

Translation

EU-Type Examination Certificate

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 16 ATEX E 096 X**

Product: **Terminal box type S-TB-T * * * * * ***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 16.2154 EU.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013	General requirements
EN 60079-7:2007	Increased Safety "e"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 II 2G Ex e IIC T* Gb	or	 II 2G Ex eb IIC T*
II 2D Ex tb IIIC T*°C Db		II 2D Ex tb IIIC T*°C

* The values of the temperature class and the surface temperature depending on the defined ambient temperature range and the specific power dissipation of each terminal box variant. See clause "Parameters" for details.

DEKRA EXAM GmbH
Bochum, 2016-09-13

Signed: Jörg Koch

Certifier

Signed: Dr. Michael Wittler

Approver

13 **Appendix**

14 **EU-Type Examination Certificate**
BVS 16 ATEX E 096 X

15 **Product description**

15.1 **Subject and type**

Terminal box type S-TB-T ^{aa bb cc dd e f}

- aa Enclosure material
S1 316L stainless steel - polished
S2 304 stainless steel - polished
S3 316L stainless steel - natural
S5 304 stainless steel - natural
P1 316L painted variant 1
P2 304 painted variant 1
P4 316L painted variant 2
P5 304 painted variant 2
- bb Height of the enclosure noted in cm ¹
Range: 12 up to 60
- cc Width of the enclosure noted in cm ¹
Range: 12 up to 75
- dd Depth of the enclosure noted in cm ¹
Range: 7 up to 22
- e Gland plate
0 without
1 one side
2 two sides
3 three sides
4 all sides
- f Type of gasket ¹
1 Standard
2 Flat gasket 1
4 combination of Standard and Flat gasket 1

¹ Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.

15.2 **Description**

The terminal box type S-TB-T * * * * * is designed in type of protection Increased Safety "e" for use in areas with potentially explosive gas atmosphere and in type of protection Protection by Enclosure "t" for areas with potentially explosive dust atmospheres.

The used empty enclosure type S-TB * * * * * SL * * * * is separately tested and certified with IECEx CoC IECEx BVS 13.0025U and with ATEX certificate BVS 13 ATEX E 015 U.

Inside the enclosure several different terminal blocks can be installed according to the documentation of the manufacturer.

In case of intrinsic safe circuits inside the terminal box it is a simple apparatus according to standard EN 60079-11 and a marking must be added to the enclosure. The creepage and clearance distances between intrinsic safe circuits to ground, between two different intrinsic safe circuits and between intrinsic and non-intrinsic safe circuits are taken into account during the installation of the terminals.

Listing of all components used referring to older standards

Subject and type	Certificate	Standards
Terminal type MSLKG 5	KEMA 00 ATEX 2100 U ¹	EN 60079-0:2006 EN 60079-7:2007
Terminal type SAK *	KEMA 97 ATEX 1798 U ¹	EN 60079-0:2006 EN 60079-7:2003
Terminal ZDU *	KEMA 97 ATEX 2521 U ¹	EN 60079-0:2006 EN 60079-7:2003

¹ No applicable technical differences

² Technical differences evaluated and found satisfactory

15.3 Parameters

Electrical parameters

Rated voltage ¹	AC / DC	690 V
Rated current ²	up to	400 A
Cross section ³	up to	240 mm ²

¹ The rated voltage depends on the used type of terminal and the creepage and clearance distances.

² The rated current depends on the used type of terminal, the cross section and the number of conductors.

³ According to the cross section / current table for each size of enclosure.

Thermal parameters (general)

Terminal box size	T _{amb,max}	Maximum permitted dissipation power for	
		T6	T5
12-12-07	40 °C	12.5	17.2
	55 °C	7.8	12.5
12-12-08	40 °C	13.0	17.9
	55 °C	8.1	13.0
12-12-09	40 °C	13.9	19.1
	55 °C	8.7	13.9
14-12-07	40 °C	14.0	19.3
	55 °C	8.8	14.0
15-12-08	40 °C	15.3	21.1
	55 °C	9.6	15.3
15-15-09	40 °C	19.1	26.3
	55 °C	12.0	19.1
16-38-12	40 °C	48.6	66.8
	55 °C	30.4	48.6
17-12-09	40 °C	18.0	24.7
	55 °C	11.2	18.0
18-12-07	40 °C	17.1	23.4
	55 °C	10.7	17.1
19-15-09	40 °C	22.9	31.4
	55 °C	14.3	22.9
19-19-10	40 °C	28.7	39.4
	55 °C	17.9	28.7
22-12-09	40 °C	22.0	30.3
	55 °C	13.8	22.0
25-25-12	40 °C	47.4	65.1
	55 °C	29.6	47.4
25-40-13	40 °C	71.3	98.1
	55 °C	44.6	71.3
27-12-09	40 °C	26.1	35.9
	55 °C	16.3	26.1
30-26-10	40 °C	51.6	71.0
	55 °C	32.3	51.6

30-30-20	40 °C	81.2	111.7
	55 °C	50.8	81.2
34-34-15	40 °C	84.1	115.7
	55 °C	52.6	84.1
34-55-15	40 °C	123.9	170.4
	55 °C	77.5	123.9
34-75-15	40 °C	161.8	222.5
	55 °C	101.1	161.8
37-33-10	40 °C	74.1	101.8
	55 °C	46.3	74.1
38-30-22	40 °C	101.9	140.1
	55 °C	63.7	101.9
38-38-22	40 °C	120.5	165.7
	55 °C	75.3	120.5
40-60-12	40 °C	139.2	191.4
	55 °C	87.0	139.2
48-48-20	40 °C	163.3	224.6
	55 °C	102.1	163.3
60-40-20	40 °C	177.9	244.6
	55 °C	111.2	177.9

