

Supplier Info
Supplier Name *

LIWA PETROLEUM & INDUSTRIAL SUPPLIES L.L.C.

Supplier Code

0010000261

Supplier Contact person Name *

LIWA PETROLEUM & INDUSTRIAL SUPPLIES L.L.C.

Supplier Contact person Email

sandeep@lwachem.ae

Vendor/Local Manufacturer

Principal/Manufacturer Code	Principal/Manufacturer Name	Country Of Origin	Agency Types									
20031215	DongGuan Pan American Electronics Co., Ltd	China										
			Manage	Agency Type	Certificate No	Issue Date	Expiry Date	Product Groups				
				Representation (R)		5/7/2019	7/4/2024					
								Manage	Product Commodity	Product Commodity Code	Product Group	Pre-Qualification Status
									32 - ELECTRICAL	3222 - LIGHTINGS & FITTINGS	322216 - LIGHTFITTINGS - (EXPLOSION PROOF)	PQ - Pre-qualified
									32 - ELECTRICAL	3222 - LIGHTINGS & FITTINGS	322208 - LIGHT FITTINGS - (SAFE AREA)	PQ - Pre-qualified

شركة البترول الوطنية الكويتية

إحدى شركات مؤسسة البترول الكويتية
A Subsidiary of Kuwait Petroleum Corporation

KNPC



VENDORS & CONTRACTORS EVALUATION COMMITTEE

M/S. DONGGUAN PAN AMERICAN ELECTRONICS CO. LTD.,
NO.31, BEIWANG AVE, ZHONGTANG TOWN,
DONGGUAN CITY, GUANGDONG,
CHINA

DATE: 29th August 2021
REF: COM-EC&PQ-21-0968
FILE NO: V 5581

SUBJECT: VENDOR APPROVAL LETTER

GENTLEMEN,

REFERENCE TO YOUR PQ APPLICATION (RFI#9645) SUBMITTED TO KNPC ON 01/10/2020, YOUR COMPANY IS APPROVED AS A VENDOR EFFECTIVE 29/08/2021 FOR THE SUPPLY OF THE FOLLOWING PRODUCT(S) FOR K.N.P.C. REFINERIES:

PRODUCT DESCRIPTION

74 20 FIXTURES, INDUSTRIAL (EXP. PROOF)

THE COMPANY (VENDOR) CODE ALLOCATED TO YOUR COMPANY IS **1009031**.

PLEASE ENSURE TO QUOTE THIS CODE AND ABOVE FILE NO. ON ALL YOUR FUTURE CORRESPONDENCE.



VERY TRULY YOURS,

BANDAR M. AL-QAHTANI
CHAIRMAN V & CEC

MH
Handwritten initials
MH/HAA/SHH/sa

NOTE: APPROVAL VALIDITY IS UPTO 28th AUGUST 2026.

PLEASE REFER OVERLEAF FOR INSTRUCTIONS

Instructions to the Vendor

This approval letter is issued subject to the following:

1. KNPC reserve the rights to remove vendor from the approved vendors list without notification, if failed to renew the registration before the expiry date of this approval letter or due to poor performance.
2. Vendor is responsible to update KNPC with any information related to vendor such as contact details, change of local agent, amalgamation of companies, relocation of manufacturing facility.
3. KNPC reserve the rights to remove the local agent relationship without notification, if failed to submit renewed local agency certificate before the expiry date. Unlimited period local agency certificate will not be accepted.
4. Vendor can supply materials to KNPC through the third parties deal with KNPC such as EPC Contractors.
5. Vendor is committed to participate in KNPC tenders/ inquires, if invited. Failing to participate, KNPC reserve the rights to remove any vendor from the approved vendor list without notification.
6. KNPC reserve the rights to shortlist the vendors based on KNPC's interest without any obligation.

VENDOR EVALUATION COMMITTEE (VEC)

To: M/s. DongGuan Pan American Electronics
Co., Ltd., China.
Fax No. 00971 45531301

Date : 30th May 2022

Ref. No.: VEC/PQAN/20082316/031/2022/0466

Vendor Code: 40736

From: M/s. Kuwait Oil Company (K.S.C)
Ahmadi, Kuwait
Fax No. +965 2387 7833

Subject: Approval Notification- Pre-Qualification of Vendor (Manufacturer)

Ref.: Pre-Qualification Application – PQ# 20082316 dated 23rd August 2020

Dear Sir/Madam,

We are pleased to inform you that your application for pre-qualification for KOC's List of Approved Manufacturers has been **approved** for the product category / subcategory and manufacturing facility mentioned hereunder:

Product Category : 3.26 – Light Fittings (Conventional / LED)

Sub Category : Hazardous Area (LED Type only)

Facility Name : M/s. DongGuan Pan American Electronics Co., Ltd.,

Facility Address : No. 175, Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China.

