

Characteristics

- Material**  
Stainless Steel 316L (EN 10088 1.4404)
- Body : 1.2 / 1.5 mm
  - Door : 1.2 / 1.5 mm
  - Plate : 2 mm
- Surface Finishing**
- Scotch-brite brushed
- IP Rating**
- IP66 (TS 3033, EN 60529)
- Others**
- Padlockable, removable, screw-type solid door
  - Foamed-in door PU sealing gasket (-40°C +100°C)
  - 180° Concealed hinge
  - Door fastening with captive screws
  - Impact strength 7 Joule
  - Ambient Temperature -40°C to +55°C for T5
  - Ambient Temperature -40°C to +40°C for T6
  - Horizontal or vertical terminal options
  - Ex e & Ex ia protection
  - Zone1 (Category 2), Zone 2 (Category 3) & Zone 21 & 22.
  - M6/M10 integral internal / external earthing stud

On Request

- Special sizes
- 0,2,3,4 gland plate options
- Special mounting plate
- Pre-galvanized steel + painted



Supply Includes

- Body
- Door
- Earth stud

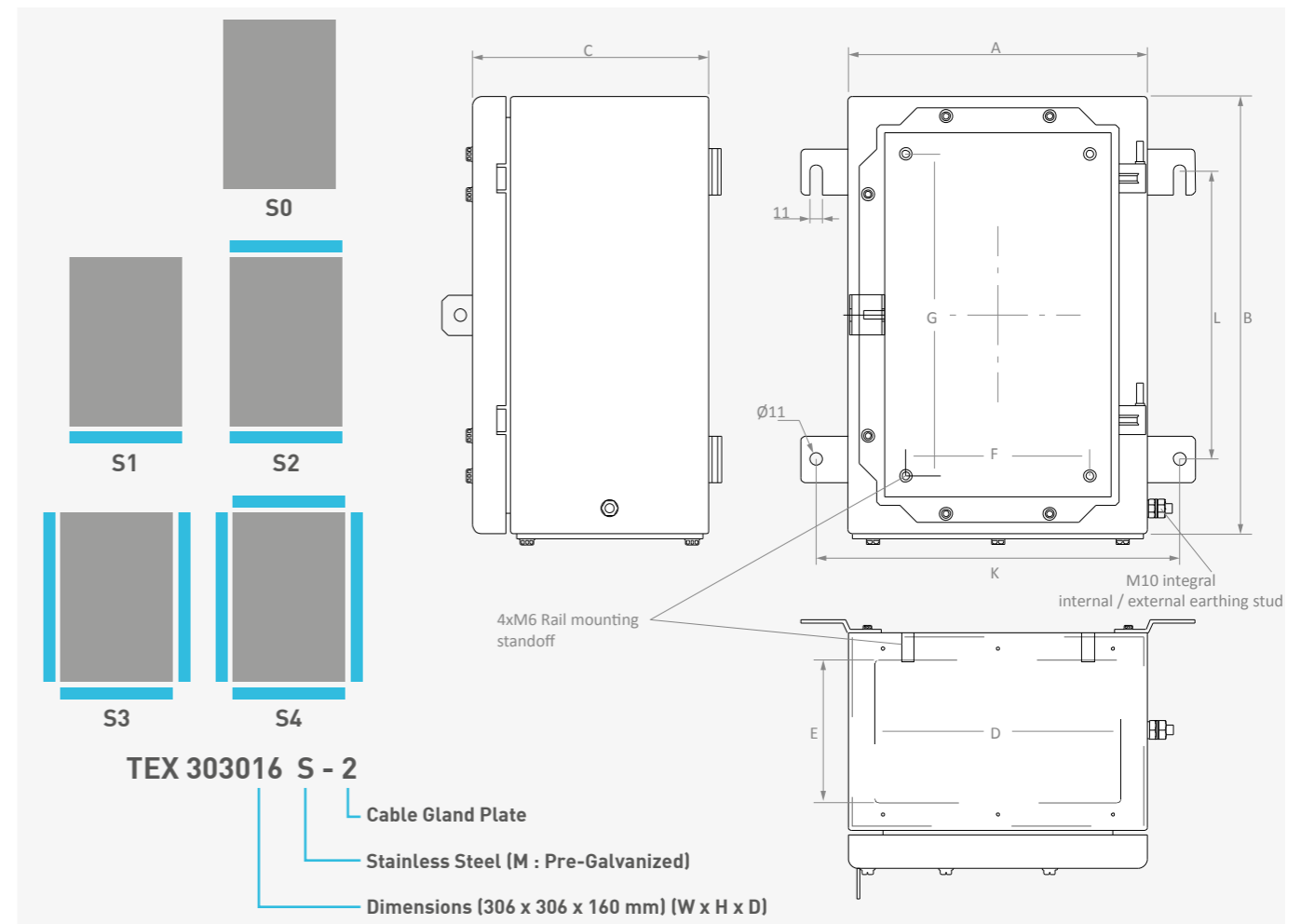
Complementary Accessories

- Mounting plate
- DIN rail
- Earthing cable
- DIN rail mounting bracket (vertical / horizontal)

Width	Height	Depth	Reference	Thickness			Hinge	Weight
				Body	Door	Plate		
A	B	C		mm	mm	mm	pcs	kg
120	120	80	TES 121208-S	1.2	1.2	---	---	1.4
150	150	90	TES 151509-S	1.2	1.2	---	---	1.9
190	190	100	TES 191910-S	1.2	1.2	---	---	3.0
152	229	135	TEX 152213-S1	1.5	1.5	2	2	3.3
260	260	160	TEX 262616-S1	1.5	1.5	2	2	5.5
260	260	205	TEX 262620-S1	1.5	1.5	2	2	5.5
260	380	160	TEX 263816-S1	1.5	1.5	2	2	7.0
260	380	205	TEX 263820-S1	1.5	1.5	2	2	7.0