Thermal parameters for each size of terminal box

Terminal box 12-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	38			4)											
10	13	25	99												
16	5	15	28												
20		7	16	31											
25			4	12											3)
35															
50		5)													
63															
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 12-12-08

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	40			4)											
10	13	26	103												
16	5	15	29												
20		7	17	32											
25			5	12											3)
35		5)													
50															
63															
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 12-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	42			4)											
10	14	28	110												
16	6	16	32												
20		7	18	35											
25			5	13											
35				2											3)
50															
63			5)												
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 14-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	39														
10	13	26	102		4)										
16	5	15	29												
20		7	16	32											
25			5	12	31										
35					10										
50					3										3)
63			5)												
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 15-12-08

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	41														
10	14	27	107		4)										
16	5	16	31												
20		7	17	34											
25			5	13	33										
35				2	10	27									
50					3	12									
63						4									3)
80			5)												
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 15-15-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	47														
10	16	31	121		4)										
16	6	18	35												
20		8	20	38											
25			5	15	37										
35				2	12	31									
50					4	14									
63						5									
80			5)												3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 16-38-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	61														
10	21	40	158		4)										
16	8	23	46												
20		11	26	50											
25			7	19	48										
35				2	16	40									
50					5	18	66								
63						7	20	74							
80			5)				9	19							
100								8	20						
125									6	17					
160										6	15				
200											2	8			
225												4			
250															3)
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 17-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	45														
10	15	30	116		4)										
16	6	17	33												
20		8	19	36											
25			5	14	35										
35				2	11	29									
50					4	13									
63						5									3)
80			5)												
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 18-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	41														
10	14	27	106		4)										
16	5	16	30												
20		7	17	33											
25			5	13	32										
35					10										
50					3										3)
63															
80			5)												
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 19-05-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	49														
10	16	32	127		4)										
16	7	19	36												
20		9	21	40											
25			6	15	39										
35				2	12	32									
50					4	15	53								
63						5	16								
80			5)				7								3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 19-19-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	55														
10	19	37	143		4)										
16	8	21	41												
20		10	23	45											
25			7	17	44										
35				2	14	36									
50					4	17	60								
63						6	18								
80			5)				8								3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 22-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	45														
10	15	30	118		4)										
16	6	17	34												
20		8	19	37											
25			5	14	36										
35				2	11	30									
50					4	14	49								
63						5	15	55							
80			5)				6	14							
100								5							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 25-25-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	160	185	240
3															
6	70														
10	24	46	180		4)										
16	10	27	52												
20		12	29	57											
25			8	22	55										
35				3	18	46									
50					6	21	75								
63						8	23	84							
80			5)				10	22							
100								9							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 25-40-13

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	79														
10	27	52	203		4)										
16	11	30	59												
20		14	33	64											
25			9	25	62										
35				3	20	52									
50					7	24	85								
63						9	26	95							
80			5)				11	25							
100								10	25						
125									8	22					
160										8	19				
200											3	11			
225												6			3)
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 27-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	46														
10	15	30	119		4)										
16	6	17	34												
20		8	29	37											
25			5	14	36										
35				2	12	30									
50					4	14	50								
63						5	15	55							
80			5)				6	14							
100								6							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-26-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	68														
10	23	45	175		4)										
16	9	26	51												
20		12	28	55											
25			8	21	54										
35				3	17	44									
50					6	20	73								
63						8	23	82							
80			5)				9	21							
100								8							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-30-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	66	257		4)										
16	14	38	74												
20		18	42	81											
25			12	32	79										
35				4	26	65									
50					8	30	108								
63						11	34	121							
80			5)				14	32							
100								13	32						
125									11						3)
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 34-34-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	91														
10	31	60	235		4)										
16	13	35	68												
20		16	38	74											
25			11	29	72										
35				4	23	60									
50					8	28	99								
63						10	31	110							
80			5)				13	29							
100								11	29						
125									10	26					
160										9					
200										3					3)
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-55-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	66	258		4)										
16	14	39	75												
20		18	42	81											
25			12	32	79										
35				4	26	65									
50					8	30	108								
63						11	34	121							
80			5)				14	32							
100								13	32						
125									11	28					
160										10	24	76			
200											3	14	30		
225												7	18	38	
250													3	11	22
315														5	15
400															2
3)															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-75-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	102														
10	35	68	264		4)										
16	14	40	76												
20		19	43	83											
25			12	33	81										
35				4	26	67									3)
50					9	31	111								
63						12	34	124							
80			5)				15	33							
100								13	33						
125									11	29					
160										10	25	78			
200										4	14	30			
225											7	18	36		
250												4	11	23	
315														5	16
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 37-33-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	78														
10	26	52	201		4)										
16	11	30	58												
20		14	33	63											
25			9	25	62										
35				3	20	51									
50					6	23	84								
63						9	26	94							
80			5)				11	25							
100								10							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 38-30-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	110														
10	37	73	283		4)										
16	15	42	82												
20		20	46	89											
25			13	35	87										
35				5	28	72									
50					9	33	119								
63						13	37	133							
80			5)				16	35							
100								14	35						
125									12	31					
160										11	27				
200										4	15				
225											8				3)
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 38-38-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	117														
10	40	77	302		4)										
16	16	45	87												
20		212	49	95											
25			14	37	93										
35				5	30	77									
50					10	35	126								
63						13	39	142							
80			5)				17	37							
100								15	38						
125									13	33					
160										12	29				
200										4	16				
225											8				3)
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 40-60-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	67	260		4)										
16	14	39	75												
20		18	42	82											
25			12	32	80										
35				4	26	66									
50					8	30	109								
63						11	34	122							
80			5)				14	32							
100								13	32						
125									11	28					
160										10	24				
200										4	14				
225											7				3)
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 48-48-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	125														
10	43	83	324		4)										
16	18	48	94												
20		23	53	102											
25			15	40	99										
35				6	32	82									
50					11	38	136								
63						14	42	152							
80			5)				18	40							
100							2	16	40						
125									14	36					
160										13	31	95			
200										4	18	37			
225											9	23	47		
250												4	13	28	
315														6	19
400															2
3)															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 60-40-22

