

1 EU - Type Examination Certificate

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: ExVeritas 21ATEX0846X Issue: 0

4 Equipment: Explosion-proof air conditioner

5 Manufacturer: Wuxi Kangning Electrical Apparatus for Explosive Atmosphere Co., Ltd.

6 Address: No.102 Jinhui Road,
Huishan Economic Development Zone,
Wuxi City, Jiangsu Province, P. R. China

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 ExVeritas, Notified Body number 2804 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

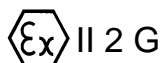
9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN 60079-0: 2018 EN 60079-1: 2014 EN60079-2:2014 EN60079-11:2012 EN60079-18:2015+A1:2017

10 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.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall include the following:



Ex db ib mb pxb IIC T4 Gb

Tamb -20/40°C to +60°C

13 Description of Equipment or Protective System

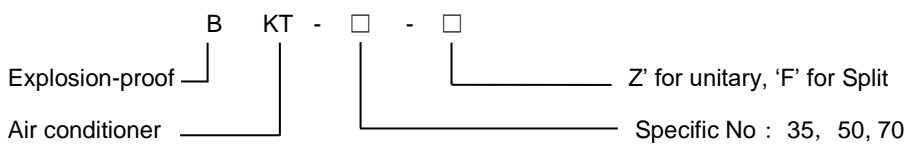
Equipment: Explosion-proof air conditioner

Type: BKT series

BKT series Explosion-proof air conditioner (hereafter referred to be as air conditioner) is applied in hazardous locations of Zone 1, Zone 2 hazardous areas (explosive gas atmospheres except coal mine) where group IIA, IIB, IIC grade T1 ... T4 explosive gas or vapor presents.

The air conditioner can be used in chemical, petrochemical, refining, electrical power, pharmaceuticals, and marine field where have workshop, control room, cabin room, warehouse need to control temperature.

Product Model



Ambient temperature range

BKT-□-Z unitary Explosion-proof air conditioner: -40°C to +60°C

- a) Cooling mode: +18°C to +60°C
- b) Heating mode: -40°C to +20°C

BKT-□-F Split Explosion-proof air Conditioner: -20°C to +60°C

- a) Cooling mode: +18°C to +60°C
- b) Heating mode: -20°C to +30°C

Equipment structure

For BKT-□-Z unitary Explosion-proof air conditioner, it consists of an enclosure, compressor (type of protection 'mb pxb'), BKX series Explosion-proof electrical control box, BYD Flameproof single-phase motor and BDRQ-0.5 Explosion-proof Electrical Heater.

Except the compressor, all the other electrical parts had been certified as table below:

Certificated Devices	Certificate no.	Ex marking and T _{amb}	Comment
BKX-1 & BKX-2 explosion-proof electrical control box	IECEX Exv 21.0004X ExVeritas 21ATEX0755X	Ex db [ib Gb] IIC T6 Gb T _{amb} : -40°C to +60°C	
BYD series Flameproof single-phase motor	IECEX Exv 21.0021X ExVeritas 21ATEX0811X	Ex db IIC T4 Gb T _{amb} : -40°C to +60°C	
BDRQ-0.5 Explosion-proof Electrical Heater	IECEX CNEX 17.0017X	Ex db IIC T4 Gb T _{amb} : -40°C to +20°C	Only working at heat mode for air conditioner

For BKT-□-F Split Explosion-proof air conditioner, it consists of indoor enclosure outdoor enclosure, compressor (type of protection 'mb pxb'), BKX series Explosion-proof electrical control box, BCW series temperature sensor, BYD Flameproof single-phase motor, BH series solenoid directional valve, BCX-220 Explosion-proof electrical operation box and BYK-1 Remote control.

Certificate: ExVeritas 21ATEX0846X

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Except the compressor, all the other electrical parts had been certified as table below.

Certificated Devices	Certificate no.	Ex marking and T _{amb}	Comment
BKX-1 & BKX-2 explosion-proof electrical control box	IECEX Exv 21.0004X ExVeritas 21ATEX0755X	Ex db [ib Gb] IIC T6 Gb T _{amb} : -40°C to +60°C	
BCW-01 & BCW-02 temperature sensor	IECEX Exv 19.0038X ExVeritas 19ATEX0510X	Ex mb IIC T4 Gb T _{amb} : -20°C to +60°C	
BYD series Flameproof single-phase motor	IECEX Exv 21.0021X ExVeritas 21ATEX0811X	Ex db IIC T4 Gb T _{amb} : -40°C to +60°C	
BH-01 & BH-02 solenoid directional valve	IECEX Exv 19.0011X ExVeritas 19ATEX0455X	Ex mb IIC T4 Gb T _{amb} : -20°C to +30°C	Only working at heating mode for the split air conditioner
BCX-220 Explosion-proof electrical operation box	IECEX Exv 19.0022X ExVeritas 19ATEX0484X	Ex db IIC T4 Gb T _{amb} : -20°C to +60°C	
BYK-1 Remote control	IECEX Exv 19.0074 ExVeritas 19ATEX0570	Ex ib IIC T4 Gb T _{amb} : -20°C to +60°C	

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3312/A/1	1 st June 2021	0	Initial issue of the Prime Certificate

