	20	20	17	8	7	220	370	270	420	235	240	180	450	10	205	410	1.5	6.55	
JBE2□-3043	20	20	17	8	7	250	385	300	435	235	240	210	465	10	205	425	1.5	8.58	
JBE2□-3243	26	26	22	10	7	270	385	320	435	270	275	230	465	10	240	425	1.5	9.65	
JBE2□-3447	30	30	24	12	8	290	420	340	470	270	275	230	640	10	240	460	1.5	11.58	
JBE2□-3261	38	38	32	16	10	270	560	320	610	270	275	250	500	10	240	600	2.0	16.55	
JBE2□-3465	42	42	36	12	11	290	600	340	650	270	275	250	680	10	240	640	2.0	17.65	
JBE2□-3670	46	46	38	14	12	310	650	360	700	270	275	270	730	10	240	690	2.0	20.15	
JBE2□-3675	50	50	42	16	13	310	700	360	750	270	275	270	780	10	240	740	2.0	24.15	
JBE2□-3880	54	52	44	16	14	330	750	380	800	270	275	290	830	10	240	790	2.0	32.25	
JBE2□-4085	56	56	48	18	15	350	800	400	850	270	275	310	880	10	240	840	2.0	35.65	

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Terminal Selection Chart

TB model	Rated current	Rated voltage	Wire size range	Maximum numbers of terminals (Respective to the temperature class)					
				JBE2 □ -2424	JBE2 □ -2533	JBE2 □ -2742	JBE2 □ -3043	JBE2 □ -3243	JBE2 □ -3447

Brand: Entelec

ZS4	32 A	630 V	0.5-4.0 mm ²	12	26	40	48	56	64
ZS6	41 A	630 V	0.5-6.0 mm ²	8	18	28	36	40	48
ZS10	57 A	630 V	1.5-10.0 mm ²	6	14	24	28	32	36
ZS16	76 A	630 V	1.5-16.0 mm ²	4	12	18	18	18	24
ZS35	125 A	630 V	6.0-35.0 mm ²	–	4	4	12	12	14

Brand: Weidmüller

WDU2.5	21 A	550 V	0.5-2.5 mm ²	14	30	48	60	68	76
WDU4	28 A	550 V	0.5-4.0 mm ²	12	26	40	48	56	64
WDU6	36 A	550 V	0.5-6.0 mm ²	8	18	28	36	40	48
WDU10	50 A	550 V	1.5-10.0 mm ²	6	14	24	28	32	36
WDU16	66 A	690 V	1.5-16.0 mm ²	4	12	18	18	18	24
WDU35	109 A	690 V	2.5-35.0 mm ²	–	4	4	12	12	14

JBE2 □ -3261	JBE2 □ -3465	JBE2 □ -3670	JBE2 □ -3675	JBE2 □ -3880	JBE2 □ -4085
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Brand: Entelec

ZS4	32 A	630 V	0.5-4.0 mm ²	84	90	102	112	132	140
ZS6	41 A	630 V	0.5-6.0 mm ²	60	66	72	84	100	104
ZS10	57 A	630 V	1.5-10.0 mm ²	42	48	60	68	76	84
ZS16	76 A	630 V	1.5-16.0 mm ²	20	24	28	42	76	84
ZS35	125 A	630 V	6.0-35.0 mm ²	16	20	20	20	30	36

Brand: Weidmüller

WDU2.5	21 A	550 V	0.5-2.5 mm ²	96	108	126	136	156	168
WDU4	28 A	550 V	0.5-4.0 mm ²	84	90	102	112	132	140
WDU6	36 A	550 V	0.5-6.0 mm ²	60	66	72	84	100	104
WDU10	50 A	550 V	1.5-10.0 mm ²	42	48	60	68	76	84
WDU16	66 A	690 V	1.5-16.0 mm ²	20	24	28	42	76	84
WDU35	109 A	690 V	2.5-35.0 mm ²	16	20	20	20	30	36





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Maximum number of terminals permitted for load current

Current (A)	Cross-section in mm. ²							JBE2 □-2424
	1.5	2.5	4	6	10	16		
10	87							In this area any number of terminals can be added to maximum physical content.
16	30	58	224					
20	12	33	65					
25		16	37	71				
35			10	28	69			
50				4	22	57		Fitting in this area is not allowed.
63					7	26		
80						10		
100								
125								