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	128															
10	44	85	332		4)											
16	18	50	96													
20		23	54	105												
25			16	41	102											
35				6	33	84										
50					11	39	139									
63						15	43	156								
80			5)				18	41								
100							2	16	41							
125									14	36						
160										13	32	98				
200										5	18	38				
225											9	23	49			
250												5	14	29		
315													6	20		
400														2	3)	
1)	See explanation below the tables															
2)	See explanation below the tables															

- 1) Maximum number of terminals depending on the above mentioned apparatus type and the built-in 2 wire terminals.
- 2) Maximum number of terminals depending on the above mentioned apparatus type and the max. number of conductors.
- 3) Maximum number of conductors depending on the cross-section and allowed continuous current for the mentioned apparatus type. The number of conductors is the sum of all incoming conductors and internal wire connections. Bridge links and earth conductors do not count.
- 4) This area can be used for the installation of further terminals taking into account the definition of the clearance parameters.
- 5) Terminal installation in this area requires separate temperature rise tests for each different variant of installation.

16

Report Number

BVS PP 16.2154 EU, as of 2016-09-13

17 **Special Conditions for Use**

The schedules of limitation of the used terminals must be handed out by passing the complete and relevant documentation of the terminal to the operator by the manufacturer.

18 **Essential Health and Safety Requirements**


The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**


Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2016-09-13
BVS-Kir/Nu A 20111028



Certifier



Approver

Translation

EU-Type Examination Certificate Supplement 1

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 16 ATEX E 096 X**

Product: **Terminal box type S-TB-T ** * * * * ***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 16 ATEX E 096 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 16.2154 EU.


Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


EN 60079-0:2012 + A11:2013	General requirements
EN 60079-7:2007	Increased Safety "e"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex e IIC T* Gb** or **II 2D Ex tb IIIC T*°C Db**

 **II 2G Ex eb IIC T***
II 2D Ex tb IIIC T*°C

* The values of the temperature class and the surface temperature depending on the defined ambient temperature range and the specific power dissipation of each terminal box variant. See clause "Parameters" for details.

DEKRA EXAM GmbH
Bochum, 2017-05-05

Signed: Jörg Koch

Certifier

Signed: Dr Michael Wittler

Approver

13 Appendix

14 EU-Type Examination Certificate

BVS 16 ATEX E 096 X
Supplement 1

15 Product description

15.1 Subject and type

Terminal box type S-TB-T ^{aa bb cc dd e f}

- aa Enclosure material
- S1 316L stainless steel - polished
 - S2 304 stainless steel - polished
 - S3 316L stainless steel - natural
 - S5 304 stainless steel - natural
 - P1 316L painted variant 1
 - P2 304 painted variant 1
 - P4 316L painted variant 2
 - P5 304 painted variant 2
- bb Height of the enclosure noted in cm ¹
Range: 12 up to 60
- cc Width of the enclosure noted in cm ¹
Range: 12 up to 75
- dd Depth of the enclosure noted in cm ¹
Range: 7 up to 22
- e Gland plate
- 0 without
 - 1 one side
 - 2 two sides
 - 3 three sides
 - 4 all sides
- f Type of gasket ¹
- 1 Standard
 - 2 Flat gasket 1
 - 4 combination of Standard and Flat gasket 1

¹ Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.

15.2 Description

The terminal box type S-TB-T * * * * * is designed in type of protection Increased Safety "e" for use in areas with potentially explosive gas atmosphere and in type of protection Protection by Enclosure "t" for areas with potentially explosive dust atmospheres.

The used empty enclosure type S-TB * * * * * SL * * * * is separately tested and certified with IECEx CoC IECEx BVS 13.0025U and with ATEX certificate BVS 13 ATEX E 015 U.

Inside the enclosure several different terminal blocks can be installed according to the documentation of the manufacturer.



In case of intrinsic safe circuits inside the terminal box it is a simple apparatus according to standard EN 60079-11 and a marking must be added to the enclosure. The creepage and clearance distances between intrinsic safe circuits to ground, between two different intrinsic safe circuits and between intrinsic and non-intrinsic safe circuits are taken into account during the installation of the terminals.

Listing of all components used referring to older standards

Subject and type	Certificate	Standards
Terminal type MSLKG 5	KEMA 00 ATEX 2100 U ¹	EN 60079-0:2006 EN 60079-7:2007
Terminal type SAK *	KEMA 97 ATEX 1798 U ¹	EN 60079-0:2006 EN 60079-7:2003
Terminal ZDU *	KEMA 97 ATEX 2521 U ¹	EN 60079-0:2006 EN 60079-7:2003

¹ No applicable technical differences

² Technical differences evaluated and found satisfactory

Reasons for this supplement

- Increased upper ambient temperature range from 55 °C to 80 °C
- Temperature class T4 added

15.3

Parameters

Electrical parameters

Rated voltage ¹	AC / DC	690 V
Rated current ²	up to	400 A
Cross section ³	up to	240 mm ²

¹ The rated voltage depends on the used type of terminal and the creepage and clearance distances.

² The rated current depends on the used type of terminal, the cross section and the number of conductors.

³ According to the cross section / current table for each size of enclosure.

