



# IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC Certification System for Explosive Atmospheres  
for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)  
**UNIT VERIFICATION**

Certificate No.:	<b>IECEx KLCS 20.0003X</b>	Page 1 of 3	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 0	
Date of Issue:	<b>2020-10-19</b>		
Applicant:	<b>Hind Rectifier Limited</b> Plot No. 110/111, E-16 Road, M.I.D.C., Satpur, Nashik 422007 India		
Equipment:	<b>DC Power Supply Unit</b>		
Serial number(s) or Unique Identification:	<b>2020/F192020677/I/1</b>		
Type of Protection:	<b>Increased Safety 'eb', Liquid immersion 'ob', Pressurized enclosure 'pxb'</b>		
Marking:	<b>Ex eb ob pxb IIC T3 Gb (0 °C ≤ to ≤ +45 °C)</b>		

Approved for issue on behalf of the IECEx  
Certification Body:

**Ravi Paranjpe**

Position:

**Director (Operations)**

Signature:  
(for printed version)

Date:

**19/10/2020**

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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**Karandikar Laboratories Certification Services**  
Gat No. 142, Boisar Chillar Rd.,  
Opp. Union Park, At Betegaon,  
Boisar (E), Tal- Palghar  
Maharashtra 401501  
India



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## IECEx Certificate of Conformity

Certificate No.: **IECEx KLCS 20.0003X**

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Date of issue: **2020-10-19**

Issue No: 0

Manufacturer: **Hind Rectifier Limited**  
Plot No. 110/111, M.I.D.C., Satpur,  
Nashik 422007  
India

Additional  
manufacturing  
locations:

This Unit verification certificate is issued as verification that the Apparatus identified on page 1, was assessed and tested and found to comply with the IEC Standard list below. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

### STANDARDS :

The equipment 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 Explosive atmospheres - Part 0: General requirements  
Edition:6.0

IEC 60079-2:2014-07 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"  
Edition:6

IEC 60079-6:2015 Explosive atmospheres -Part 6: Equipment protection by liquid immersion "o"  
Edition:4.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

This Certificate **does not** indicate compliance with 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:

[IN/KLCS/ExTR20.0002/00](#)

Quality Assessment Report:

*As this is a Unit Verification Certificate, no QAR is applicable as this certificate is specific to the items listed by serial number or other unique identification.*



## IECEx Certificate of Conformity

Certificate No.: IECEx KLCS 20.0003X

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Date of issue: 2020-10-19

Issue No: 0

### EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The DC Power Supply Unit, Serial No. 2020/F192020677/1/1, provides constant DC current for Electrochemical application.

The DC Current output is controlled regardless of fluctuations in the AC mains input or change in the DC load.

The enclosure of DC Power Supply Unit is made of Stainless steel 316 L material with minimum thickness of 2 mm.

The transformer and rectifier are immersed in the protective mineral oil. The busbars are partially immersed in protective mineral oil. The busbar portions which are not immersed, are assessed to the requirements of increased safety. The oil level indicator with minimum and maximum oil level is provided on the tank. Breather with drying agent is provided on the Oil tank.

The thyristor converter, Electronic control and annunciator are installed inside the purge panel. A pre-certified Ex db ib [ib Gb] [pxb Gb] IIC T4 Gb, vide certificate no. IECEx UL 08.0003X issue no. 10 with Vent, vide certificate no. IECEx UL 15.0147X issue no. 02, purge controller is used to purge and pressurize the Purge Panel of DC Power Supply Unit. The Purge Panel of DC power Supply unit houses the controlling and indicating system of oil cooled Silicon Controlled Rectifiers (SCR) placed in Oil tank, which are responsible for converting the AC into DC. The enclosure also houses the associated components of SCR like device fuse, trigger modules etc. The purge panel houses the indicating lamps, meters, annunciation window, Accept/Reset push buttons and current setting potentiometer. Pre-certified, Push buttons, emergency switch and selector switch, vide certificate no. IECEx INE 18.0003U, Issue 0 devices are installed on the door of the purge panel of the DC Power Supply Unit.

Earthing and bonding facility is provided on the DC power Supply Unit.

The DC Power Supply unit meets the requirements of degree of protection IP66.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- Appropriately Ex db or Ex eb certified with minimum IP66 rating cable glands, blanking plugs should be used.
- Oil level in tank shall not be less than minimum Oil level specified by manufacturer.
- Manufacturer's Instructions for maintenance and installation for DC power Supply unit provided in Instruction manual should be strictly followed.
- Inspection of the DC power Supply unit shall be done as per requirements of IEC 60079-17.
- User to ensure that minimum Purging Flow rate should be 12 SCFM (339.8 Lpm) and Purging Time should be minimum 18 Minutes. DC Power Supply Unit should not be energized until purging time is completed.
- The Inlet pressure of the pressurized panel should not be less than 2 bar.