Approval Validity : up to 29th May 2027

Please ensure to quote the vendor code in all your future correspondence.

For Kuwait Oil Company

Abdul Azeez Redha Hussain

Team Leader - Supplier Relationship Management
(Chairman-VEC)

cc: M/s. Dhufar Trading & Contracting Co., Kuwait; Fax No.: 2245 0310

REFER TO OVERLEAF FOR INSTRUCTIONS

Instructions to the Vendor (Manufacturer)

This notification of approval is issued subject to the following, failing which the approval is liable for cancellation at any time at the discretion of Kuwait Oil Company ("KOC").

1. KOC reserves the rights to remove the vendor from the approved vendors list(s), without notification, if the vendor fails to renew the registration/approval before the expiry date of this approval or due to poor performance of the manufacturer.
2. Vendor shall submit its application for re-qualification *at least three (3) months* prior to the expiry date of the current approval. Vendor may obtain the prescribed updated *Application Form for Re-Qualification* from KOC.
3. Vendor is responsible to update KOC with any information related to the vendor, such as contact details, change of local agent, name change, mergers, acquisitions, relocation of manufacturing facility, and discontinuation of production of any approved category / sub-category product.
4. KOC reserves the right to remove the local agent and halt all communication with the local agent, if the Vendor fails to submit a valid local Agency certificate issued from the Ministry of Commerce and Industry, Kuwait.
5. Vendor shall update KOC regularly with the latest product catalogue / information.
6. Vendor shall furnish budgetary quotations as and when requested by, or on behalf of, KOC.
7. Vendor shall furnish audited financial details promptly when requested by KOC.
8. Vendor shall hold all valid mandatory certifications at all times.

Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

DONGGUAN PAN AMERICAN ELECTRONICS CO., LTD.

No. 175, Beiwang Road

Zhongtang Town

Dongguan City, Guangdong Province

People's Republic of China

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

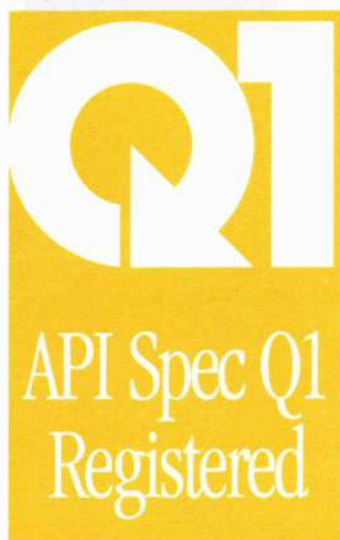
API Specification Q1

The scope of this registration and the approved quality management system applies to the:

Design, Manufacture, Sales and Service of LED Explosion Proof Lights

API approves the organization's justification for excluding:

Validation of Processes



Effective Date: AUGUST 12, 2021
Expiration Date: AUGUST 12, 2024
Registered Since: AUGUST 12, 2021

A handwritten signature in black ink, appearing to read 'Norma C. P. Sullivan'.

Vice President of Global Industry Services

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of API Spec Q1, *Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry*, and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. This certificate has been issued from API offices located at 200 Massachusetts Avenue, NW Suite 1100, Washington, DC 20001-5571, U.S.A. It is the property of API, and must be returned upon request. **To verify the authenticity of this certificate, go to www.api.org/compositelist.**

Pan American Approval Vendor List Reference

S/N	Company Name	Country	Company Logo
Oil Company			
1	KOC/Kuwait Oil Company	Kuwait	 <p style="font-size: small; text-align: center;">شركة نفط الكويت Kuwait Oil Company إحدى شركات مؤسسة البترول الكويتية A Subsidiary of Kuwait Petroleum Corporation</p>
2	ADNOC/Abu Dhabi National Oil Company	UAE	 <p style="text-align: center;">أدنوك ADNOC</p>
3	KNPC/Kuwait National Petroleum Company	Kuwait	 <p style="text-align: center;">البتروال الوطنية KNPC</p>
4	Sabic	Suadi Arabia	 <p style="text-align: center;">سابك SABIC</p>

EPC Contractor

1	Petrofac	England	Petrofac 
2	TARGET ENGINEERING	Middle East	
3	KBR	Middle East	
4	SNC LAVALIN	Middle East	
5	NPCC	Middle East	
6	Worley	Middle East	
7	Consolidated Contractors Company	Middle East	

