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:**	**Presafe 14 ATEX 4846X**	**Issue 0**
[4]	**Equipment or Protective System:**	**Intrinsically Safe Ex ia Power Supply**	
[5]	**Applicant – Manufacturer or Authorized representative:**	**Austdac Pty Ltd**	
[6]	**Address:**	**Unit 1, 4 Packard Avenue Castle Hill NSW 2154, Austraila**	

[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] **DNV Nemko Presafe AS, notified body number 2460 in accordance with Article 9 of 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 reports listed in section 14.

[9] **Compliance with the Essential Health and Safety Requirements has been assured by compliance with: CENELEC EN 60079-0: 2012, CENELEC EN 60079-7: 2007, CENELEC EN 60079-11: 2012 and EN 60079-18: 2009**

[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 protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.**

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

I M2 (M1) Ex eb ma [ia Ma] I Mb

Ståle Sandstad
For DNV Nemko Presafe AS
Information on electronic signature www.presafe.com

NORSK AKKREDITERING
PROD 021

Date of issue: 2014-06-27

DNV Nemko Presafe AS, Gaustadalleén 30, 0373 Oslo, Norway

EC-Type Examination Certificate

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE No.:** Presafe 14 ATEX 4846X Issue 0

Certificate History

Issue	Description	Report no.	Issue date
0	**Original issue**	**D0001286**	**2014-06-27**

[15] **Description of Equipment or Protective System**

The Intrinsically Safe Ex ia Power Supply Type AC36W-xxV-yyA (where xx is the voltage and yy is the current) is a series of four ranges of power supplies powered from a nominal 100 to 175 Vac mains and are identical in every aspect except their output parameters and the values of components determining their maximum output voltage and maximum output current. The variations of the Power Supply Type AC36W-xxV-yyA are (12.6V, 1.05A - 3.0A), (12.6V, 0.1A - 1A), (16V, 0.55A - 1A) and (16V, 0.1A - 0.5A).

The equipment consists of a 215 mm x 76 mm x 97 mm brass enclosure housing with a component certified, Phoenix terminal block, Ex e connector used for connection to the mains and a two terminal connector used to connect the intrinsically safe output.

Three printed circuit boards are housed within the equipment. The mains switcher board (PCB0288A) and the i.s. output board (PCB0289A) are mounted parallel to each other and the terminal board (PCB0291A) is mounted on the top and at right angle to both boards. All boards and components are fully encapsulated, except the input and output connectors which are only partially encapsulated.

Type Identification

Type AC36W-xxV-yyA

Electrical Data

Refer to point 1 in the Special Conditions for Safe Use

Degrees of protection (IP Code)

Refer to heading number 17

[16] **Project No.:** D0001286

Descriptive Documents

Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
61-247-04	1	Inductor_Power_200uH_4A with 0.25mm_infallible_insulation Mechanical details	01	2013.05.30

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Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
66-170-03	1 of 3	Intrinsically safe Ex ia Power Supply Type AC36W PCB0291A Schematic Diagram	03	2014.03.21
66-170-03	2 of 3	Intrinsically safe Ex ia Power Supply Type AC36W PCB0288A Schematic Diagram	03	2014.03.21
66-170-03	3 of 3	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A Schematic Diagram	03	2014.03.21
66-171-21	7	Intrinsically safe Ex ia Power Supply Type AC36W PCB0288A Artwork Details	02	2013.10.08
66-172-21	7	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A Artwork Details	03	2014.03.20
66-174-21	7	Intrinsically safe Ex ia Power Supply Type AC36W PCB0291A Artwork Details	02	2013.10.08
66-175-06	1	Intrinsically safe Ex ia Power Supply Type AC36W Heatsink Mechanical Details	01	2013.10.03
66-177-06	3	Intrinsically safe Ex ia Power Supply Chassis Type AC36W Mechanical Details	01	2013.10.03
66-178-13	1	Intrinsically safe Ex ia Power Supply Type AC36W Label Details	07	2014.06.23
66-181-13	1	Intrinsically safe Ex ia Power Supply Type AC36W Input Terminal Label Details	01	2013.10.22
66-182-24	1	Intrinsically safe Ex ia Power Supply Type AC36W 12.6V Transformer Certification Details	03	2013.10.09
66-183-06	1	Intrinsically safe Ex ia Power Supply Type AC36W U200 Heatsink Mechanical Details	01	2013.10.03

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Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
66-185-24	1	Intrinsically safe Ex ia Power Supply Type AC36W 16V Transformer Certification Details	03	2013.10.09
66-186-04	2	Intrinsically safe Ex ia Power Supply Type AC36W Assembly Diagram	01	2013.10.22
66-190-15	1	Intrinsically safe Ex ia Power Supply Type AC36W General Arrangement	02	2013.11.05
66-191-06	1	Intrinsically safe Ex ia Power Supply Type AC36W Terminal Plate Mechanical Details	01	2013.10.03
66-192-06	1	Intrinsically safe Ex ia Power Supply Type AC36W Label Plate Mechanical Details	02	2013.11.04
66-179-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-12V-0.1A-3.0A, 16V-0.1A-1.0A PCB0291A Bill of Materials	04	2014.04.08
66-218-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-12V-0.1A-1.0A Bill of Materials	03	2014.04.08
66-219-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-12V-1.05A-3.0A Bill of Materials	03	2014.04.08
66-220-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-16V-0.1A-0.5A Bill of Materials	03	2014.04.08
66-221-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-16V-0.55A-1.0A Bill of Materials	03	2014.04.08
66-222-14	2	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A (12.6V 0.1A - 1.0A) Bill of Materials	03	2014.03.25
66-223-14	2	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A (12.6V 1.05A - 3.0A) Bill of Materials	03	2014.03.25

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Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
66-224-14	2	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A (16V 0.1A - 0.5A) Bill of Materials	03	2014.03.25
66-225-14	2	Intrinsically safe Ex ia Power Supply Type AC36W PCB0289A (16V 0.55A - 1.0A) Bill of Material	03	2014.03.25
66-226-14	6	Intrinsically safe Ex ia Power Supply Variants Type AC36W Output Voltage & Current Variants Select Parts List	01	2014.03.21
66-228-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-12V PCB0288A (12.6V 0.1A - 3.0A) Bill of Materials	01	2014.04.08
66-229-14	2	Intrinsically safe Ex ia Power Supply Type AC36W-16V PCB0288A (16V 0.1A - 1.0A) Bill of Materials	01	2014.04.08

[17] Special Conditions for Safe Use

It is a condition of safe use that the following parameters are taken into account during any installation:

1. The maximum Input Voltage Um is limited to 175 V RMS and the output parameters for the four variations of the type AC36W power supply are as follows:

Type	U_o	I_o	C_o	L_o	L_o/R_o
AC36W-12V-1.05A to 3.0A	12.6V	3.0A	18uF	55uH	22uH/Ohm
AC36W-12V-0.1A to 1.0A	12.6V	1.0A	22uF	57uH	61uH/Ohm
AC36W-16V-0.55A to 1.0A	16V	1.0A	6uF	33uH	29uH/Ohm
AC36W-16V-0.1A to 0.5A	16V	0.5A	11.5uF	41uH	53uH/Ohm

2. The equipment must be housed in a suitably certified enclosure that provides a minimum degree of ingress protection of IP54 and adequate protection from impact to the Ex e certified component (terminal block) when installed in a hazardous area.

[18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE