1 # EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa03ATEX0732X – Issue 4**

4 Equipment or Protective System: **TX6630 Series Power Supply Chassis**

5 Manufacturer: **Trolex Limited**

6 Address: **10a Newby Road, Hazel Grove, Stockport, Cheshire, SK7 5DY**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No's. See Certificate History

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

EN 60079-0:2012 **EN 60079-11:2012**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

Ⓔx I (M1) [Ex ia Ma] I (-20°C ≤ Ta ≤ +70°C)

Baseefa Customer Reference No. **1159**

Project File No. **12/0618**

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On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0732X – Issue 4**

15 Description of Equipment or Protective System

The TX6630 Series Power Supply Chassis' are powered from an 110Vac or 230Vac mains supply and provide an intrinsically safe nominal 7.5Vdc or 12Vdc output.

The TX6630 Series Power Supply Chassis' consists of a constant voltage transformer, smoothing capacitor, bridge rectifier and current limiting resistors mounted upon a steel backplate; output clamping zener diodes are mounted on a heatsink insulated from, but attached to, the backplate. Optionally, the TX6630 Series Power Supply Chassis may include up to four additional relays mounted on one large or two small PCBs depending upon the version.

Terminals are provided for connection to the mains supply (voltage is selected by a switch or wire link), intrinsically safe dc output and, if fitted, the relay coils and switching contacts.

The TX6630 Series Power Supply Chassis' are intended to be located in an IP20 enclosure in the non-hazardous area, or in an appropriately certified flameproof enclosure in the hazardous area.

The TX6630 Series Power Supply Chassis' are identified in the following format:

POWER SUPPLY CHASSIS TX663X.11.2X

1 - 7.5V, twin PCB	1. No relays
5 - 7.5V, single PCB	2. Two relays
2 - 12V, twin PCB	3. Four relays
6 - 12V, single PCB	

The TX6631 / TX6635 provides an intrinsically safe 7.5Vdc output and the TX6632 / TX6636 provides an intrinsically safe 12Vdc output.

Input / Output Parameters

7.5V TX6631 / TX6635			**12V TX6632 / TX6636**		
U_o	=	9V	U_o	=	14.4V
I_o	=	3.47A	I_o	=	2.37A
P_o	=	12.5W	P_o	=	9.84W
C_i	=	0	C_i	=	0
L_i	=	0	L_i	=	0
C_o	=	1000µF	C_o	=	20µF
L_o	=	54µH	L_o	=	100µH
L_o/R_o	=	48µH/Ω	L_o/R_o	=	54µH/Ω

Relay boards

7.5V TX6631 / TX6635			**12V TX6632 / TX6636**		
U_o	=	0 (terminals 4, 6, 8 & 10)	U_o	=	0 (terminals 4, 6, 8 & 10)
U_m	=	250Vac (terminals 11 - 22)	U_m	=	250Vac (terminals 11 - 22)

16 Report Number

None.

17 Specific Conditions of Use

1. Where the apparatus is installed within a potentially explosive atmosphere, an additional alternative type of protection as listed in EN 50014:1997 + Amendments 1 & 2 must be provided – such as an appropriately certified flameproof enclosure.
2. Where the apparatus may be installed outside the potentially explosive atmosphere, it must be done so in an earthed metal enclosure providing a degree of protection of not less than IP20 as defined in EN 60529:1992.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
P5111.75	1 of 1	G	26.03.14	I.S. Label Details Chassis

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
P5111.05	1 of 1	C	28.01.04	General Arrangement (TX6631/TX6632)
P5111.110	1 of 1	B	03.02.04	Relay (Ralux)
P5111.13	1 of 1	F	28.01.04	Constant Voltage Transformer
P5111.201	1 of 1	A	26.02.04	Circuit Diagram
P5111.203	1 to 3	A	03.02.04	PCB Artwork (Ralux relay version)
P5111.206	1 to 3	C	12.03.13	PCB Artwork (Finder relay version)
P5111.232	1 of 3	B	04.09.08	PCB - Bottom Layer
P5111.232	2 of 3	B	04.09.08	PCB - Top Layer
P5111.232	3 of 3	B	04.09.08	PCB – Top Overlay
P5111.53	1 of 1	E	28.01.04	TX6631/2 Circuit Diagram
P5111.75	1 of 1	D	23.02.04	I.S. Label Details Chassis
P5111-202	1 of 1	A	15.01.04	General Arrangement (TX6635/TX6636)
P5111-202-01	1 of 1	B	01/09/08	General Arrangement
P5111-210	1 of 1	A	13.05.04	Relay (Finder)

20 Certificate History

Certificate No.	Date	Comments
Baseefa03ATEX0732X	14 May 2004	The release of the prime certificate. The associated test and assessment is documented in Test Report No. 03(C)0097. Project File No. 03/0097.
Baseefa03ATEX0732X/1	12 October 2004	To permit electrical and mechanical changes to the PCB. Project File No. 04/0629.
Baseefa03ATEX0732X/2	27 June 2007	To correct the parameters for the TX6631 and TX6635 7.5V Power Supply Chassis. This variation is supported by report GB/BAS/ExTR07.0087/00. Project File No. 07/0110

Certificate No.	Date	Comments
Baseefa03ATEX0732X/3	21 March 2014	To permit changes to PCB layouts inline with report GB/BAS/ExTR07.0078/01. Project File No. 12/0618.
Baseefa03ATEX0732X Issue 4	28 March 2014	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0: 2012 & EN 60079-11: 2012 including the revision of the marking in accordance with these standards. Project File No. 12/0618.
For drawings applicable to each issue, see original of that issue.		