Thermal parameters (general)

Terminal box size	T _{amb,max}	Maximum permitted dissipation power for		
		T6	T5	T4
12-12-07	40 °C	12.5	17.2	---
	50 °C	---	14.1	21.9
	55 °C	7.8	12.5	---
	80 °C	---	4.7	12.5
12-12-08	40 °C	13.0	17.9	---
	50 °C	---	14.6	22.7
	55 °C	8.1	13.0	---
	80 °C	---	4.9	13.0
12-12-09	40 °C	13.9	19.1	---
	50 °C	---	15.7	24.4
	55 °C	8.7	13.9	---
	80 °C	---	5.2	13.9
14-12-07	40 °C	14.0	19.3	---
	50 °C	---	15.8	24.6
	55 °C	8.8	14.0	---
	80 °C	---	5.3	14.0
15-12-08	40 °C	15.3	21.1	---
	50 °C	---	17.2	26.8
	55 °C	9.6	15.3	---
	80 °C	---	5.7	15.3

Terminal box size	T _{amb,max}	Maximum permitted dissipation power for		
		T6	T5	T4
15-15-09	40 °C	19.1	26.3	---
	50 °C	---	21.5	33.5
	55 °C	12.0	19.1	---
	80 °C	---	7.2	19.1
16-38-12	40 °C	48.6	66.8	---
	50 °C	---	54.6	85.0
	55 °C	30.4	48.6	---
	80 °C	---	18.2	48.6
17-12-09	40 °C	18.0	24.7	---
	50 °C	---	20.2	31.5
	55 °C	11.2	18.0	---
	80 °C	---	6.7	18.0
18-12-07	40 °C	17.1	23.4	---
	50 °C	---	19.2	29.8
	55 °C	10.7	17.1	---
	80 °C	---	6.4	17.1
19-15-09	40 °C	22.9	31.4	---
	50 °C	---	25.7	40.0
	55 °C	14.3	22.9	---
	80 °C	---	8.6	22.9
19-19-10	40 °C	28.7	39.4	---
	50 °C	---	32.2	50.1
	55 °C	17.9	28.7	---
	80 °C	---	10.7	28.7
22-12-09	40 °C	22.0	30.3	---
	50 °C	---	24.8	38.6
	55 °C	13.8	22.0	---
	80 °C	---	8.3	22.0
25-25-12	40 °C	47.4	65.1	---
	50 °C	---	53.3	82.9
	55 °C	29.6	47.4	---
	80 °C	---	17.8	47.4
25-40-13	40 °C	71.3	98.1	---
	50 °C	---	80.3	124.8
	55 °C	44.6	71.3	---
	80 °C	---	26.8	71.3
27-12-09	40 °C	26.1	35.9	---
	50 °C	---	29.4	45.7
	55 °C	16.3	26.1	---
	80 °C	---	9.8	26.1
30-26-10	40 °C	51.6	71.0	---
	50 °C	---	58.1	90.3
	55 °C	32.3	51.6	---
	80 °C	---	19.4	51.6
30-30-20	40 °C	81.2	111.7	---
	50 °C	---	91.4	142.1
	55 °C	50.8	81.2	---
	80 °C	---	30.5	81.2
34-34-15	40 °C	84.1	115.7	---
	50 °C	---	94.7	147.2
	55 °C	52.6	84.1	---
	80 °C	---	31.6	84.1
34-55-15	40 °C	123.9	170.4	---
	50 °C	---	139.4	216.9
	55 °C	77.5	123.9	---
	80 °C	---	46.5	123.9

Terminal box size	T _{amb,max}	Maximum permitted dissipation power for		
		T6	T5	T4
34-75-15	40 °C	161.8	222.5	---
	50 °C	---	182.0	283.2
	55 °C	101.1	161.8	---
	80 °C	---	60.7	161.8
37-33-10	40 °C	74.1	101.8	---
	50 °C	---	83.3	129.6
	55 °C	46.3	74.1	---
	80 °C	---	27.8	74.1
38-30-22	40 °C	101.9	140.1	---
	50 °C	---	114.7	178.4
	55 °C	63.7	101.9	---
	80 °C	---	38.2	101.9
38-38-22	40 °C	120.5	165.7	---
	50 °C	---	135.5	210.8
	55 °C	75.3	120.5	---
	80 °C	---	45.2	120.5
40-60-12	40 °C	139.2	191.4	---
	50 °C	---	156.6	243.6
	55 °C	87.0	139.2	---
	80 °C	---	52.2	139.2
48-48-20	40 °C	163.3	224.6	---
	50 °C	---	183.7	285.8
	55 °C	102.1	163.3	---
	80 °C	---	61.2	163.3
60-40-20	40 °C	177.9	244.6	---
	50 °C	---	200.1	311.3
	55 °C	111.2	177.9	---
	80 °C	---	66.7	177.9

Thermal parameters for each size of terminal box

Terminal box 12-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	38			4)											
10	13	25	99												
16	5	15	28												
20		7	16	31											
25			4	12											
35															3)
50		5)													
63															
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 12-12-08

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	40			4)											
10	13	26	103												
16	5	15	29												
20		7	17	32											
25			5	12											3)
35		5)													
50															
63															
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 12-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	42			4)											
10	14	28	110												
16	6	16	32												
20		7	18	35											
25			5	13											
35				2											3)
50															
63			5)												
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 14-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	39														
10	13	26	102		4)										
16	5	15	29												
20		7	16	32											
25			5	12	31										
35					10										
50					3										3)
63			5)												
80															
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 15-12-08