认证证书

标准 **ISO 9001:2015**

证书登记号码 **01 100 2132355**

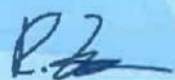
证书持有者: **东莞泛美光电有限公司**
统一社会信用代码: 914419003382462869
注册地址: 中国广东省东莞市中堂镇进园路 88 号中堂天安数码城 6 栋
邮编: 523227
经营地址: 中国广东省东莞市中堂镇进园路 88 号中堂天安数码城 6 栋, 3 栋 103 室, 3 栋 8 层、9 层、10 层、11 层
邮编: 523227

认证范围: 普通照明 LED 灯具、特种灯具 (包括球场灯、植物灯)、防爆灯具和防爆电器的研发、生产和销售

证明完成了审核并满足了 ISO 9001:2015 标准的要求。

有效期: 证书有效期从 2023-06-30 至 2024-10-28。
此证书须经过符合要求的监督审核保持有效。
初次发证始于 2021 年
本证书信息可在国家认证认可监督管理委员会官方网站上查询
<http://www.cnca.gov.cn>

2023-06-30


TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

授权发证办公室: 莱茵检测认证服务 (中国) 有限公司, 北京市北京经济技术开发区荣华南路 15 号院 4 号楼 3 层 301 室、12 层 1203 室 (北京自贸试验区高端产业片区亦庄组团), 100176

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 2132355**


Certificate Holder: **Dongguan Pan American Electronics Co., Ltd.**
Unified Social Credit Code:914419003382462869
Registration Address: Building 6, Tian 'an Digital City, No.88
Jinyuan Road, Zhongtang Town, Dongguan City, 523227
Guangdong, P.R. China
Operation Address: Building 6, Building 3 Room 103, Building 3
Floor 8/9/10/11, Tian 'an Digital City, No.88 Jinyuan Road,
Zhongtang Town, Dongguan City, 523227 Guangdong, P.R. China

Scope: General illumination LED lamps and lanterns, the special lamps
and lanterns (including the stadium lights, lights), explosion-proof
lamps and explosion-proof electric appliance research and
development, production and sales

Proof has been furnished by means of an audit that the
requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2023-06-30 until 2024-10-28.
It remains valid subject to satisfactory surveillance audits.
First certification 2021
This certificate information can be searched on CNCA official
website <http://www.cnca.gov.cn>

2023-06-30


TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

Authorized responsible office: TÜV Rheinland China Ltd., Room 301, 3F and Room 1203,
12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological
Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free
Trade Zone), 100176, P. R. China

www.tuv.com





Certificate of Registration

ENVIRONMENT MANAGEMENT SYSTEM

Registration No.: 37720E30040ROM

This is to certify that the Environment Management System of:

DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD.

(Unified social credit code: 914419003382462869)

Registered address: No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China. PostCode: 523227

Business address: No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China. PostCode: 523227

Conforming to Environment Management System standard:

GB/T24001-2016/ISO14001:2015

This certificate is valid to the following scope:

Environmental Management Activities Related to Production of Production of LED lamps; production and sales of explosion-proof lamps and special lamps (for export only); sales of second-class medical equipment (medical masks, forehead guns); production of daily-use masks (non-medical) of DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD. located in No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China.

Date of Issue/Reissue: 2022.07.28 --- Certificate Expiry: 2024.07.27

Within the validity period of the certificate, the certified organization shall accept the annual supervision and examination as required, and the certificate of qualification for annual examination indicates that the registration is maintained through supervision. This certificate information may be found on the official website of our company (www.sh-moxi.com), or on the National Certification Accreditation Supervision and Administration Commission (www.cnca.gov.cn).



Issue:



First registration date: 2022.07.28 --- registration deadline: 2024.07.27

SHANGHAI MUSE CERTIFICATION SERVICES CO.,LTD

Tel: 021-59100338 E-mail: moxirenzheng@163.com

Add: Room15,12th Floor,Building26 27,Yunping Avenue,Lane No.1399, Jiading District, Shanghai Post Code: 201801



Certificate of Registration

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

Registration No.: 37721530051R0M

This is to certify that the Occupational Health Safety Management System of:

DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD.

(Unified social credit code: 914419003382462869)

Registered address: No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China. PostCode: 523227

Business address: No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China. PostCode: 523227

Conforming to Occupational Health And Safety Management System standard:

GB/T45001-2020/ISO45001:2018

This certificate is valid to the following scope:

Occupational Health and Safety Management Activities Related to Production of LED lamps; production and sales of explosion-proof lamps and special lamps (for export only); sales of second-class medical equipment (medical masks, forehead guns); production of daily-use masks (non-medical) of DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD.

located in No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523227, P.R. China.

