

1 **UNITED KINGDOM CONFORMITY ASSESSMENT**
2 **UK TYPE EXAMINATION CERTIFICATE**

3 **Product Intended for use in Potentially Explosive Atmospheres**
4 **UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

5 Type Examination Certificate Number: **ExVeritas 21UKEX0840** Issue: **1**

6 Product: Earth-Rite II P2 Static Earthing System – Power Supply

7 Manufacturer: Newson Gale Limited

8 Address: Omega House, Private Road 8, Colwick, Nottingham, NG4 2JX, United Kingdom

9 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

10 ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), 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 Schedule 1 of the Regulations.

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

EN IEC 60079-0: 2018

EN 60079-7:2015+A1:2018

EN 60079-11: 2012

EN 60079-15: 2010

EN 60079-31: 2014

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

12 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

13 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

14 The marking of the equipment shall include the following:



II 3(1)G
II 2(1)D
Ex ec nC [ia Ga] IIC T4 Gc
Ex tb [ia Da] IIIC T70°C Db

(Ta = -40°C to +55°C)



No. 8613

On behalf of ExVeritas



S Clarke CEng MSc FIET
Managing Director

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The status of this certificate can be verified at www.exveritas.com

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Schedule

13 Description of Product

The Earth-Rite ER II P2 Static Earthing System Power Supply Unit is intrinsically safe associated apparatus that provides an intrinsically safe output for connection to earth monitoring equipment in the hazardous area. The Power Supply consists of a single circuit board, mounted inside an IP66 GRP enclosure. There are two versions:

- A.C. version (model code ER2PSEA), provides an isolated output from either a 220-240 Vac supply or a 110-120 Vac supply.
- D.C. version (model code ER2PSED) provides an isolated output from a nominally 12-30 Vdc supply, which may be mains-derived or from a vehicle battery

The installation must be in accordance with the relevant control drawing ERII-Q-10175 AI. The maximum input voltage (U_m) is 250 V for both versions. Both versions have the same safety description at the intrinsically safe output at PL4:

$$U_o = 8.61 \text{ V} \quad I_o = 152 \text{ mA} \quad P_o = 715 \text{ mW} \quad C_o = 5.9 \text{ } \mu\text{F} \quad L_o = 1.5 \text{ mH}$$

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3140B/1	2022-04-29	0	Initial issue of the Prime Certificate
R3770/A/4	2022-12-05	1	<ol style="list-style-type: none"> 1. To introduce substitution of some safety critical components. 2. The Ex marking code has been amended to reflect correctness to the latest applicable standards.

14.2 Compliance Drawings:

Issue 1

Drawing No.:	Rev. Level:	Title:	Date:
ER II GA 002	6	ERII P2 Power Supply Unit	24/06/2010
AA0190R3A-CERT	A	ERII PSU AC Board	25/03/2010
AA0190R3ACB-CERT	A	ERII AC Supply PCB Layout	25/03/2010
AA0190R3ACT-CERT	A	ERII AC Supply PCB Layout	25/03/2010
AA0190R3ASS-CERT	A	ERII AC Supply PCB Layout	25/03/2010
AA0190R3B-PLC	B	*ERII PSU AC Certified Parts List	10/11/2021
BE008-0-01 R3	B	Transformer Details	08/04/2010
BE010-0-01 R1C	C	Transformer Details DC Power Transformer	13/04/2010
ERII-Q-10175 AI	5	Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - AC Terrestrial (Sheet 1 of 3)	06/10/2011
ERII-Q-10175 AI	5	Earth-Rite II P2 MGv and PLUS – Control Drawing – DC Mobile (sheet 2 of 3)	06/10/2011

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Issue 1

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Drawing No.:	Rev. Level:	Title:	Date:
ERII-Q-10175 AI	5	Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - DC Terrestrial (Sheet 3 of 3)	06/10/2011
AA0189-CERT	2A	ERII DC PSU	15/09/2015
AA0189-PLC	R2C	*ERII DC PSU Certified Parts List	14/02/2022
ER II LAB 002 UKCA	AC	*UKCA CERTIFICATION DETAIL EARTH-RITE II POWER SUPPLY IN APPROVED GRP ENCLOSURE	22/11/2022

*Note: An * is included before the title of documents that are new or revised.*

15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

None

15.2 Routine tests

1. The following test shall be performed on 100% of transformers. Each transformer shall be dielectric strength tested in accordance with EN 60079-11:2012 clause 11.2 as follows: 1500 Vac shall be applied between the primary and secondary windings for a minimum of 60 s. The maximum current shall not exceed 5 mA and there shall be no evidence of insulation breakdown. Alternatively, the test may be performed at 1800 Vac for a minimum of 1 s.
2. The manufacturer shall ensure that the relevant control drawing is supplied with each unit or batch of units.

16 Essential Health and Safety Requirements (Regulations Schedule 1)

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform ExVeritas of any modifications to the design of the product described by this schedule.

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