Current (A)	Cross-section in mm. ²								JBE2 □-2533
	1.5	2.5	4	6	10	16	25	35	
10	92								In this area any number of terminals can be added to maximum physical content.
16	31	61	238						
20	13	36	69						
25		17	39	75					
35			11	29	73				
50				4	24	60			Fitting in this area is not allowed.
63					8	28	100		
80						10	31	112	
100							13	29	
125								12	

Current (A)	Cross-section in mm. ²								JBE2 □-2742
	1.5	2.5	4	6	10	16	25	35	
10	112								In this area any number of terminals can be added to maximum physical content.
16	38	75	291						
20	16	43	84						
25		20	48	92					
35			14	36	89				
50				5	29	74			Fitting in this area is not allowed.
63					10	34	122		
80						13	38	136	
100							16	36	
125								14	

Current (A)	Cross-section in mm. ²								JBE2 □-3043
	1.5	2.5	4	6	10	16	25	35	
10	117								In this area any number of terminals can be added to maximum physical content.
16	40	78	302						
20	16	45	87						
25		21	49	95					
35			14	37	93				
50				5	30	77			Fitting in this area is not allowed.
63					10	36	127		
80						13	39	142	
100							17	37	
125								15	

Current (A)	Cross-section in mm. ²								JBE2 □-3243
	1.5	2.5	4	6	10	16	25	35	
10	129								In this area any number of terminals can be added to maximum physical content.
16	44	86	334						
20	18	50	97						
25		24	55	106					
35			16	41	103				
50				6	33	85			Fitting in this area is not allowed.
63					11	39	140		
80						15	44	157	
100							19	41	
125								2	16

Current (A)	Cross-section in mm. ²								JBE2 □-3447
	1.5	2.5	4	6	10	16	25	35	
10	132								In this area any number of terminals can be added to maximum physical content.
16	45	88	341						
20	18	51	99						
25		24	56	108					
35			16	42	105				
50				6	34	87			Fitting in this area is not allowed.
63					11	40	143		
80						15	45	160	
100							19	42	
125								2	17

Current (A)	Cross-section in mm. ²								JBE2 □-3261
	1.5	2.5	4	6	10	16	25	35	
10	133								In this area any number of terminals can be added to maximum physical content.
16	45	88	343						
20	19	51	99						
25		24	56	108					
35			16	42	105				
50				6	34	87			Fitting in this area is not allowed.
63					11	40	144		
80						15	45	161	
100							19	42	
125								2	17

Current (A)	Cross-section in mm. ²								JBE2 □-3465
	1.5	2.5	4	6	10	16	25	35	
10	135								In this area any number of terminals can be added to maximum physical content.
16	46	90	350						
20	19	52	101						
25		25	57	111					
35			17	43	108				
50				6	35	89			Fitting in this area is not allowed.
63					12	41	147		
80						16	46	164	
100							19	43	
125								2	17

Current (A)	Cross-section in mm. ²								JBE2 □-3670
	1.5	2.5	4	6	10	16	25	35	
10	139								In this area any number of terminals can be added to maximum physical content.
16	48	92	359						
20	20	54	104						
25		25	59	114					
35			17	44	110				
50				6	36	91			Fitting in this area is not allowed.
63					12	42	151		
80						16	47	169	
100							20	44	
125								2	18

Current (A)	Cross-section in mm. ²								JBE2 □-3675
	1.5	2.5	4	6	10	16	25	35	
10	139								In this area any number of terminals can be added to maximum physical content.
16	48	93	360						
20	20	54	104						
25		25	59	114					
35			17	44	111				
50				6	36	91			Fitting in this area is not allowed.
63					12	42	151		
80						16	47	169	
100							20	44	
125								2	18

Current (A)	Cross-section in mm. ²								JBE2 □-3880
	1.5	2.5	4	6	10	16	25	35	
10	143								In this area any number of terminals can be added to maximum physical content.
16	49	95	369						
20	20	55	107						
25		26	61	117					
35			18	46	113				
50				6	37	94			Fitting in this area is not allowed.
63					12	44	155		
80						16	48	173	
100							21	46	
125								2	18

Current (A)	Cross-section in mm. ²								JBE2 □-4085
	1.5	2.5	4	6	10	16	25	35	
10	147								In this area any number of terminals can be added to maximum physical content.
16	50	97	379						
20	21	57	110						
25		27	62	120					
35			18	47	116				
50				7	38	96			Fitting in this area is not allowed.
63					13	45	159		
80						17	50	178	
100							21	47	
125								2	19

