

[1] **EU - TYPE EXAMINATION CERTIFICATE**
[2] **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU Annex III, Module B

[3] EU – Type Examination Certificate Number ACE25ATEX052X Rev00
[4] Product Explosion-Proof Lithium-Ion Battery Power Supply for Mining Use Model: DXBL74060/322C(T)
[5] Manufacturer Shandong Xinsha Monorail Transport Machinery Co., Ltd
[6] Address Hushan Road West Section, Economic Development Zone, Xintai City, Tai'an City, Shandong, 271200, P.R.China

[7] This equipment or protective system and any acceptable variation there to are specified in the schedule to this certificate and the documents therein referred to.

[8] Advanced Consulting and Engineering Iberia SL (A.C.&E. Iberia S.L.), Notified body Accreditation nº: NB3024 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and Council, dated 26 February 2014, 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 Annex II to the Directive

The examination and test results are recorded in confidential Report nº. EX_EXD024_25_25-1528

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

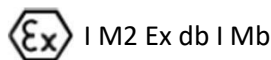
EN IEC 60079-0:2018 : Explosive atmospheres — Part 0: Equipment — General requirements

EN 60079-1:2014: Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures 'd'

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the point 17 of This certificate.

[11] This EU – Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



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Date: 23/12/2025



Advanced Consulting and Engineering

Iberia SL

Notified Body No NB3024

Matteo Marconi, CEO

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[13]

SCHEDULE

[14]

EU-Type Examination Certificate No: ACE25ATEX052X Rev00

[15]

Description of equipment

1. Construction Overview

DXBL74060/322C(T) Explosion-Proof Lithium-Ion Battery Power Supply for Mining Use has two "d" chambers, it includes a battery chamber and an electrical chamber. The material of the enclosure is Q355D steel, and the two chambers are connected by three explosion-proof terminal connectors. The battery includes the battery compartment cover and the main body. The electrical chamber includes three electrical compartment cover and the main body. There is a solator knob shaft on the main body. There are two switch buttons and one observation window on the electrical compartment cover, the observation window is made of tempered glass. There are sealing rings between all electrical compartment covers and main body, and the material of the sealing rings is nitrile rubber. There are 3-M25×1.5 hole on the main body, which is sealed with a certified breather/drain plug. There are 8-M20×1.5 cable entries, 4-M25×1.5 cable entries and 6-M28×1.5 cable entries on the electrical chamber for the installation of explosion-proof cable glands. Both external and internal earthing are provided. The degree of protection of the enclosure is IP54, according to IEC 60079-0 and IEC 60529.

2. Model designation:

DX B L 74060 / 322 C (T)

"DX": Power source;

"B": Explosion-proof;

"L": Li-ion battery;

"74060": Rated output energy, W·h;

"322": Rated output voltage, V

"C": Vehicle;

"T": Revision No.;

3. Electrical parameters:

Rated output voltage: DC322V;

Rated output current: 115A;

Rated input voltage range of power source: DC275V ~ DC350V;

Rated input current range of power source: 0A ~ 70A;

Rated capacity: 230Ah;

Rated output energy of power source: 74060W·h;

Maximum permissible operating temperature of a single cell: 55°C;

Temperature protection and recovery temperature: 53°C.

4. Ambient temperature: 0°C ~ +40°C;

5. Ingress Protection class: IP54.

The following are the details of the Ex components:

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EU-Type Examination Certificate

item	Ex Components	Manufacture	Certificate No.	Ex marking	Standards	Service temperature range
1	Cable gland M20×1.5 8-10 M25×1.5 15-18 M28×1.5 17-19	SMT Scharf GmbH	IBExU20ATEX 1101	Ex db I Mb	EN IEC 60079- 0:2018 EN 60079- 1:2014	-20°C to +80°C
2	BDM25D Breather/Drainer Plugs	CCG Cable Termination s(Pty) Ltd	CML 16ATEX 1029X	Ex db I Mb	EN 60079- 0:2018 EN 60079- 4:2014	-60°C to +95°C
<p>Note 1 . The Cable gland and the Breather/Drainer Plugs is certified according to EN IEC 60079-0:2018 And EN 60079-1:2014, it is the same version standard on this product.</p>						