306	306	160	TEX 303016-S1	1.5	1.5	2	2	7.0
306	306	205	TEX 303020-S1	1.5	1.5	2	2	7.0
350	500	160	TEX 355016-S1	1.5	1.5	2	2	10.5
350	500	205	TEX 355020-S1	1.5	1.5	2	2	10.5
382	458	160	TEX 384516-S1	1.5	1.5	2	2	9.8
382	458	205	TEX 384520-S1	1.5	1.5	2	2	9.8
450	620	160	TEX 456216-S1	1.5	1.5	2	2	17.0
450	620	205	TEX 456220-S1	1.5	1.5	2	2	17.0
480	480	160	TEX 484816-S1	1.5	1.5	2	2	10.4
480	480	205	TEX 484820-S1	1.5	1.5	2	2	10.4
508	762	205	TEX 507620-S1	1.5	1.5	2	2	23.5
550	740	205	TEX 557420-S1	1.5	1.5	2	2	23.5
610	914	205	TEX 619120-S1	1.5	1.5	2	3	31.0
640	860	205	TEX 648620-S1	1.5	1.5	2	3	29.0
740	980	205	TEX 749820-S1	1.5	1.5	2	3	38.0

Characteristics

- Global (IECEx)**
- IECEx SIR 15.0056X
- Gas&Dust**
- Ex eb IIC T6 Gb (Tamb: -40°C to +40°C)
  - Ex ia IIC T6 Ga (Tamb: +40°C to +40°C)
  - Ex tb IIIC T57°C Db, IP66, (Tamb: -40°C to +40°C)
- IECEx SIR 15.0057U (Component certificate)
- Europe (ATEX)**
- SIRA 06 ATEX 3285X
- Gas&Dust**
- II 2 G D Ex eb IIC T6 Gb (Tamb: -40°C to +40°C)
  - II 1 G Ex ia IIC T6 Ga (Tamb: -40°C to +40°C)
  - II 2 G D Ex tb IIIC T57°C Db, IP66 (Tamb: -40°C to +40°C)
- SIRA 06 ATEX 3286U (Component certificate)
- Classification areas**
- Zone 1 (Category 2), Zone 2 (Category 3) & Zones 21 & 22**
- Design standard**
- EN 50014, EN 50019, EN50020**
- IP Rating**
- IP66 (TS 3033, IEC/EN 60529)**
- Material**
- Highly corrosion resistant 1.2-1.5-2.0mm stainless steel 316L**
- Gland plates**
- 2.0mm thickness, 0,1,2,3 & 4 gland plate options**