Date of Issue/Reissue: 2022.07.28 --- Certificate Expiry: 2024.07.27

Within the validity period of the certificate, the certified organization shall accept the annual supervision and examination as required, and the certificate of qualification for annual examination indicates that the registration is maintained through supervision. This certificate information may be found on the official website of our company (www.sh-moxi.com), or on the National Certification Accreditation Supervision and Administration Commission (www.cnca.gov.cn).



Issue:



First registration date: 2022.07.28 --- registration deadline: 2024.07.27

SHANGHAI MUSE CERTIFICATION SERVICES CO.,LTD

Tel: 021-59100338 E-mail: musirenzheng@163.com

Add: Room 15, 12th Floor, Building 26 27, Yuyang Avenue, Lane No. 1399, Jiading District, Shanghai Post Code: 201801



CERTIFICATE NUMBER 23-2353591-PDA
EFFECTIVE DATE 08-Feb-2023
EXPIRATION DATE 07-Feb-2028
ABS TECHNICAL OFFICE CN Shanghai ESD

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD

located at

**BUILDING 6,ZHONGTANG TIAN'AN DIGITAL CITY,NO.88 JINYUAN
ROAD,ZHONGTANG TOWN,China**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Lighting Fixture, Explosion Proof

Model LED Explosion Proof Lighting Fixture

This Product Design Assessment (PDA) Certificate remains valid until 07/Feb/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Director of Engineering

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement

DONGGUAN PAN AMERICAN ELECTRONICS CO., LTD

BUILDING 6, ZHONGTANG TIAN 'AN DIGITAL CITY, NO.88 JINYUAN ROAD, ZHONGTANG TOWN

China

Telephone: +86 0769 3830008

Fax:

Email: james@jamesindustry.com

Web: www.jamesindustry.com

Tier: 2 - PDA Issued

Product: Lighting Fixtures, Explosion proof

Model: LED Explosion Proof Light Fixture

Endorsements:

Intended Service:

Marine Application - Hazardous Locations Lighting Fixtures for Installation on Marine & Offshore Vessels.

Description:

This luminaire can be used as spot light, down light, tunnel light, flood light and wall pack for general illumination in hazardous locations.

Rating:

See attached document.

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. NA-01, EX-XXXW-A2YZ, Revision: 0, Pages: 1

Drawing No. NA-02, EX-XXXW-A3YZ, Revision: 0, Pages: 1

Drawing No. NA-03, EX-XXXW-A4YZ, Revision: 0, Pages: 1

Drawing No. NA-04, EX-XXXW-AYZ, Revision: 0, Pages: 1

Drawing No. NA-05, EX-XXXW-B2YZ, Revision: 0, Pages: 1

Drawing No. NA-06, EX-XXXW-B3YZ, Revision: 0, Pages: 1

Drawing No. NA-07, EX-XXXW-B4YZ, Revision: 0, Pages: 1

Drawing No. NA-08, EX-XXXW-BYZ, Revision: 0, Pages: 1

Drawing No. NA-09, EX-XXXW-CPAYZ-000 A1 Assembly drawing DC-02, Revision: 0, Pages: 1

Drawing No. NA-10, EX-XXXW-CPAYZ-000 A1 Assembly drawing-01, Revision: 0, Pages: 1

Drawing No. NA-11, C2YZ-ASM IC Power supply, Revision: 0, Pages: 1

Drawing No. NA-12, C2YZ-ASM IECEX ATEX, Revision: 0, Pages: 1

Drawing No. NA-13, C3YZ-ASM IC Power supply, Revision: 0, Pages: 1

Drawing No. NA-14, C3YZ-ASM IECEX ATEX, Revision: 0, Pages: 1

Drawing No. NA-15, CYZ-ASM IC Power supply, Revision: 0, Pages: 1

Drawing No. NA-16, CYZ-ASM IECEX ATEX, Revision: 0, Pages: 1

Drawing No. NA-17, EX-xxxW DNZ-00 assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-18, EX-XXXW-D2YB-01, Revision: 0, Pages: 1

Drawing No. NA-19, EX-XXXW-EYZ-01-A1-Model, Revision: 0, Pages: 1

Drawing No. NA-20, EX-XXXW-FYZ-00-A1-Model, Revision: 0, Pages: 1

Drawing No. NA-21, EX-XXXW-GYZ-00-A1-Model, Revision: 0, Pages: 1

Drawing No. NA-22, EX-03W ES01-0 L0 ES01 Escape route sign Assembly , Revision: 0, Pages: 1

Drawing No. NA-23, EX-15W ES01-0 L0 Lighting luminaires Emergency lighting luminaires Assembly, Revision: 0, Pages: 1

