

# ESI junction and terminal boxes current load value tables

Ex e Stainless Steel enclosure for Zone 1/2/21/22



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When choosing the unassigned continuous currents for the cross sections, the maximum charge currents of the clamps used and the connected cables and conductors are to be observed. Conductors, in the interior of the housings equipped as in the table above, must be qualified for a temperature of between 70 to 80 °C.

In case of using values in the table, the simultaneous or charge factors comprising IEC 439 must be kept in mind.

### Area of limitation

- (1) Maximum count of conductors, dependent on the cross section and the allowed continuous current from the above mentioned housing size. Each established router and each internal connection conductor counts as a conductor, bridges and protection conductors are not counted.
- (2) In this area under compliance with the instructions and the defined installation dimensions in the housing there can be an maximum number of elements as physically possible following relevant standards.
- (3) The assembly in this area requires an additional temperature rise test from manufacturer.

Mixing of assemblies with circuits of varying cross sections and currents is possible with a use of the proportionately adjusted table values.

### Example

Cross section/mm <sup>2</sup>	Current/A	Number	Workload
2,5	16	10 (of 30)	33 %
16	50	12 (of 48)	25 %
25	63	36 (of 90)	40 %
<b>Total</b>			<b>98 % &lt; 100%</b>

Different types of equipment with smaller or larger cross sections than used in this supplementary sheet were not measured. They are to be specially considered in connection with the permissible flows, and require, in any case, a measurement (warming verification).

### Service Address

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## Current Load value tables

Housing size in mm L(W) = 100 ; W(H) = 100 ; H(D) = 60

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	19	35														
16	7	13	22													
20	3	8	14													
25		4	8													
35			2													
50																
63													(2)			
80																
100																
125																
160																
200																
225																
250									(3)							
315																
400																
500																(1)

Housing size in mm L(W) = 150 ; W(H) = 150 ; H(D) = 80

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	27	50														
16	10	19	31													
20	4	11	19	33												
25		5	12	20												
35			3	9	18											
50					7											
63					2								(2)			
80																
100																
125																
160																
200																
225																
250									(3)							
315																
400																
500																(1)

Housing size in mm L(W) = 150 ; W(H) = 150 ; H(D) = 100

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	31	56														
16	12	21	35													
20	5	13	22	37												
25		6	14	22												
35			4	10	20											
50					8											
63					3								(2)			
80																
100																
125																
160																
200																
225																
250									(3)							
315																
400																
500																(1)

## Current Load value tables

**Housing size in mm L(W) = 200 ; W(H) = 200 ; H(D) = 80**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	32	58														
16	12	22	36													
20	5	13	23	38												
25		6	14	23												
35			4	10	21											
50					8	17	55									
63					3	9	18					(2)				
80						4	10									
100							4									
125																
160																
200																
225																
250								(3)								
315																
400																
500																(1)

**Housing size in mm L(W) = 200 ; W(H) = 200 ; H(D) = 120**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	39	71														
16	15	26	44													
20	6	16	28	47												
25		8	17	28												
35			5	13	25											
50				2	10	21	68									
63					3	11	23					(2)				
80						4	12									
100							5									
125																
160																
200																
225																
250								(3)								
315																
400																
500																(1)

**Housing size in mm L(W) = 300 ; W(H) = 150 ; H(D) = 80**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	30	55														
16	11	20	34													
20	5	12	21	36												
25		6	13	22												
35			4	10	19											
50					8	16	53									
63					2	9	17					(2)				
80						3	9									
100							4									
125																
160																
200																
225																
250								(3)								
315																
400																
500																(1)

## Current Load value tables

Housing size in mm L(W) = 300 ; W(H) = 200 ; H(D) = 120

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	42	76														
16	16	28	47													
20	6	17	30	50												
25		8	18	30												
35			5	14	27											
50				2	11	22	73									
63					4	12	24						(2)			
80						5	13	22								
100							6	12	22							
125								5	11							
160									4							
200																
225																
250								(3)								
315																
400																
500																(1)

Housing size in mm L(W) = 300 ; W(H) = 300 ; H(D) = 120

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	48	87														
16	18	33	54													
20	7	20	34	58												
25		10	21	35												
35			6	16	31											
50				2	13	26	83									
63					4	14	28						(2)			
80						6	15	25								
100							7	14	25							
125								6	13							
160									5							
200																
225																
250								(3)								
315																
400																
500																(1)

Housing size in mm L(W) = 300 ; W(H) = 300 ; H(D) = 160

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	55	100														
16	21	38	62													
20	9	23	39	66												
25		11	24	40												
35			7	18	36											
50				2	15	30	96									
63					5	16	32						(2)			
80						6	17	29								
100							8	16	29							
125								7	15							
160									6							
200																
225																
250								(3)								
315																
400																
500																(1)

## Current Load value tables

Housing size in mm L(W) = 300 ; W(H) = 150 ; H(D) = 100

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	34	61														
16	13	23	38													
20	5	14	24	41												
25		7	15	24												
35			4	11	22											
50					9	18	59									
63					3	10	20						(2)			
80						4	10	18								
100							5	9	18							
125								4	9	17						
160									3	8						
200										3						
225																
250								(3)								
315																
400																
500																(1)