Width A	Height B	Depth C	Reference	Cable Gland		DIN Rail Fixing		Wall Mounting	
				↔	↗	↔	↕	↔	↕
mm	mm	mm		mm	mm	mm	mm	mm	mm
120	120	80	TES 121208-S	---	---	Center	80	145	Center
150	150	90	TES 151509-S	---	---	Center	110	175	Center
190	190	100	TES 191910-S	---	---	Center	150	215	Center
152	229	135	TEX 152213-S1	108	58	Center	127	208	152
260	260	160	TEX 262616-S1	214	80	160	160	316	170
260	260	205	TEX 262620-S1	214	124	160	160	316	170
260	380	160	TEX 263816-S1	214	80	160	280	316	250
260	380	205	TEX 263820-S1	214	124	160	280	316	250
306	306	160	TEX 303016-S1	261	80	206	206	361	203
306	306	205	TEX 303020-S1	261	124	206	206	361	203
350	500	160	TEX 355016-S1	304	80	250	400	406	350
350	500	205	TEX 355020-S1	304	124	250	400	406	350
382	458	160	TEX 384516-S1	337	80	282	358	437	305
382	458	205	TEX 384520-S1	337	124	282	358	437	305
450	620	160	TEX 456216-S1	404	80	350	520	506	450
450	620	205	TEX 456220-S1	404	124	350	520	506	450
480	480	160	TEX 484816-S1	404	80	380	380	535	327
480	480	205	TEX 484820-S1	404	124	380	380	535	327
508	762	205	TEX 507620-S1	404	124	408	662	564	508
550	740	205	TEX 557420-S1	504	124	450	640	606	540
610	914	205	TEX 619120-S1	566	108	510	814	666	559
640	860	205	TEX 648620-S1	594	124	540	760	696	570
740	980	205	TEX 749820-S1	2 x 304	124	640	880	796	700

Width A	Height B	Depth C	Reference	Maximum Terminal Content (Horizontal)						
				WDU 1.5	WDU 2.5	WDU 4.0	WDU 6.0	WDU 10	SAK 2.5	SAK 4.0
mm	mm	mm		pcs	pcs	pcs	pcs	pcs	pcs	pcs
120	120	80	TES 121208-S	---	---	---	---	---	---	---
150	150	90	TES 151509-S	---	---	---	---	---	---	---
190	190	100	TES 191910-S	---	---	---	---	---	---	---
152	229	135	TEX 152213-S1	1 x 5	1 x 5	1 x 4	1 x 3	1 x 2	1 x 4	1 x 4
260	260	160	TEX 262616-S1	2 x 27	2 x 27	2 x 23	1 x 17	1 x 13	2 x 23	2 x 23
260	260	205	TEX 262620-S1	2 x 27	2 x 27	2 x 23	1 x 17	1 x 13	2 x 23	2 x 23
260	380	160	TEX 263816-S1	3 x 27	3 x 27	3 x 23	3 x 17	3 x 13	3 x 23	3 x 23
260	380	205	TEX 263820-S1	3 x 27	3 x 27	3 x 23	3 x 17	3 x 13	3 x 23	3 x 23
306	306	160	TEX 303016-S1	2 x 36	2 x 36	2 x 30	2 x 23	2 x 18	2 x 30	2 x 30
306	306	205	TEX 303020-S1	2 x 36	2 x 36	2 x 30	2 x 23	2 x 18	2 x 30	2 x 30
350	500	160	TEX 355016-S1	4 x 42	4 x 42	4 x 35	4 x 26	4 x 21	4 x 35	4 x 35
350	500	205	TEX 355020-S1	4 x 42	4 x 42	4 x 35	4 x 26	4 x 21	4 x 35	4 x 35
382	458	160	TEX 384516-S1	4 x 51	3 x 51	3 x 42	3 x 32	3 x 25	4 x 42	4 x 42
382	458	205	TEX 384520-S1	4 x 51	3 x 51	3 x 42	3 x 32	3 x 25	4 x 42	4 x 42
450	620	160	TEX 456216-S1	5 x 62	5 x 62	5 x 52	4 x 39	4 x 31	5 x 52	5 x 52
450	620	205	TEX 456220-S1	5 x 62	5 x 62	5 x 52	4 x 39	4 x 31	5 x 52	5 x 52
480	480	160	TEX 484816-S1	4 x 71	3 x 71	3 x 59	3 x 44	3 x 35	4 x 59	4 x 59
480	480	205	TEX 484820-S1	4 x 71	3 x 71	3 x 59	3 x 44	3 x 35	4 x 59	4 x 59
508	762	205	TEX 507620-S1	6 x 76	6 x 76	6 x 63	5 x 47	5 x 38	7 x 63	7 x 63
550	740	205	TEX 557420-S1	7 x 82	7 x 82	6 x 69	5 x 51	5 x 51	7 x 69	6 x 69
610	914	205	TEX 619120-S1	8 x 96	8 x 96	7 x 80	7 x 60	6 x 48	8 x 80	8 x 80
640	860	205	TEX 648620-S1	8 x 100	8 x 100	7 x 90	7 x 75	6 x 52	8 x 90	8 x 90
740	980	205	TEX 749820-S1	8 x 120	8 x 120	7 x 100	7 x 77	6 x 61	8 x 100	8 x 100

