BARTEC

ESP junction and terminal boxes current load value tables

Ex e GRPl enclosure for Zone 1/2/21/22

ESP junction and terminal boxes current load value tables

Ex e GRP enclosure for Zone 1/2/21/22

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/mm²	Current/A	Number	Workload
2,5	16	10 (of 30)	33 %
16	50	12 (of 48)	25 %
25	63	36 (of 90)	40 %
		Total	98 % < 100%

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

BARTEC F.N.
Via Mario Pagano, 3
IT-20090 Trezzano Sul Naviglio
Milano, Italy

Current Load value tables

Housing size in mm L(W) = 80 ; W(H) = 75 ; H(D) = 55

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	26																
16	9	17	69														
20	3	10	20														
25		4	11														
35																	
50																	
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 80 ; W(H) = 75 ; H(D) = 75

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	32																
16	11	21	83														
20	4	12	24														
25		6	13														
35			4														
50																	
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 110 ; W(H) = 75 ; H(D) = 55

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	27																
16	9	18	72														
20	4	10	20														
25		5	11	22													
35			3	8													
50																	
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 110 ; W(H) = 75 ; H(D) = 75

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	33																
16	11	22	86														
20	4	13	25														
25		6	14	27													
35			4	10													
50																	
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 160 ; W(H) = 75 ; H(D) = 55

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	28																
16	9	18	73														
20	4	11	21														
25		5	12	23													
35			3	9	22												
50					7	18											
63					2	8	30						(2)				
80						3	9										
100							4										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 160 ; W(H) = 75 ; H(D) = 75

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	33																
16	11	22	87														
20	4	13	25														
25		6	14	27													
35			4	10	26												
50					8	22											
63					3	10	36						(2)				
80						4	11										
100							4										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 190 ; W(H) = 75 ; H(D) = 55

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	28																
16	9	18	73														
20	4	11	21														
25		5	12	23													
35			3	9	22												
50					7	18											
63					2	8	30						(2)				
80						3	9										
100							4										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 190 ; W(H) = 75 ; H(D) = 75

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	33																
16	11	22	87														
20	4	13	25														
25		6	14	27													
35			4	10	26												
50					8	22											
63					3	10	36						(2)				
80						4	11										
100							4										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 230 ; W(H) = 75 ; H(D) = 55

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	28																
16	9	18	73														
20	4	11	21														
25		5	12	23													
35			3	9	22												
50					7	18											
63					2	8	30						(2)				
80						3	9	34									
100							4	9									
125								3									
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 230 ; W(H) = 75 ; H(D) = 75

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	33																
16	11	22	86														
20	4	13	25														
25		6	14	27													
35			4	10	26												
50					8	22											
63					2	10	36						(2)				
80						3	11	40									
100							4	10									
125								4									
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 122 ; W(H) = 120 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	43																
16	14	28	110														
20	6	16	32														
25		7	18	35													
35			5	13													
50				2													
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 122 ; W(H) = 120 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	51																
16	17	34	132														
20	7	20	38														
25		9	21	42													
35			5	16													
50				2													
63													(2)				
80																	
100																	
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 220 ; W(H) = 120 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	45																
16	15	30	118														
20	6	17	34														
25		8	19	37													
35			5	14	36												
50				2	11	30											
63					4	14	49						(2)				
80						5	15										
100							6										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 160 ; W(H) = 160 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	48																
16	16	32	125														
20	6	18	36														
25		9	20	39													
35			5	15	38												
50				2	12	31											
63					4	14	52						(2)				
80						5	16										
100							7										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 160 ; W(H) = 160 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	57																
16	19	38	147														
20	8	22	42														
25		10	24	46													
35			7	18	45												
50				2	14	37											
63					5	17	61						(2)				
80						6	19										
100							8										
125																	
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 260 ; W(H) = 160 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	52																
16	18	34	135														
20	7	20	39														
25		9	22	42													
35			6	16	41												
50				2	13	34											
63					4	16	56						(2)				
80						6	17	63									
100							7	16									
125								6	17								
160									5								
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 360 ; W(H) = 160 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	53																
16	18	35	138														
20	7	20	40														
25		9	22	43													
35			6	17	42												
50				2	13	35											
63					4	16	58						(2)				
80						6	18	64									
100							7	17									
125								6	17								
160									6	15							
200										5							
225										2							
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 560 ; W(H) = 160 ; H(D) = 90