Housing size in mm L(W) = 400 ; W(H) = 150 ; H(D) = 80

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	30	55														
16	11	21	34													
20	5	13	22	37												
25		6	13	22												
35			4	10	20											
50					8	16	53									
63					2	9	18						(2)			
80						3	9									
100							4									
125																
160																
200																
225																
250								(3)								
315																
400																
500																(1)

Housing size in mm L(W) = 400 ; W(H) = 200 ; H(D) = 120

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	43	77														
16	16	29	48													
20	7	18	30	51												
25		8	19	31												
35			6	14	28											
50				2	11	23	74									
63					4	13	25							(2)		
80						5	13	23								
100							6	12	22							
125								5	12	22						
160									4	10	18					
200										4	8					
225											5					
250											3					
315								(3)								
400																
500																(1)

## Current Load value tables

Housing size in mm L(W) = 400 ; W(H) = 200 ; H(D) = 160

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	49	90														
16	19	34	56													
20	8	21	35	60												
25		10	22	36												
35			7	16	32											
50				2	13	26	86									
63					4	15	29						(2)			
80						6	15	26								
100							7	14	26							
125								6	14	25						
160									5	12	21					
200										5	10					
225										2	6					
250								(3)			3					
315																
400																
500																(1)

Housing size in mm L(W) = 400 ; W(H) = 300 ; H(D) = 160

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	58	106														
16	22	40	66													
20	9	24	42	70												
25		12	26	42												
35			8	19	38											
50				3	15	31	101									
63					5	17	34						(2)			
80						7	18	31								
100							8	17	31							
125								7	16	30						
160									6	14	25					
200										5	12					
225										2	7					
250								(3)			4					
315																
400																
500																(1)

Housing size in mm L(W) = 400 ; W(H) = 400 ; H(D) = 160

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	64	116														
16	24	44	72													
20	10	27	46	77												
25		13	28	46												
35			9	21	42											
50				3	17	34	111									
63					6	19	37						(2)			
80						8	20	34								
100							9	18	34							
125								8	18	33						
160									7	15	27					
200										6	13					
225										2	8					
250								(3)			4					
315																
400																
500																(1)

## Current Load value tables

**Housing size in mm L(W) = 500 ; W(H) = 400 ; H(D) = 160**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	68	123														
16	26	46	76													
20	11	28	48	82												
25		14	30	49												
35			9	23	44											
50				3	18	36	118									
63					6	20	40					(2)				
80						8	21	36								
100							10	19	36							
125								8	19	35						
160									7	16	29	73				
200										6	14	23	40			
225											2	8	15	24	49	
250								(3)			5	10	17	27		
315												2	6	12	21	62
400														3	8	14
500																5

**Housing size in mm L(W) = 600 ; W(H) = 400 ; H(D) = 160**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	70	127														
16	27	48	79													
20	11	29	50	84												
25		14	31	50												
35			9	23	45											
50				3	18	38	121									
63					6	21	41					(2)				
80						8	22	37								
100							10	20	37							
125								9	19	36						
160									7	17	30	75				
200										7	14	23	41			
225											2	9	16	25	50	
250								(3)			5	11	17	28		
315												2	7	12	22	64
400														3	8	15
500																5

**Housing size in mm L(W) = 200 ; W(H) = 300 ; H(D) = 155**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	48	87														
16	18	33	54													
20	7	20	34	58												
25		10	21	34												
35			6	16	31											
50				2	13	26	83									
63					4	14	28					(2)				
80						6	15	25								
100							7	14	25							
125								6	13							
160									5							
200																
225																
250								(3)								
315																
400																
500																(1)



## Current Load value tables

**Housing size in mm L(W) = 300 ; W(H) = 380 ; H(D) = 210**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	67	121														
16	26	46	75													
20	11	28	48	80												
25		14	30	48												
35			9	22	43											
50				3	18	36	116									
63					6	20	39							(2)		
80						8	21	35								
100							10	19	35							
125								8	18	34						
160									7	16						
200										6						
225										2						
250								(3)								
315																
400																
500																(1)

**Housing size in mm L(W) = 300 ; W(H) = 400 ; H(D) = 210**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	67	122														
16	26	46	76													
20	11	28	48	81												
25		14	30	49												
35			9	22	44											
50				3	18	36	117									
63					6	20	39							(2)		
80						8	21	36								
100							10	19	36							
125								8	19	34						
160									7	16	28					
200										6	14					
225										2	8					
250								(3)			4					
315																
400																
500																(1)

**Housing size in mm L(W) = 380 ; W(H) = 300 ; H(D) = 155**

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	57	103														
16	22	39	64													
20	9	24	41	69												
25		11	25	41												
35			8	19	37											
50				3	15	31	99									
63					5	17	33							(2)		
80						7	18	30								
100							8	16	30							
125								7	16	29						
160									6	14						
200										5						
225										2						
250								(3)								
315																
400																
500																(1)