Width A	Height B	Depth C	Reference	Maximum No of Cable Glands Per Bottom & Top							
				M16	M20	M25	M32	M40	M50	M63	M75
mm	mm	mm		pcs	pcs	pcs	pcs	pcs	pcs	pcs	pcs
120	120	80	TES 121208-S	8	3	2	2	0	0	0	0
150	150	90	TES 151509-S	9	6	3	2	2	0	0	0
190	190	100	TES 191910-S	15	8	6	3	2	2	0	0
152	229	135	TEX 152213-S1	6	3	2	1	1	1	0	0
260	260	160	TEX 262616-S1	20	10	10	4	3	2	0	0
260	260	205	TEX 262620-S1	28	21	15	8	6	3	0	0
260	380	160	TEX 263816-S1	21	14	10	4	3	3	0	0
260	380	205	TEX 263820-S1	32	18	15	8	5	3	0	0
306	306	160	TEX 303016-S1	24	16	12	5	4	3	0	0
306	306	205	TEX 303020-S1	32	24	12	10	4	3	0	0
350	500	160	TEX 355016-S1	20	16	12	5	4	4	3	0
350	500	205	TEX 355020-S1	40	24	18	10	8	4	3	2
382	458	160	TEX 384516-S1	22	18	14	6	5	4	3	0
382	458	205	TEX 384520-S1	44	27	21	12	8	4	3	0
450	620	160	TEX 456216-S1	26	22	16	7	6	5	4	0
450	620	205	TEX 456220-S1	52	33	24	14	12	5	4	3
480	480	160	TEX 484816-S1	26	22	18	7	5	5	4	0
480	480	205	TEX 484820-S1	52	33	24	14	12	5	4	0
508	762	205	TEX 507620-S1	52	33	24	14	12	5	4	3
550	740	205	TEX 557420-S1	64	42	30	18	14	7	5	4
610	914	205	TEX 619120-S1	57	48	22	22	8	8	5	5
640	860	205	TEX 648620-S1	76	48	36	22	16	8	6	5
740	980	205	TEX 749820-S1	80	48	36	20	16	8	6	4