Drawing No. NA-24, EX-XXXW-FLFYZ-01 FLF-Assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-25, EX-XXXW-FLFYZ-02 FLF-Assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-26, EX-XXXW-FLFYZ-03 FLF-Assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-27, EX-XXXW-FLFYZ-04 FLF-Assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-28, EX-XXXW-FLFYZ-05 FLF-Assembly drawing, Revision: 0, Pages: 1

Drawing No. NA-29, EX-XXXW-STAYZ, Revision: 0, Pages: 1

Drawing No. NA-30, EX-XXXW-STAYZ, Revision: 0, Pages: 1

DONGGUAN PAN AMERICAN ELECTRONICS CO., LTD

BUILDING 6, ZHONGTANG TIAN 'AN DIGITAL CITY, NO.88 JINYUAN ROAD, ZHONGTANG TOWN

China

Telephone: +86 0769 3830008

Fax:

Email: james@jamesindustry.com

Web: www.jamesindustry.com

Tier: 2 - PDA Issued

Drawing No. NA-31, EX-XXXW-STA3YZ, Revision: 0, Pages: 1
Drawing No. NA-32, EX-XXXW-H2YZ-02(ASM), Revision: 0, Pages: 1
Drawing No. NA-33, EX-XXXW-H4YZ-01(ASM), Revision: 0, Pages: 1
Drawing No. NA-34, EX-XXXW-I2YZ-B, Revision: 0, Pages: 1
Drawing No. NA-35, EX-XXXW-I4YZ-A, Revision: 0, Pages: 1
Drawing No. NA-36, EX-XXXW-J2YZ, Revision: 0, Pages: 1
Drawing No. NA-37, EX-XXXW-Q1YZ-000 A1, Revision: 0, Pages: 1
Drawing No. NA-38, EX-XXXW-Q2YZ-000 A1, Revision: 0, Pages: 1
Drawing No. NA-39, EX-xxxW-R2YZ(1)-A1-R2 Assembly, Revision: 0, Pages: 1
Drawing No. NA-40, EX-xxxW-R4YZ(1)-A1-R4 Assembly, Revision: 0, Pages: 1
Drawing No. NA-41, EX-XXXW-Ss1YZ, Revision: 0, Pages: 1
Drawing No. NA-42, EX-XXXW-Ss2YZ, Revision: 0, Pages: 1
Drawing No. NA-01 CERT, IECEX_ETL_20.0002X, Revision: 0, Pages: 1
Drawing No. NA-02 CERT, IECEX_ETL_20.0016X, Revision: 0, Pages: 1
Drawing No. NA-03 CERT, IECEX_PCET_22.0008_000, Revision: 0, Pages: 1
Drawing No. NA-04 CERT, ITS20ATEX05531X, Revision: 0, Pages: 1
Drawing No. NA-05 CERT, ITS20ATEX05550X, Revision: 0, Pages: 1
Drawing No. NA-06 CERT, TPS 22 ATEX 102136 0016 X, Revision: 0, Pages: 1
Drawing No. NA-07 CERT, IECEX_CQM_20.0002_000, Revision: 0, Pages: 1
Drawing No. NA-08 CERT, CML 20ATEX1279X, Revision: 0, Pages: 1
Drawing No. NA-09 CERT, IECEXCML20.0163X, Revision: 0, Pages: 1
Drawing No. NA-10 CERT, IECEX_CQM_21.0029X, Revision: 0, Pages: 1
Drawing No. NA-11 CERT, 105073021DAL-001 ATM_5010591, Revision: 0, Pages: 1
Drawing No. NA-12 CERT, CSANAA 20ATEX2257X EXMV-01, Revision: 0, Pages: 1
Drawing No. NA-13 CERT, IECEX_SIR_20.0048_000, Revision: 0, Pages: 1
Drawing No. NA-14 CERT, IECEX_CQM_21.0016_000 ISSUED, Revision: 0, Pages: 1
Drawing No. NA-15 CERT, E525730, Revision: 0, Pages: 1
Drawing No. NA-16 CERT, ITS20ATEX05565X, Revision: 0, Pages: 1
Drawing No. NA-17 CERT, CSANe 22ATEX1001X Iss 0, Revision: 0, Pages: 1
Drawing No. NA-18 CERT, IECEX_CSAE_22.0002_000, Revision: 0, Pages: 1
Drawing No. NA-19 CERT, IECEX_NEP_19.0024X, Revision: 0, Pages: 1
Drawing No. NA-20 CERT, IECEX_CSAE_21.0013_000, Revision: 0, Pages: 1
Drawing No. NA-21 CERT, IECEX_TPS_21.0046_000, Revision: 0, Pages: 1