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	53																
16	18	35	138														
20	7	20	40														
25		9	22	43													
35			6	17	42												
50				2	13	35											
63					4	16	58						(2)				
80						6	18	64									
100							7	17									
125								6	17								
160									6	15							
200										5	13	40					
225										2	7	16					
250								(3)			4	9	20				
315												2	5	12			
400														2	8	23	(1)
500																4	

Current Load value tables

Housing size in mm L(W) = 200 ; W(H) = 250 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	65																
16	22	43	169														
20	9	25	49														
25		12	27	53													
35			8	21	52												
50				3	17	43											
63					5	20	71						(2)				
80						7	22	79									
100							9	21									
125								8									
160																	
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 255 ; W(H) = 250 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	70																
16	24	46	181														
20	10	27	52														
25		13	29	57													
35			8	22	55												
50				3	18	46											
63					6	21	76						(2)				
80						8	23	85									
100							10	22									
125								9	22								
160									7								
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Housing size in mm L(W) = 255 ; W(H) = 250 ; H(D) = 160

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	81																
16	28	54	210														
20	11	31	61														
25		15	34	66													
35			10	26	65												
50				3	21	53											
63					7	25	88						(2)				
80						9	27	99									
100							12	26									
125								10	25								
160									9								
200																	
225																	
250								(3)									
315																	
400																	(1)
500																	

Current Load value tables

Housing size in mm L(W) = 400 ; W(H) = 250 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	75																
16	26	50	196														
20	10	29	57														
25		14	32	62													
35			9	24	60												
50				3	19	50											
63					6	23	82						(2)				
80						9	25	92									
100							11	24									
125								9	24								
160									8	21							
200										7	18	58					
225										3	10	22					
250								(3)			5	14	29				
315												3	8	17			
400														3	12		(1)
500																	

Housing size in mm L(W) = 400 ; W(H) = 250 ; H(D) = 160

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	87																
16	30	58	225														
20	12	34	65														
25		16	37	71													
35			11	28	69												
50				4	22	57											
63					7	26	94						(2)				
80						10	29	105									
100							12	28									
125								11	28								
160									9	25							
200										9	21	66					
225										3	12	26					
250								(3)			6	16	33				
315												3	9	19			
400														4	13		(1)
500															2		

Housing size in mm L(W) = 600 ; W(H) = 250 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	78																
16	26	52	201														
20	11	30	58														
25		14	33	64													
35			9	25	62												
50				3	20	51											
63					6	24	84						(2)				
80						9	26	95									
100							11	25									
125								10	25								
160									8	22							
200										8	19	59					
225										3	11	23					
250								(3)			6	14	29				
315												3	8	17			
400														4	12	35	(1)
500																7	

Current Load value tables

Housing size in mm L(W) = 400 ; W(H) = 405 ; H(D) = 120

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	91																
16	31	61	236														
20	13	35	68														
25		17	39	75													
35			11	29	72												
50				4	23	60											
63					8	28	99						(2)				
80						10	31	111									
100							13	29									
125								11	29								
160									10	26							
200										9	22	70					
225										3	13	27					
250								(3)			7	16	34				
315												3	10	20			
400														4	14	41	(1)
500															2	8	

Housing size in mm L(W) = 400 ; W(H) = 405 ; H(D) = 165

Current (A)	Cross section (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	
6																	
10	103																
16	32	65	266														
20	14	40	77														
25		19	43	84													
35			13	33	82												
50				4	26	67											
63					9	31	111						(2)				
80						12	35	125									
100							15	33									
125								13	33								
160									11	29							
200										10	25	78					
225										4	14	31					
250								(3)			7	18	39				
315												4	11	23			
400														5	16	46	(1)
500															2	9	

BARTEC

BARTEC F.N.
Via Mario Pagano, 3
IT-20090 Trezzano Sul Naviglio
Milano, Italy

bartec.com