IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 12.0021U	Issue No: 0	Certificate history: Issue No. 0 (2014-07-11)
Status:	**Current**	Page 1 of 4	
Date of Issue:	**2014-07-11**		
Applicant:	**GE Intelligent Platforms** 2500 Austin Drive Charlottesville Virginia 22911 **United States of America**		
Electrical Apparatus:	**8920-PS-DC IS System Power Supply d.c. Input with 8724-CA-PS Module Carrier**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety**		
Marking:	**[Ex ia Ga] (-40°C ≤ Ta ≤ +70°C)** **[Ex ia Da] (-40°C ≤ Ta ≤ +70°C)**		

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: General Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

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Manufacturer:	**GE Intelligent Platforms** 2500 Austin Drive Charlottesville Virginia 22911 **United States of America**	
Additional Manufacturing location(s):		

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR12.0026/00

Quality Assessment Report:

GB/FME/QAR11.0010/03

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The 8920-PS-DC, IS System Power Supply, d.c. Input is a module comprising electronic components on two printed circuit boards mounted within a metal enclosure. The electrical circuit is designed for a d.c. input voltage of 18 to 36V d.c. with the secondary output voltage rectified and smoothed and provided with triplicated crowbar circuits. Although designed for a d.c. input voltage of 18 to 36V the circuit meets the segregation requirements for U_m = 253V.

The apparatus is designed to provide a galvanically isolated, fault tolerant, voltage clamped source of 18V, fused at 5A, to supply the power supply bus rails for the GEIP 8000 Carrier Unit. In addition to the main power supply output two Power Control Lines, P-Fail and P-Share, are provided which are infallibly clamped to the 18V output and are current limited by infallible resistors. These are used within the safe area circuits for control purposes.

This supply powers a number of input/output modules, mounted on the GEIP 8000 Carrier Unit and designed to accept U_m = 18V, and each I/O module provides the local voltage and current limitation necessary to make the output suitable for connection within an Intrinsically Safe circuit.

The 8724-CA-PS, IS Module Power Supply Carrier is designed to provide a mounting arrangement for the 8920-PS-DC, IS System Power Supply module. It provides segregation between the 18V high current output lines and both the Railbus data lines and the two Power Control Circuit Data Lines, P-Fail and P?Share. The Power Supply Carrier has a suitable receptacle to mate with the Power Supply module, two connectors one female and one male to interconnect with other carrier units and a printed circuit board providing the interconnections. The segregation requirements are met on the board and all of the connectors. The supply, the data lines and the control lines must all share a common reference point.

See the additional sheet for the Component’s Input / Output Parameters and Schedule of Limitations

CONDITIONS OF CERTIFICATION: NO

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Additional information:

Input / Output Parameters

Input Power Supply CON1 Pins 1 - 4

U_m = 253V r.m.s

The electrical circuit is designed to be supplied from a d.c. source of 18V to 36V.

High Current Power Supply Lines

Carrier Connector CON1 Pins 1a, b, & c, 2a, b & c, and 7a, 15a 16a, b & c
and Carrier Connector CON3 Pins 1a, b, & c, 2a & 10a, and 15a, b & c, 16a, b & c

U_m = 18V (Power input to carrier from other Certified 8920-PS-DC, IS System Power Supply Units)

The maximum Output Voltage is U_m, (18V) (Power output from this and other Power Supply Units)

Power Control Inputs / Outputs

Carrier Connector CON1 Pins15b & c and CON3 Pins 2b & c

U_m = 18V (P-* Control Inputs to carrier from other PSU's)

The maximum output voltage is U_m (18V) (P-* Control Outputs from this and other Power Supply Units)

Data Inputs / Outputs

Carrier Connector CON1 Pins 4, 5, 6(a, b & c) 7b & c, 8 to 14(a, b & c)
and Carrier Connector CON3 Pins 3, 4, 5, 6, 7, 8, 9(a, b & c), 10b & c, 11, 12, 13(a, b & c)

U_m = 18V (Data inputs to carrier from RBI)

The maximum output voltage is U_m (18V) (P-* Control Outputs from this and other Power Supply Units)

Schedule of Limitations

1) The 8920-PS-DC, IS System Power Supply Module, output voltage requires further voltage and current limitation before it can be connected within an Intrinsically safe circuit.

2) The 8920-PS-DC, IS System Power Supply Module and the 8724-CA-PS Module Power Supply Carrier must be mounted with suitable connection facilities such that the external connectors are provided with a degree of protection of at least IP20.

3) The 8724-CA-PS Module Power Supply Carrier must be segregated from any other non IS or IS circuits.