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 07/Feb/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2023 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/13.1, 4-8-4/1.5, 4-8-4/27.5
2023 Mobile Offshore Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-1/15, 4-3-3/3.17, 4-3-3/9.3

DONGGUAN PAN AMERICAN ELECTRONICS CO., LTD

BUILDING 6, ZHONGTANG TIAN 'AN DIGITAL CITY, NO.88 JINYUAN ROAD, ZHONGTANG TOWN

China

Telephone: +86 0769 3830008

Fax:

Email: james@jamesindustry.com

Web: www.jamesindustry.com

Tier: 2 - PDA Issued

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA



**Design Assessment (DA) Certification
Attachment for Drawings**

DA Cert. No.: 23-2353591-PDA

DA Certificate No.: 23-2353591-PDA

Entry Date: 08 Feb. 2023

Expire Date: 07 Feb. 2028

(subject to the condition stated on the DA Certificate)

Name of Manufacturer: Dongguan Pan American Electronics Co., Ltd.

Address: Building 6, Zhongtang Tian 'an Digital City, No.88 Jinyuan Road, Zhongtang Town

City: Dongguan City, Guangdong Province

Zip: 523220

Country: China

Telephone: +86-0769-38930008

Email: david dai@venas.com

Contact Person: Mr. Dai

Product: Explosion Proof Lighting Fixtures

Revision History

Rev.	Description for Revision	Certificate No.	Task No.	Date
0	PDA Issued	23-2353591-PDA	T2353591	08 Feb. 2023



Design Assessment (DA) Certification Attachment for Drawings

DA Cert. No.: 23-2353591-PDA

Items	Product name	Model	Wattage	Input voltage	IP Level	Explosion proof marking	ATEX (UL/ETL844) No.	IECEx No.	Ambient
1	LED High Bay Luminaire	EX-XXW A2YZDA(-EM/-D) EX-XXW B2YZDA(-EM/-D)	Max.60W	AC100-277V AC200-480V DC12-48V	IP66	Ex eb mb IIC T5...T6 Gb Ex tb IIIC T80°C...T100°C Db Ex ec IIC T6...T3 Gc Ex tb IIIC T85°C...T100°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	TPS 22 ATEX 102136 0016X Rev.00 TPS 22 ATEX 102136 0013 X Rev. 02 ETL844: 105072853DAL-001	IECEx TPS 22.0028X IECEx PCET 22.0008X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW AYZDA(-EM/-D) EX-XXXW BYZDA(-EM/-D) EX-XXXW B5YZDA(-EM/-D)	Max.100W						
		EX-XXXW A3YZDA(-EM/-D) EX-XXXW B3YZDA(-EM/-D)	Max.200W						
		EX-XXXW A4YZDA(-EM/-D) EX-XXXW B4YZDA(-EM/-D)	Max.400W						
2	LED High Bay	EX-XXXW C2YZD(-EM/-D)	Max.80W	AC100-277V AC200-480V DC12-48V	IP66	Ex db IIB T6...T3 Gb Ex tb IIIC T80°C...T195°C Db Class I Div. 1 Groups C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	CML 20ATEX1279X Issue 0 ETL844: 105073021DAL-001	IECEx CML 20.0163X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW CYZD(-EM/-D)	Max.220W						
		EX-XXXW C3YZD(-EM/-D)	Max.280W						
3	Explosion proof Light	Ex-XXW-H2N***(-EM/-D)	Max.40W	AC100-277V AC200-480V DC12-48V	IP66	Ex ec IIC T6...T3 Gc Ex tb IIIC T80°C...T130°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ETL844: 105072853DAL-001	IECEx CQM 21.0016X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		Ex-XXW-H4N***(-EM/-D)	Max.80W						
4	Model "I" family of LED Luminaires	EX-XXXW I2YZD(-EM/-D)	Max.60W	AC100-277V AC200-480V DC12-48V	IP66	Ex db IIB T4 Gb Ex tb IIIC T63.5°C Db Class I Div. 1 Groups C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ITS20ATEX05565X Issue 0 ETL844: 105073021DAL-001	IECEx ETL 20.0017X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW I4YZD(-EM/-D)	Max.120W						
5	LED High Bay(Series O) Luminaire	Ex-XXXW-OYZDAM	Max.40W	AC100-277V AC200-480V DC12-48V	IP66	Ex eb mb IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T130°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	CSAe 22ATEX1001X Issue 0	IECEx CSAE 22.0002X	-40°C to +40°C -40°C to +55°C -40°C to +65°C