14.2 Compliance Drawings:

Issue 0

Description	Number	Issue	Date
BKT-35,50,70-F Explosion-proof split air conditioner general drawing	KN201201.00a~c	Rev.0	2020-12-25
BKT-35-F Explosion-proof split air conditioner electric circuit diagram	KN201201.00a-1	Rev.0	2020-12-25
BKT-50-F Explosion-proof split air conditioner electric circuit diagram	KN201201.00b-1	Rev.0	2020-12-25
BKT-70-F Explosion-proof split air conditioner electric circuit diagram	KN201201.00c-1	Rev.0	2020-12-25

Certificate: ExVeritas 21ATEX0846X

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

BKT-35 Explosion-proof split air conditioner electric wiring diagram	KN201201.00a-2	Rev.0	2020-12-25
BKT-50-F Explosion-proof split air conditioner electric wiring diagram	KN201201.00b-2	Rev.0	2020-12-25
BKT-70-F Explosion-proof split air conditioner electric wiring diagram	KN201201.00c-2	Rev.0	2020-12-25
Nameplate	KN201203.00a~c-1	Rev.0	2021-12-20
Explosion-proof split air conditioner indoor unit general drawing	KN201201.01a~c	Rev.0	2020-12-25
Copper earth plate	KN201201.01a~c-1	Rev.0	2020-12-25
Warning sign	KN201201.01a~c-2	Rev.0	2020-12-25
GF-97x645,97x712,106x888,116x1040 Cross fan assembly drawing	KN201201.01a~c.1	Rev.0	2020-12-25
Explosion-proof split air conditioner outdoor unit general drawing	KN201201.02a~c	Rev.0	2020-12-25
ZF-395,460,560 Axial fan assembly drawing	KN201201.02a~c.1	Rev.0	2020-12-25
Earth plate	KN201201.01.4-10	Rev.0	2017-03-01
BKT-35,50,70-Z Explosion-proof unitary Air conditioner assembly drawing	KN201203.00a~c	Rev.0	2020-12-20
Nameplate	KN201203.00a~c-1	Rev.0	2021-12-20
KSD301(201)Temperature switch	KN201203.00a~c-3	Rev.0	2020-12-20
Thermostat	KN201203.00a~c-2	Rev.0	2020-12-20
Grounding copper plate	KN201203.00a~c-6	Rev.0	2020-12-20
Electrical circuit diagram	KN201203.00a~c-4	Rev.0	2020-12-20
Electrical wiring diagram	KN201203.00a~c-5	Rev.0	2020-12-20
DF centrifugal fan assembly	KN201203.01a~c	Rev.0	2020-12-20
ZF axial fan assembly drawing	KN201203.03a~c	Rev.0	2020-12-20
Earth plate	KN201201.01.4-10	Rev.0	2017-03-01
Grounding plate 2	KN200804.00a-f-3	Rev.0	2017-03-01
BY ₁ explosion-proof compressor (used for BKT-□-Z unitary Explosion-proof air conditioner)			
BY ₁ explosion-proof compressor	KN201203.02a~c	Rev.0	2020-12-20
Nameplate	KN201203.02a~c-1	Rev.0	2021-12-20
Warning sign	KN201203.02a~c-2	Rev.0	2020-12-20
Pressurization protection electrical diagram	KN201203.02a~c-5	Rev.0	2020-12-20
Pressurization system diagram	KN201203.02a~c-6	Rev.0	2020-12-20
Compressor	KN201203.02a~c.1	Rev.0	2020-12-20
Encapsulation enclosure	KN201203.02a~c.1-1	Rev.0	2020-12-20
BY explosion-proof compressor (used for BKT-□-F split Explosion-proof air conditioner)			
BY explosion-proof compressor	KN201201.03a~c	Rev.0	2020-12-20
Nameplate	KN201201.03a~c-3	Rev.0	2021-12-20
Warning sign	KN201201.03a~c-6	Rev.0	2020-12-20
Pressurization protection electrical diagram	KN201201.03a~c-5	Rev.0	2020-12-20
Pressurization system diagram	KN201201.03a~c-4	Rev.0	2020-12-20
Compressor	KN201201.03a~c.1	Rev.0	2020-12-20
Encapsulation enclosure	KN201201.03a~c.1-1	Rev.0	2020-12-20

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- READ THE INSTRUCTIONS BEFORE USED.
- When operating and maintaining, all the “Specific Conditions of Use” of certified electrical parts shall be checked.

Certificate: ExVeritas 21ATEX0846X

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.



15.2 Conditions for Use (Routine tests) Manufacturer's responsibility

1. According to clause 17.1 of EN60079-2:2014, the performance of safety devices provided with the pressurized enclosure shall be verified.
2. The leakage of protection gas shall be tested as specified in clause 16.3 of EN60079-2:2014.
3. The encapsulation terminal of the explosion-proof compressor shall submitted visual inspections test in Clause 9.1 of standard EN60079-18.
4. The encapsulation terminal of the explosion-proof compressor shall submitted dielectric strength test in Clause 9.2 of standard EN60079-18.

Essential Health and Safety Requirements

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 the Notified Body of any modifications to the design of the product described by this schedule.

Certificate: ExVeritas 21ATEX0846X

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.