## Current Load value tables

Housing size in mm L(W) = 380 ; W(H) = 380 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	71	129														
16	27	49	81													
20	11	30	51	86												
25		14	32	51												
35			10	24	46											
50				3	19	38	124									
63					6	21	42						(2)			
80						8	22	38								
100							10	20	38							
125								9	20	37						
160									8	17						
200										7						
225										2						
250								(3)								
315																
400																
500																(1)

Housing size in mm L(W) = 380 ; W(H) = 600 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	77	140														
16	29	52	87													
20	12	32	55	93												
25		16	34	56												
35			10	26	50											
50				4	20	41	134									
63					7	23	45						(2)			
80						9	24	41								
100							11	22	41							
125								10	21	40						
160									8	18	33	83				
200										7	16	26	45			
225										3	10	18	27	55		
250								(3)			5	12	19	31		
315											2	7	13	24	71	
400													3	9	16	
500															5	(1)

Housing size in mm L(W) = 400 ; W(H) = 400 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	73	132														
16	28	50	83													
20	12	31	52	88												
25		15	32	53												
35			10	24	47											
50				3	19	39	127									
63					7	22	43							(2)		
80						9	23	39								
100							11	21	39							
125								9	20	37						
160									8	17	31					
200										7	15					
225										2	9					
250								(3)			5					
315																
400																
500																(1)

## Current Load value tables

Housing size in mm L(W) = 400 ; W(H) = 600 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	79	143														
16	30	54	89													
20	13	33	56	95												
25		16	35	57												
35			11	26	51											
50				4	21	42	137									
63					7	23	46						(2)			
80						9	25	42								
100							11	23	42							
125								10	22	40						
160									8	19	33	85				
200										8	16	26	46			
225										3	10	18	28	57		
250								(3)			5	12	19	32		
315												3	7	13	25	72
400														3	10	17
500																6

Housing size in mm L(W) = 600 ; W(H) = 600 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	91	165														
16	35	62	103													
20	15	38	65	110												
25		19	40	66												
35			12	30	59											
50				4	24	49	158									
63					8	27	53						(2)			
80						11	29	48								
100							13	26	48							
125								12	25	47						
160									10	22	39	98				
200										9	19	31	53			
225										3	12	21	32	37		
250								(3)			6	14	23	37		
315												3	9	16	29	84
400														4	11	19
500																6

Housing size in mm L(W) = 600 ; W(H) = 760 ; H(D) = 210

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	97	175														
16	37	66	109													
20	16	41	69	116												
25		20	43	70												
35			13	32	63											
50				5	26	52	168									
63					9	29	57							(2)		
80						12	30	51								
100							14	28	51							
125								12	27	50						
160									10	23	41	104				
200										9	20	32	57			
225										3	12	22	35	70		
250								(3)			7	15	24	39		
315												3	9	17	30	89
400														4	12	20
500															2	7

## Current Load value tables

Housing size in mm L(W) = 600 ; W(H) = 800 ; H(D) = 300

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	114	206														
16	44	78	128													
20	18	48	81	137												
25		23	51	82												
35			16	38	74											
50				6	30	61	197									
63					11	34	67						(2)			
80						14	36	60								
100							17	33	60							
125								14	32	58						
160									12	27	48	123				
200										11	23	38	67			
225										4	15	26	41	82		
250								(3)			8	18	28	46		
315												4	11	20	36	105
400														5	14	24
500															2	8

Housing size in mm L(W) = 800 ; W(H) = 800 ; H(D) = 300

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	125	227														
16	48	85	141													
20	20	53	89	151												
25		26	56	90												
35			17	42	81											
50				6	33	67	217									
63					12	38	73						(2)			
80						15	39	67								
100							18	36	66							
125							2	16	35	64						
160									14	30	53	135				
200										12	26	42	73			
225										5	16	29	45	90		
250								(3)			9	20	31	50		
315												4	12	22	39	115
400														6	16	27
500															2	9

Housing size in mm L(W) = 800 ; W(H) = 1000 ; H(D) = 300

Current (A)	Cross section (mm <sup>2</sup> )															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
6																
10	132	240														
16	51	90	149													
20	21	56	95	159												
25		27	59	96												
35			18	44	86											
50				7	35	71	229									
63					12	40	77							(2)		
80						16	42	70								
100							19	38	70							
125							2	17	37	68						
160									14	32	56	143				
200										13	27	45	78			
225										5	17	30	47	95		
250								(3)			9	21	33	53		
315												5	13	23	42	122
400														6	16	28
500															2	10

## Current Load value tables

Housing size in mm L(W) = 1000 ; W(H) = 1200 ; H(D) = 400

Current (A)	Cross section (mm <sup>2</sup> )																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	168	305															
16	65	115	190														
20	27	71	120	203													
25		35	75	122													
35			23	57	110												
50				9	45	91	292										
63					16	51	99						(2)				
80						21	53	90									
100							25	49	89								
125							2	22	47	87							
160									18	41	72	182					
200										17	35	57	99				
225										6	22	39	60	121			
250								(3)			12	27	42	68			
315											6	16	29	53	155		
400													8	21	36		(1)
500														3	12		

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