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Design Assessment (DA) Certification Attachment for Drawings

DA Cert. No.: 23-2353591-PDA

6	LED Luminaires	EX- * W Q1 ** D * (-EM/-D)	Max.100W	AC100-277V AC200-480V DC12-48V	IP66	Ex nR IIC T6...T4 Gc Ex tb IIIC T80°C ...T130°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	TPS 22 ATEX 102136 0015 X Rev.00	IECEX TPS 21.0041X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX- * W Q2 ** D * (-EM/-D)	Max.200W						
7	Explosion proof Linear Light	EX-**W R2YZD (-EM/-D)	Max.40W	AC100-277V AC200-480V DC12-48V	IP66	Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP66 Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	CSANe 21ATEX1172X ETL844: 105072853DAL-001	IECEX CSAE 21.0013X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-**W R4YZD (-EM/-D)	Max.60W						
		EX-**W RL2YZD (-EM/-D)	Max.40W						
		EX-**W RL4YZD (-EM/-D)	Max.60W						
		EX-**W RL5YZD (-EM/-D)	Max.80W						
		EX-**W RK2YZD (-EM/-D)	Max.40W						
		EX-**W RK4YZD (-EM/-D)	Max.60W						
EX-**W RK5YZD (-EM/-D)	Max.80W								
8	LED Luminaires	EX- * W S1 N * D * (-EM/-D)	Max.100W	AC100-277V AC200-480V DC12-48V	IP66	Ex db IIC T6...T4 Gb Ex tb IIIC T80°C...T130°C Db Class I Div. 1 Groups B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	CML 22ATEX1290X Iss. 0	IECEX TPS 21.0046X	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX- * W S2 N * D * (-EM/-D)	Max.200W						
9	LED Street Light STA Series	EX-XXXW STA1YZD	Max.250W	AC100-277V AC200-480V DC12-48V	IP66	Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III Class I Zone 2 Group IIC Class II Zone 21 Group IIIC	ETL844: 105072853DAL-001 ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW STA2YZD	Max.200W						
		EX-XXXW STA3YZD	Max.150W						
10	LED Street Light STA Series	EX-XXXW STA4AYZD(-EM/-D)	Max.100W	AC100-277V AC200-480V DC12-48V	IP66	II 3 G Ex eb IIC T6...T4 Gc II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III II 2 G Ex eb mb IIC T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 1 Groups B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class II	ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW STA4BYZD(-EM/-D)	Max.150W						
		EX-XXXW STA5YZD(-EM/-D)	Max.240W						
		EX-XXXW STA6YZD(-EM/-D)	Max.120W						
		EX-XXXW STA7YZD(-EM/-D)	Max.480W						
		EX-XXXW STA8YZD(-EM/-D)	Max.240W						
		EX-XXXW STA9YZD(-EM/-D)	Max.240W						
EX-XXXW STA10YZD(-EM/-D)	Max.240W								

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Design Assessment (DA) Certification Attachment for Drawings

DA Cert. No.: 23-2353591-PDA

11	Linear Light FLC Series	EX-***W FLC2YZD	Max.60W	AC100-277V AC200-480V DC12-48V	IP66	II 3 G Ex eb IIC T6...T4 Gc II 2 D Ex tb IIIC T80°C...T120°C Db II 2 G Ex eb mb IIC T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-***W FLC4YZD	Max.120W						
		EX-***W FLC5YZD	Max.120W						
12	LED Flood Light FLA Series	EX-***W FLA1YZD(-EM/-D)	Max.100W	AC100-277V AC200-480V DC12-48V	IP66	II 2 G Ex db IIB+H2 T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 1 Groups B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-***W FLA2YZD(-EM/-D)	Max.200W						
		EX-***W FLA3YZD(-EM/-D)	Max.500W						
		EX-***W FLA1eYZD(-EM/-D)	Max.100W						
		EX-***W FLA2eYZD(-EM/-D)	Max.200W						
13	ES01 Explosion proof Luminaires	EX-**W ES01-**	Max.15W	AC100-277V AC200-480V DC12-36V	IP66	Ex db eb mb q IIC T5/T6 Gb Ex tb IIIC 80°C/95°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	/	IECEX CQM 21.0029X	-20°C ~ +60°C
		Ex-XXW-ES02 YZDA	Max.20W						
14	ES02 Explosion- Proof Light	Ex-XXW-ES02 YZDA	Max.20W	AC100-277V AC200-480V DC12-36V	IP66	Ex db IIB+H2 T6 Gb Ex tb IIIC T80°C Db Class I Div. 1 Groups B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	/	IECEX CML 21.0116X	-20°C ~ +60°C
15	Exit Sign Light V Series	EX-*W VNRD180	Max.5W	AC100-277V AC200-480V DC12-36V	IP66/IP67	Ex ib mb IIC T4 Gb Ex tb IIIC T135°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	UL: E525730	J19-001-RZ- CJ-03	-20°C ~ +60°C
		EX-*W VNGD180							
16	Exit Sign Light J Series	EX-*W JNGD180	Max.5W	AC100-277V AC200-480V DC12-36V	IP66/IP67	Class I Div. 1 Groups B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	UL: E525730	/	-20°C ~ +60°C
		EX-*W JNRD180							