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	41														
10	14	27	107		4)										
16	5	16	31												
20		7	17	34											
25			5	13	33										
35				2	10	27									
50					3	12									
63						4									
80			5)												3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 15-15-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	47														
10	16	31	121		4)										
16	6	18	35												
20		8	20	38											
25			5	15	37										
35				2	12	31									
50					4	14									
63						5									
80			5)												3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 16-38-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	61														
10	21	40	158		4)										
16	8	23	46												
20		11	26	50											
25			7	19	48										
35				2	16	40									
50					5	18	66								
63						7	20	74							
80			5)				9	19							
100								8	20						
125									6	17					
160										6	15				
200										2	8				
225											4				
250															3)
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 17-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	45														
10	15	30	116		4)										
16	6	17	33												
20		8	19	36											
25			5	14	35										
35				2	11	29									
50					4	13									
63						5									
80			5)												3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 18-12-07

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	41														
10	14	27	106		4)										
16	5	16	30												
20		7	17	33											
25			5	13	32										
35					10										
50					3										3)
63															
80			5)												
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 19-05-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	49														
10	16	32	127		4)										
16	7	19	36												
20		9	21	40											
25			6	15	39										
35				2	12	32									
50					4	15	53								
63						5	16								
80			5)				7								3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 19-19-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	55														
10	19	37	143		4)										
16	8	21	41												
20		10	23	45											
25			7	17	44										
35				2	14	36									
50					4	17	60								
63						6	18								
80			5)				8								3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 22-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	45														
10	15	30	118		4)										
16	6	17	34												
20		8	19	37											
25			5	14	36										
35				2	11	30									
50					4	14	49								
63						5	15	55							
80			5)				6	14							
100								5							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 25-25-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	70														
10	24	46	180		4)										
16	10	27	52												
20		12	29	57											
25			8	22	55										
35				3	18	46									
50					6	21	75								
63						8	23	84							
80			5)				10	22							
100								9							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 25-40-13

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	79														
10	27	52	203		4)										
16	11	30	59												
20		14	33	64											
25			9	25	62										
35				3	20	52									
50					7	24	85								
63						9	26	95							
80			5)				11	25							
100								10	25						
125									8	22					
160										8	19				
200										3	11				
225											6				3)
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 27-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	46														
10	15	30	119		4)										
16	6	17	34												
20		8	29	37											
25			5	14	36										
35				2	12	30									
50					4	14	50								
63						5	15	55							
80			5)				6	14							
100								6							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-26-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	68														
10	23	45	175		4)										
16	9	26	51												
20		12	28	55											
25			8	21	54										
35				3	17	44									
50					6	20	73								
63						8	23	82							
80			5)				9	21							
100								8							3)
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-30-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	66	257		4)										
16	14	38	74												
20		18	42	81											
25			12	32	79										
35				4	26	65									
50					8	30	108								
63						11	34	121							
80			5)				14	32							
100								13	32						
125									11						3)
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-34-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	91														
10	31	60	235		4)										
16	13	35	68												
20		16	38	74											
25			11	29	72										
35				4	23	60									
50					8	28	99								
63						10	31	110							
80			5)				13	29							
100								11	29						
125									10	26					
160										9					
200											3				3)
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-55-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	66	258		4)										
16	14	39	75												
20		18	42	81											
25			12	32	79										
35				4	26	65									
50					8	30	108								
63						11	34	121							
80			5)				14	32							
100									13	32					
125									11	28					
160										10	24	76			
200											3	14	30		
225												7	18	38	
250													3	11	22
315														5	15
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-75-15

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	102															
10	35	68	264		4)											
16	14	40	76													
20		19	43	83												
25			12	33	81											
35				4	26	67										
50					9	31	111									
63						12	34	124								
80			5)				15	33								
100								13	33							
125									11	29						
160										10	25	78				
200										4	14	30				
225											7	18	36			
250												4	11	23		
315														5	16	
400															2	3)
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 37-33-10

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	78															
10	26	52	201		4)											
16	11	30	58													
20		14	33	63												
25			9	25	62											
35				3	20	51										
50					6	23	84									
63						9	26	94								
80			5)				11	25								
100								10								3)
125																
160																
200																
225																
250																
315																
400																
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 38-30-22

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	110															
10	37	73	283		4)											
16	15	42	82													
20		20	46	89												
25			13	35	87											
35				5	28	72										
50					9	33	119									
63						13	37	133								
80			5)				16	35								
100								14	35							
125									12	31						
160										11	27					
200										4	15					
225											8					3)
250																
315																
400																
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 38-38-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	117														
10	40	77	302		4)										
16	16	45	87												
20		212	49	95											
25			14	37	93										
35				5	30	77									
50					10	35	126								
63						13	39	142							
80			5)				17	37							
100								15	38						
125									13	33					
160										12	29				
200										4	16				
225											8				
250															3)
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 40-60-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	67	260		4)										
16	14	39	75												
20		18	42	82											
25			12	32	80										
35				4	26	66									
50					8	30	109								
63						11	34	122							
80			5)				14	32							
100								13	32						
125									11	28					
160										10	24				
200										4	14				
225											7				
250															3)
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 48-48-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	125														
10	43	83	324		4)										
16	18	48	94												
20		23	53	102											
25			15	40	99										
35				6	32	82									
50					11	38	136								
63						14	42	152							
80			5)				18	40							
100							2	16	40						
125									14	36					
160										13	31	95			
200										4	18	37			
225											9	23	47		
250												4	13	28	
315														6	19
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														



Terminal box 60-40-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	128														
10	44	85	332		4)										
16	18	50	96												
20		23	54	105											
25			16	41	102										
35				6	33	84									
50					11	39	139								
63						15	43	156							
80			5)				18	41							
100							2	16	41						
125									14	36					
160										13	32	98			
200										5	18	38			
225											9	23	49		
250												5	14	29	
315														6	20
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														

- 1) Maximum number of terminals depending on the above mentioned apparatus type and the built-in 2 wire terminals.
- 2) Maximum number of terminals depending on the above mentioned apparatus type and the max. number of conductors.
- 3) Maximum number of conductors depending on the cross-section and allowed continuous current for the mentioned apparatus type. The number of conductors is the sum of all incoming conductors and internal wire connections. Bridge links and earth conductors do not count.
- 4) This area can be used for the installation of further terminals taking into account the definition of the clearance parameters.
- 5) Terminal installation in this area requires separate temperature rise tests for each different variant of installation.