Width A	Height B	Depth C	Reference	Maximum Terminal Content (Vertical)						
				WDU 1.5	WDU 2.5	WDU 4.0	WDU 6.0	WDU 10	SAK 2.5	SAK 4.0
mm	mm	mm		pcs	pcs	pcs	pcs	pcs	pcs	pcs
120	120	80	TES 121208-S	1 x 8	1 x 8	0	0	0	1 x 6	1 x 6
150	150	90	TES 151509-S	1 x 13	1 x 13	1 x 11	1 x 8	1 x 7	1 x 11	1 x 10
190	190	100	TES 191910-S	1 x 21	1 x 21	1 x 18	1 x 13	1 x 10	1 x 18	1 x 16
152	229	135	TEX 152213-S1	1 x 21	1 x 21	1 x 17	1 x 13	1 x 10	1 x 17	1 x 17
260	260	160	TEX 262616-S1	2 x 27	2 x 27	2 x 23	1 x 17	1 x 13	2 x 23	2 x 23
260	260	205	TEX 262620-S1	2 x 27	2 x 27	2 x 23	1 x 17	1 x 13	2 x 23	2 x 23
260	380	160	TEX 263816-S1	2 x 51	2 x 51	2 x 43	1 x 32	1 x 25	2 x 43	2 x 43
260	380	205	TEX 263820-S1	2 x 51	2 x 51	2 x 43	1 x 32	1 x 25	2 x 43	2 x 43
306	306	160	TEX 303016-S1	2 x 36	2 x 36	2 x 30	2 x 23	2 x 18	2 x 30	2 x 30
306	306	205	TEX 303020-S1	2 x 36	2 x 36	2 x 30	2 x 23	2 x 18	2 x 30	2 x 30
350	500	160	TEX 355016-S1	3 x 75	3 x 75	2 x 63	2 x 47	2 x 37	3 x 63	3 x 63
350	500	205	TEX 355020-S1	3 x 75	3 x 75	2 x 63	2 x 47	2 x 37	3 x 63	3 x 63
382	458	160	TEX 384516-S1	3 x 67	3 x 67	2 x 56	2 x 42	2 x 33	3 x 56	3 x 56
382	458	205	TEX 384520-S1	3 x 67	3 x 67	2 x 56	2 x 42	2 x 33	3 x 56	3 x 56
450	620	160	TEX 456216-S1	4 x 99	4 x 99	3 x 83	3 x 62	3 x 49	4 x 83	3 x 83
450	620	205	TEX 456220-S1	4 x 99	4 x 99	3 x 83	3 x 62	3 x 49	4 x 83	3 x 83
480	480	160	TEX 484816-S1	4 x 71	3 x 71	3 x 59	3 x 44	3 x 35	4 x 59	4 x 59
480	480	205	TEX 484820-S1	4 x 71	3 x 71	3 x 59	3 x 44	3 x 35	4 x 59	4 x 59
508	762	205	TEX 507620-S1	4 x 128	3 x 128	3 x 106	3 x 80	3 x 64	4 x 106	4 x 106
550	740	205	TEX 557420-S1	5 x 124	5 x 124	4 x 103	4 x 77	4 x 61	5 x 103	4 x 103
610	914	205	TEX 619120-S1	6 x 158	5 x 158	5 x 132	4 x 99	4 x 79	5 x 132	5 x 132
640	860	205	TEX 648620-S1	6 x 147	6 x 147	5 x 123	5 x 92	4 x 73	6 x 123	5 x 123
740	980	205	TEX 749820-S1	7 x 171	6 x 171	6 x 143	5 x 107	5 x 85	8 x 143	7 x 143

EX-PROOF ENCLOSURES

EX-PROOF ENCLOSURES

TERMINAL BOX MAXIMUM HEAT DISSIPATION

An ignition temperature is the temperature at which a hot surface will cause an ignition to occur in a given atmosphere. Dependent on the type of gas or dust, the maximum temperature that surface of the terminal box can reach without a spontaneous ignition is known as the "T Class". The maximum surface temperature must always be lower than the ignition temperature of the atmosphere in which it is used.

Each terminal box within the TES / TEX Series has been assigned a maximum heat dissipation relating to the ambient and T Class.

The TES / TEX Series offer T6 and T5 protection:

T6= Maximum 85°C

T5= Maximum 100°C

Resistance and temperature rise must be calculated as follows:

$P = I^2 \times (Rt + Rc)$

P : (W) ; total heat dissipation

I : (A) ; maximum current at cables and terminals

Rt : (W) ; total resistance of terminals

Rc : (W) ; total resistance of cable(s)\*

\*Each cable is internal maximum length measured diagonally across the terminal box.

P ≤ Pmax condition must always be obtained.

Width A mm	Height B mm	Depth C mm	Reference	Maximum Heat Dissipation P <sub>max</sub> (W)		
				Ta = 40 °C T6 W	Ta = 55 °C T6 W	Ta = 55 °C T5 W
120	120	80	TES 121208-S	5	2.4	5
150	150	90	TES 151509-S	6	2.9	6
190	190	100	TES 191910-S	7	3.4	7
152	229	135	TEX 152213-S1	8	3.9	8
260	260	160	TEX 262616-S1	12	5.9	12
260	260	205	TEX 262620-S1	13	6.4	13
260	380	160	TEX 263816-S1	16	7.9	16
260	380	205	TEX 263820-S1	18	8.9	18
306	306	160	TEX 303016-S1	15	7.4	15
306	306	205	TEX 303020-S1	16	7.9	16
350	500	160	TEX 355016-S1	33	16.3	33
350	500	205	TEX 355020-S1	34	16.8	34
382	458	160	TEX 384516-S1	31	15.3	31
382	458	205	TEX 384520-S1	32	15.8	32
450	620	160	TEX 456216-S1	53	26	53
450	620	205	TEX 456220-S1	54	26.7	54
480	480	160	TEX 484816-S1	40	19.7	40
480	480	205	TEX 484820-S1	42	20.7	42
508	762	205	TEX 507620-S1	75	37	75
550	740	205	TEX 557420-S1	74	36.6	74
610	914	205	TEX 619120-S1	100	49.4	100
640	860	205	TEX 648620-S1	99	49	99
740	980	205	TEX 749820-S1	124	61.3	124