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[13] **SCHEDULE**

[14] EU – Type Examination Certificate No: ACE25ATEX052X Rev00

[16] Test documents are listed in the test report nº
EX_EXD027_25_25-1849

[17] Special conditions for safe use

1. “WARNING – DO NOT OPEN WHEN ENERGIZED”;
2. “WARNING – DO NOT CHARGE IN HAZARDOUS AREA”;
3. “WARNING – DO NOT REPLACE BATTERY IN HAZARDOUS AREA”;
4. Use screws with yield strength $\geq 640\text{MPa}$;
5. The flameproof joint surface is not allowed to be repaired;
6. When the cable entries are not in use, the end user shall seal them with certified explosion-proof plugs.

[18] Essential Health and Safety Requirements
Are fulfilled by the harmonized standard

[19] Documents and technical datasheets:

Title	Object	Revision	Date
DXBL74060/322C(T) Explosion-Proof Lithium-Ion Battery Power Supply for Mining Use User Manual	HY/RD/TD-1-2406K1-2025	A/0	2025.5.21
General drawing	2100000-FB01M1K1	A/0	2025.5.21
Electrical schematic diagram	2120002-FB01M1K1	A/0	2025.5.21
DCDC assembly mounting plate	2100001-FB01M1K1	A/0	2025.5.21
Switch power mounting plate	2100001-FB01M1K1-1	A/0	2025.5.21
DC mounting board	2100001-FB01M1K1-2	A/0	2025.5.21
Breathing valve mounting seat	2100002-FB01M1K1	A/0	2025.5.21
PDU insulation meter module fixing bracket	2100003-FB01M1K1	A/0	2025.5.21
Current sensor bracket	2100004-FB01M1K1	A/0	2025.5.21
Electrical installation board 1	2100005-FB01M1K1	A/0	2025.5.21
Ship-shaped switch bracket	2100006-FB01M1K1	A/0	2025.5.21
Isolator knob handle	2100007-FB01M1K1	A/0	2025.5.21

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Isolating switch mounting plate	2100008-FB01M1K1	A/0	2025.5.21
Isolator knob shaft	2100009-FB01M1K1	A/0	2025.5.21
Display screen fixing plate	2100010-FB01M1K1	A/0	2025.5.21
Inquiry paging button bracket	2100011-FB01M1K1	A/0	2025.5.21
Power button bracket	2100012-FB01M1K1	A/0	2025.5.21
Machine bracket	2100013-FB01M1K1	A/0	2025.5.21
Machine mounting plate	2100014-FB01M1K1	A/0	2025.5.21
Module tray	2100015-FB01M1K1	A/0	2025.5.21
Electrical installation board 2	2100016-FB01M1K1	A/0	2025.5.21
Electrical cover 1	2100017-FB01M1K1	A/0	2025.5.21
Electrical cover 2	2100018-FB01M1K1	A/0	2025.5.21
Electrical cover 3	2100019-FB01M1K1	A/0	2025.5.21
Battery compartment cover	2100020-FB01M1K1	A/0	2025.5.21
Bell mouth end cover	2100021-FB01M1K1	A/0	2025.5.21
Main body assembly	2100022-FB01M1K1	A/0	2025.5.21
Isolator knob handle limit sleeve	2100023-FB01M1K1	A/0	2025.5.21
Power switch button lever	2100024-FB01M1K1	A/0	2025.5.21
Turn page switch button lever	2100025-FB01M1K1	A/0	2025.5.21
Button base	2100026-FB01M1K1	A/0	2025.5.21
Button sleeve	2100027-FB01M1K1	A/0	2025.5.21
Isolator knob sleeve	2100028-FB01M1K1	A/0	2025.5.21
Battery management system housing	2100029-FB01M1K1	A/0	2025.5.21
Insulation detection module housing	2100030-FB01M1K1	A/0	2025.5.21
Isolator knob base	2100031-FB01M1K1	A/0	2025.5.21
Waterproofing sheet	2100032-FB01M1K1	A/0	2025.5.21
Battery compartment flange surface	2100033-FB01M1K1	A/0	2025.5.21
Electrical chamber flange surface	2100034-FB01M1K1	A/0	2025.5.21
Viewing window of display screen	3900031-FB01M1K1	A/0	2025.5.21
Battery pack structure diagram	2100035-FB01M1K1	A/0	2025.5.21
1P10S module overall diagram	2100036-FB01M1K1	A/0	2025.5.21