16

Report Number

BVS PP 16.2154 EU, as of 2017-05-05

17 **Special Conditions for Use**

The schedules of limitation of the used terminals must be handed out by passing the complete and relevant documentation of the terminal to the operator by the manufacturer.

18 **Essential Health and Safety Requirements**

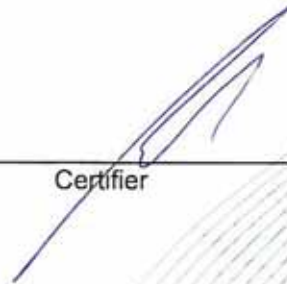
The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2017-05-05
BVS-Kir/Nu A 20170199



Certifier



Approver

Translation

EU-Type Examination Certificate Supplement 2

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 16 ATEX E 096 X**

Product: **Terminal box type S-TB-T ** * * * * ***

Manufacturer: **Cooper Crouse-Hinds GmbH**

Address: **Neuer Weg-Nord 49, 69412 Eberbach, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 16 ATEX E 096 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. PP 16.2154 EU.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013	General requirements
EN 60079-7:2007	Increased Safety "e"
EN 60079-31:2014	Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex e IIC T* Gb** or  **II 2G Ex eb IIC T***
II 2D Ex tb IIIC T*°C Db **II 2D Ex tb IIIC T*°C**

* The values of the temperature class and the surface temperature depending on the defined ambient temperature range and the specific power dissipation of each terminal box variant. See clause "Parameters" for details.

DEKRA EXAM GmbH
Bochum, 2017-07-07

Signed: Jörg Koch

Certifier

Signed: Dr Michael Wittler

Approver

13 Appendix
 14 EU-Type Examination Certificate
 BVS 16 ATEX E 096 X
 Supplement 2

15 Product description

15.1 Subject and type

Terminal box type S-TB-T^{aa bb cc dd e f}

- aa Enclosure material
 - S1 316L stainless steel - polished
 - S2 304 stainless steel - polished
 - S3 316L stainless steel - natural
 - S5 304 stainless steel - natural
 - P1 316L painted variant 1
 - P2 304 painted variant 1
 - P4 316L painted variant 2
 - P5 304 painted variant 2
- bb Height of the enclosure noted in cm¹
 Range: 12 up to 60
- cc Width of the enclosure noted in cm¹
 Range: 12 up to 75
- dd Depth of the enclosure noted in cm¹
 Range: 7 up to 22
- e Gland plate
 - 0 without
 - 1 one side
 - 2 two sides
 - 3 three sides
 - 4 all sides
- f Type of gasket¹
 - 1 Standard
 - 2 Flat gasket 1
 - 4 combination of Standard and Flat gasket 1

¹ Detailed information about the possible combinations of height, width, length and type of gasket are given in the clause parameters.

Thermal parameters (general)

Terminal box size	T _{amb,max}	Maximum permitted dissipation power [W]		
		T6	T5	T4
12-12-07	40 °C	12.5	17.2	---
	50 °C	---	14.1	21.9
	55 °C	7.8	12.5	---
	80 °C	---	4.7	12.5
	100 °C	---	---	6.3
	110 °C	---	---	3.1
12-12-08	40 °C	13.0	17.9	---
	50 °C	---	14.6	22.7
	55 °C	8.1	13.0	---
	80 °C	---	4.9	13.0
	100 °C	---	---	6.5
	110 °C	---	---	3.2
12-12-09	40 °C	13.9	19.1	---
	50 °C	---	15.7	24.4
	55 °C	8.7	13.9	---
	80 °C	---	5.2	13.9
	100 °C	---	---	7.0
	110 °C	---	---	3.5
14-12-07	40 °C	14.0	19.3	---
	50 °C	---	15.8	24.6
	55 °C	8.8	14.0	---
	80 °C	---	5.3	14.0
	100 °C	---	---	7.0
	110 °C	---	---	3.5
15-12-08	40 °C	15.3	21.1	---
	50 °C	---	17.2	26.8
	55 °C	9.6	15.3	---
	80 °C	---	5.7	15.3
	100 °C	---	---	7.7
	110 °C	---	---	3.8
15-15-09	40 °C	19.1	26.3	---
	50 °C	---	21.5	33.5
	55 °C	12.0	19.1	---
	80 °C	---	7.2	19.1
	100 °C	---	---	9.6
	110 °C	---	---	4.8
16-38-12	40 °C	48.6	66.8	---
	50 °C	---	54.6	85.0
	55 °C	30.4	48.6	---
	80 °C	---	18.2	48.6
	100 °C	---	---	24.3
	110 °C	---	---	12.1
17-12-09	40 °C	18.0	24.7	---
	50 °C	---	20.2	31.5
	55 °C	11.2	18.0	---
	80 °C	---	6.7	18.0
	100 °C	---	---	9.0
	110 °C	---	---	4.5
18-12-07	40 °C	17.1	23.4	---
	50 °C	---	19.2	29.8
	55 °C	10.7	17.1	---
	80 °C	---	6.4	17.1
	100 °C	---	---	8.5
	110 °C	---	---	4.3