Ta : Ambient Temperature

MAXIMUM TERMINAL LOAD CONFIGURATION

For some applications it may be necessary to have variety of terminal sizes. The following tables and examples demonstrate how it is achieved. The power heat dissipation determines the maximum number of terminals permissible for any size of terminal box, based on 100% load.

**Example 1: TES 262616-S1**

Conductor size (mm <sup>2</sup> )	Current (A)	Number of Terminals	Load : 100% (Maximum)
1.5	10	18 (maks: 41)	43.90 %
2.5	16	10 (maks: 27)	37.04 %
4.0	20	5 (maks: 31)	16.13 %

Total: 97.07 %

**Example 2: TES 262620-S1**

Conductor size (mm <sup>2</sup> )	Current (A)	Number of Terminals	Load : 100% (Maximum)
1.5	8	22 (maks: 97)	22.68 %
2.5	16	15 (maks: 31)	48.39 %
4.0	20	10 (maks: 35)	28.57 %
10.0	32	4 (maks: 66)	6.06 %

Total: 105.70 %

In example 2, the required size and number of terminals cannot be fitted into this terminal box because the total load has exceeded the maximum value of 100%. In this case, larger size terminal box must be chosen and the same steps should be repeated in order to keep the total load within 100% value.

TYPICAL TERMINAL LOAD CONFIGURATION

The below given theoretical values are calculated depending on typical configurations. In any terminal box, the maximum heat dissipation power must not be exceeded.

Maximum current value for terminals must be calculated with choosing the right T Class and Maximum Ambient Temperature from page 6

**TES 121208-S**

		Conductor size (mm <sup>2</sup> )						
		0	1.5	2.5	4	6	10	16
Current (A)	0							
	8	41						
	10	20						
	12		30					
	14		18					
	16		13	51				
	18			20				
	20			14				
	23					22		
	25					16		
	32						27	
	35						15	
	45							27
	50							13

**TES 151509-S**

		Conductor size (mm <sup>2</sup> )						
		0	1.5	2.5	4	6	10	16
Current (A)	0							
	8	48						
	10	23						
	12		35					
	14		21					
	16		15	60				
	18			24				
	20			17				
	23					26		
	25					19		
	32						32	
	35						18	
	45							32
	50							15

**TES 151509-S**

		Conductor size (mm <sup>2</sup> )						
		0	1.5	2.5	4	6	10	16
Current (A)	0							
	8	57						
	10	27						
	12		41					
	14		25					
	16		18	71				
	18			28				
	20			20				
	23					31		
	25					22		
	32						38	
	35						22	
	45							38
	50							18

**TES 152213-S1**

		Conductor size (mm <sup>2</sup> )								
		0	1.5	2.5	4	6	10	16	25	35
Current (A)	0									
	8	63								
	10	31								
	12		46							
	14		28							
	16		20	79						
	18			31						
	20			23						
	23				35					
	25				25					
	32					43				
	35					24				
	45						42			
	50						20			
	58									
	63								33	
80									37	

**TES 262616-S1**

		Conductor size (mm <sup>2</sup> )								
		0	1.5	2.5	4	6	10	16	25	35
Current (A)	0									
	8	85								
	10	41								
	12		63							
	14		37							
	16		27	106						
	18			42						
	20			31						
	23				46					
	25				33					
	32					57				
	35					32				
	45						56			
	50						27			
	58									
	63							44		
80									50	

**TES 262616-S1**

		Conductor size (mm <sup>2</sup> )								
		0	1.5	2.5	4	6	10	16	25	35
Current (A)	0									
	8	97								
	10	47								
	12		72							
	14		43							
	16		31	123						
	18			49						
	20			35						
	23				54					
	25				39					
	32					66				
	35					38				
	45						65			
	50						31			
	58									
	63							51		
80									58	