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Battery compartment Explosive Plate	2100037-FB01M1K1	A/0	2025.5.21
Cable Gland Installation Plate	2100038-FB01M1K1	A/0	2025.5.21
Display screen observation window sealed copper gasket	2101002-FB01M1K1	A/0	2025.5.21
Display screen gasket	2104011-FB01M1K1	A/0	2025.5.21
Electrical cover 3 O-ring	2100600-FB01M1K1	A/0	2025.5.21
Electrical cover 2 O-ring	2100610-FB01M1K1	A/0	2025.5.21
Electrical cover 1 O-ring	2100620-FB01M1K1	A/0	2025.5.21
Battery pack nameplate	3901030-FB01M1K1	A/0	2025.5.21
Explosion-proof terminal connector	JD5-220-ZT	A/0	2025.1.02
Connector socket	JXZ-JD5-220	A/0	2025.1.02
Copper rod	TG-Φ7M4-33	A/0	2025.1.02
Insulation pad	JYD-JD5-220	A/0	2025.1.02
Explosion-proof terminal connector	JF12-660	A/0	2025.5.05
Insulation pad	JYD-JF12-660	A/0	2025.5.05
Insulation sleeve	JYT-JF12-660	A/0	2025.5.05
Plate	YB-JF12	A/0	2025.5.05
Copper block	TK-JF12	A/0	2025.5.05
Copper rod	TG-JF12-660-100	A/0	2025.5.05
Nameplate	3901001-FB01M1K1	A/0	2025.5.21
EX and CE logo	3901012-FB01M1K1	A/0	2025.5.21
Explosion-proof signboard	3901003-FB01M1K1	A/0	2025.5.21
Warning sign	3901004-FB01M1K1	A/0	2025.5.21
Isolator signboard	3901008-FB01M1K1	A/0	2025.5.21
Grounding label	3901009-FB01M1K1	A/0	2025.5.21
No opening of the cover with power on sign	3901011-FB01M1K1	A/0	2025.5.21
Upward signboard	3901025-FB01M1K1	A/0	2025.5.21
Warning sign	3901024-FB01M1K1	A/0	2025.5.21
Explosion-proof cable glands with ATEX certificate	IBExU20ATEX1101	Issue No: 1	2024.8.20
Explosion-proof breather drain plug with ATEX certificate	CML16ATEX1029X	Issue No: 3	2020.12.24

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Material Certificate of 45#STEEL	EX QR/QC-50-1(8.6)	A/0	2025.5.21
Material certificate of wiring terminal	EX QR/QC-50-2(8.6)	A/0	2025.5.21
Material Test Certificate for H62 copper bar	EX QR/QC-50-3(8.6)	A/0	2025.5.21
Material certificate of Q235 Steel	EX QR/QC-50-4(8.6)	A/0	2025.5.21
Material certificate of Q355D	EX QR/QC-50-5(8.6)	A/0	2025.5.21
Material certificate of nitrile rubber	EX QR/QC-50-6(8.6)	A/0	2025.5.21
Material certificate of Tempered glass	EX QR/QC-50-7(8.6)	A/0	2025.5.21
Material certification for 304 stainless steel plate	EX QR/QC-50-8(8.6)	A/0	2025.5.21
BMS schematic diagram	2120003-FB01M1K1	A/0	2025.5.21
IECEX test report	IECEX Test report number: CN/CMExC/ExTR25.0040 Testing Laboratory: China National Quality Supervision & Test Center for Explosion-proof and Safety Products for Coal Mine (CMExC)	00	2025.11.15

The above-mentioned documents are strictly confidential and they are of only use of authorities. A copy of the documents is saved by A.C.&E. Iberia S.L.

[20]

Certificate History

Certificate Number	Rev.	Comments	Date
ACE25ATEX052X	00	First emission	23/12/2025

Date: 23/12/2025



Advanced Consulting and Engineering

Iberia SL

Notified Body No NB3024

Matteo Marconi, CEO

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