Terminal box size	T _{amb,max}	Maximum permitted dissipation power [W]		
		T6	T5	T4
19-15-09	40 °C	22.9	31.4	---
	50 °C	---	25.7	40.0
	55 °C	14.3	22.9	---
	80 °C	---	8.6	22.9
	100 °C	---	---	11.4
	110 °C	---	---	5.7
19-19-10	40 °C	28.7	39.4	---
	50 °C	---	32.2	50.1
	55 °C	17.9	28.7	---
	80 °C	---	10.7	28.7
	100 °C	---	---	14.3
	110 °C	---	---	7.2
22-12-09	40 °C	22.0	30.3	---
	50 °C	---	24.8	38.6
	55 °C	13.8	22.0	---
	80 °C	---	8.3	22.0
	100 °C	---	---	11.0
	110 °C	---	---	5.5
25-25-12	40 °C	47.4	65.1	---
	50 °C	---	53.3	82.9
	55 °C	29.6	47.4	---
	80 °C	---	17.8	47.4
	100 °C	---	---	23.7
	110 °C	---	---	11.8
25-40-13	40 °C	71.3	98.1	---
	50 °C	---	80.3	124.8
	55 °C	44.6	71.3	---
	80 °C	---	26.8	71.3
	100 °C	---	---	35.7
	110 °C	---	---	17.8
27-12-09	40 °C	26.1	35.9	---
	50 °C	---	29.4	45.7
	55 °C	16.3	26.1	---
	80 °C	---	9.8	26.1
	100 °C	---	---	13.1
	110 °C	---	---	6.5
30-26-10	40 °C	51.6	71.0	---
	50 °C	---	58.1	90.3
	55 °C	32.3	51.6	---
	80 °C	---	19.4	51.6
	100 °C	---	---	25.8
	110 °C	---	---	12.9
30-30-20	40 °C	81.2	111.7	---
	50 °C	---	91.4	142.1
	55 °C	50.8	81.2	---
	80 °C	---	30.5	81.2
	100 °C	---	---	40.6
	110 °C	---	---	20.3
34-34-15	40 °C	84.1	115.7	---
	50 °C	---	94.7	147.2
	55 °C	52.6	84.1	---
	80 °C	---	31.6	84.1
	100 °C	---	---	42.1
	110 °C	---	---	21.0

Terminal box size	T _{amb,max}	Maximum permitted dissipation power [W]		
		T6	T5	T4
34-55-15	40 °C	123.9	170.4	---
	50 °C	---	139.4	216.9
	55 °C	77.5	123.9	---
	80 °C	---	46.5	123.9
	100 °C	---	---	62.0
	110 °C	---	---	31.0
34-75-15	40 °C	161.8	222.5	---
	50 °C	---	182.0	283.2
	55 °C	101.1	161.8	---
	80 °C	---	60.7	161.8
	100 °C	---	---	80.9
	110 °C	---	---	40.5
37-33-10	40 °C	74.1	101.8	---
	50 °C	---	83.3	129.6
	55 °C	46.3	74.1	---
	80 °C	---	27.8	74.1
	100 °C	---	---	37.0
	110 °C	---	---	18.5
38-30-22	40 °C	101.9	140.1	---
	50 °C	---	114.7	178.4
	55 °C	63.7	101.9	---
	80 °C	---	38.2	101.9
	100 °C	---	---	51.0
	110 °C	---	---	25.5
38-38-22	40 °C	120.5	165.7	---
	50 °C	---	135.5	210.8
	55 °C	75.3	120.5	---
	80 °C	---	45.2	120.5
	100 °C	---	---	60.2
	110 °C	---	---	30.1
40-60-12	40 °C	139.2	191.4	---
	50 °C	---	156.6	243.6
	55 °C	87.0	139.2	---
	80 °C	---	52.2	139.2
	100 °C	---	---	69.6
	110 °C	---	---	34.8
48-48-20	40 °C	163.3	224.6	---
	50 °C	---	183.7	285.8
	55 °C	102.1	163.3	---
	80 °C	---	61.2	163.3
	100 °C	---	---	81.7
	110 °C	---	---	40.8
60-40-20	40 °C	177.9	244.6	---
	50 °C	---	200.1	311.3
	55 °C	111.2	177.9	---
	80 °C	---	66.7	177.9
	100 °C	---	---	88.9
	110 °C	---	---	44.5

The lower ambient temperature range depends on the used sealing material

T_{amb,min} = -40 °C (Flat gasket 1)

T_{amb,min} = -55 °C (standard)

Terminal box 15-12-08

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	41														
10	14	27	107		4)										
16	5	16	31												
20		7	17	34											
25			5	13	33										
35				2	10	27									
50					3	12									
63						4									
80			5)												3)
100															
125															
160															
200															
225															
250															
315															
400															
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 15-15-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	47														
10	16	31	121		4)										
16	6	18	35												
20		8	20	38											
25			5	15	37										
35				2	12	31									
50					4	14									
63						5									
80			5)												3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 16-38-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	61														
10	21	40	158		4)										
16	8	23	46												
20		11	26	50											
25			7	19	48										
35				2	16	40									
50					5	18	66								
63						7	20	74							
80			5)				9	19							
100								8	20						
125									6	17					
160										6	15				
200											2	8			
225												4			
250															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 19-19-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	55														
10	19	37	143		4)										
16	8	21	41												
20		10	23	45											
25			7	17	44										
35				2	14	36									
50					4	17	60								
63						6	18								
80			5)				8								
100															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 22-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	45														
10	15	30	118		4)										
16	6	17	34												
20		8	19	37											
25			5	14	36										
35				2	11	30									
50					4	14	49								
63						5	15	55							
80			5)				6	14							
100								5							
125															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 25-25-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	70														
10	24	46	180		4)										
16	10	27	52												
20		12	29	57											
25			8	22	55										
35				3	18	46									
50					6	21	75								
63						8	23	84							
80			5)				10	22							
100								9							
125															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 25-40-13

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	79														
10	27	52	203		4)										
16	11	30	59												
20		14	33	64											
25			9	25	62										
35				3	20	52									
50					7	24	85								
63						9	26	95							
80			5)				11	25							
100								10	25						
125									8	22					
160										8	19				
200											3	11			
225												6			
250															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 27-12-09

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	46														
10	15	30	119		4)										
16	6	17	34												
20		8	29	37											
25			5	14	36										
35				2	12	30									
50					4	14	50								
63						5	15	55							
80			5)				6	14							
100								6							
125									6						3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-26-10

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	68														
10	23	45	175		4)										
16	9	26	51												
20		12	28	55											
25			8	21	54										
35				3	17	44									
50					6	20	73								
63						8	23	82							
80			5)				9	21							
100								8							
125															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 30-30-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	66	257		4)										
16	14	38	74												
20		18	42	81											
25			12	32	79										
35				4	26	65									
50					8	30	108								
63						11	34	121							
80			5)				14	32							
100								13	32						
125									11						
160															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-34-15

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	91														
10	31	60	235		4)										
16	13	35	68												
20		16	38	74											
25			11	29	72										
35				4	23	60									
50					8	28	99								
63						10	31	110							
80			5)				13	29							
100								11	29						
125									10	26					
160										9					
200											3				
225															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 34-55-15

Current [A]	Cross section [mm ²]																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240		
3																	
6	100																
10	34	66	258		4)												
16	14	39	75														
20		18	42	81													
25			12	32	79												
35				4	26	65											
50					8	30	108										
63						11	34	121									
80			5)				14	32									
100								13	32								
125									11	28							
160										10	24	76					
200											3	14	30				
225												7	18	38			
250													3	11	22		
315															5	15	
400																2	3)
1)	See explanation below the tables																
2)	See explanation below the tables																

Terminal box 34-75-15

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	102															
10	35	68	264		4)											
16	14	40	76													
20		19	43	83												
25			12	33	81											
35				4	26	67										
50					9	31	111									
63						12	34	124								
80			5)				15	33								
100								13	33							
125									11	29						
160										10	25	78				
200										4	14	30				
225											7	18	36			
250												4	11	23		
315														5	16	
400															2	3)
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 37-33-10

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	78															
10	26	52	201		4)											
16	11	30	58													
20		14	33	63												
25			9	25	62											
35				3	20	51										
50					6	23	84									
63						9	26	94								
80			5)				11	25								
100								10								3)
125																
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 38-30-22

Current [A]	Cross section [mm ²]															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	
3																
6	110															
10	37	73	283		4)											
16	15	42	82													
20		20	46	89												
25			13	35	87											
35				5	28	72										
50					9	33	119									
63						13	37	133								
80			5)				16	35								
100								14	35							
125									12	31						
160										11	27					
200										4	15					
225											8					
250																3)
1)	See explanation below the tables															
2)	See explanation below the tables															

Terminal box 38-38-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	117														
10	40	77	302		4)										
16	16	45	87												
20		212	49	95											
25			14	37	93										
35				5	30	77									
50					10	35	126								
63						13	39	142							
80			5)				17	37							
100								15	38						
125									13	33					
160										12	29				
200										4	16				
225											8				
250															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 40-60-12

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	100														
10	34	67	260		4)										
16	14	39	75												
20		18	42	82											
25			12	32	80										
35				4	26	66									
50					8	30	109								
63						11	34	122							
80			5)				14	32							
100								13	32						
125									11	28					
160										10	24				
200										4	14				
225											7				
250															3)
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 48-48-20

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	125														
10	43	83	324		4)										
16	18	48	94												
20		23	53	102											
25			15	40	99										
35				6	32	82									
50					11	38	136								
63						14	42	152							
80			5)				18	40							
100							2	16	40						
125									14	36					
160										13	31	95			
200										4	18	37			
225											9	23	47		
250												4	13	28	
315														6	19
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														

Terminal box 60-40-22

Current [A]	Cross section [mm ²]														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
3															
6	128														
10	44	85	332		4)										
16	18	50	96												
20		23	54	105											
25			16	41	102										
35				6	33	84									
50					11	39	139								
63						15	43	156							
80			5)				18	41							
100							2	16	41						
125									14	36					
160										13	32	98			
200										5	18	38			
225											9	23	49		
250												5	14	29	
315														6	20
400															2
1)	See explanation below the tables														
2)	See explanation below the tables														

- 1) Maximum number of terminals depending on the above mentioned apparatus type and the built-in 2 wire terminals.
- 2) Maximum number of terminals depending on the above mentioned apparatus type and the max. number of conductors.
- 3) Maximum number of conductors depending on the cross-section and allowed continuous current for the mentioned apparatus type. The number of conductors is the sum of all incoming conductors and internal wire connections. Bridge links and earth conductors do not count.
- 4) This area can be used for the installation of further terminals taking into account the definition of the clearance parameters.
- 5) Terminal installation in this area requires separate temperature rise tests for each different variant of installation.

16 Report Number

BVS PP 16.2154 EU, as of 2017-07-07

17 Special Conditions for Use

The schedules of limitation of the used terminals must be handed out by passing the complete and relevant documentation of the terminal to the operator by the manufacturer.

18 **Essential Health and Safety Requirements**

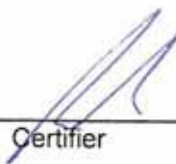
The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2017-07-07
BVS-Kir/Mu A 20170438



Certifier



Approver