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**Design Assessment (DA) Certification
Attachment for Drawings**

DA Cert. No.: 23-2353591-PDA

17	G Series Explosion proof Light	EX-XXW GYZDA	Max.50W	AC100-277V AC200-480V DC12-36V	IP66/IP67	Ex db IIC T6...T4 Gb Ex tb IIIC T80°C...T130°C Db Class I Div. 1 Groups C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ETL844: 105073021DAL-001 ECM 1N190613.EIDN24	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
18	D Series Explosion proof Light	EX-XXW DYZD(-EM/-D)	Max.240W	AC100-277V AC200-480V DC12-48V	IP66	II 2 G Ex db eb IIC T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db IP66 Class I Div. 1 Groups C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ETL844: 105073021DAL-001 ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXW D2YZD(-EM/-D)	Max.100W						
19	FLF sereis Explosion proof Light	EX-XXW FLF1YZD(-EM/-D)	Max.30W	AC100-277V AC200-480V DC12-48V	IP66	II 3 G Ex db eb IIC T6...T4 Gc II 3 D Ex tb IIIC T80°C...T120°C Dc Class I, Div. 2, Groups A, B, C, D Class I, Zone 2, Group IIC	ETL844: 105072853DAL-001	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXW FLF2YZD(-EM/-D)	Max.40W						
		EX-XXW FLF3YZD(-EM/-D)	Max.60W						
		EX-XXW FLF4YZD(-EM/-D)	Max.80W						
		EX-XXXW FLF5YZD(-EM/-D)	Max.100W						
20	FLD sereis Explosion proof Light	EX-XXXW FLD2×1YZD(-EM/-D)	Max.60W	AC120-277V AC200-480V DC12-48V	IP66	II 3 G Ex db eb IIC T6...T4 Gc II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III II 2 G Ex db eb mb IIC T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW FLD3×1YZD(-EM/-D)	Max.80W						
		EX-XXXW FLD4×1YZD(-EM/-D)	Max.120W						
		EX-XXXW FLD4×2YZD(-EM/-D)	Max.120W						



Design Assessment (DA) Certification Attachment for Drawings

DA Cert. No.: 23-2353591-PDA

21	FLB sereis Epllosion proof Light	EX-XXW FLB2YZD(-EM/-D)	Max.60W	AC120-277V AC200-480V DC12-48V	IP66/IP67	II 3 G Ex db eb IIC T6...T4 Gc II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III II 2 G Ex db eb mb IIC T6...T4 Gb II 2 D Ex tb IIIC T80°C...T120°C Db Class I Div. 1 Groups A, B, C, D Class I Div. 2 Groups A, B, C, D Class II Div. 1 Groups E, F, G Class II Div. 2 Groups F, G Class III	ECM22 ATEX-B QO66	/	-40°C to +40°C -40°C to +55°C -40°C to +65°C
		EX-XXXW FLB2×2YZD(-EM/-D)	Max.120W						
		EX-XXXW FLB2×3YZD(-EM/-D)	Max.180W						
		EX-XXW FLB3YZD(-EM/-D)	Max.60W						
		EX-XXXW FLB3×2YZD(-EM/-D)	Max.120W						
		EX-XXXW FLB3×3YZD(-EM/-D)	Max.180W						
		EX-XXXW FLB4YZD(-EM/-D)	Max.120W						
		EX-XXXW FLB4×2YZD(-EM/-D)	Max.240W						
EX-XXXW FLB4×3YZD(-EM/-D)	Max.360W								

Remark: 1. XXXW denotes wattages; 2. "Y" can be N denotes Non-dimmable, D denotes Dimmable; 3. "Z" can be 27 to 70 denotes 2700K to 7000K, and each 100K gradually increase, max 7000K; 4. D can be D15, D20...D180, which are denote 15 degrees, 20 degrees...180 degrees; 5. A for optional, it can be C denotes spherical glass and blank denotes plate glass. 6. (-EM/-D) for optional, -EM for with emergency funtion; -D for DC input.

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This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

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Applicant: EPC PRODUCT LLC	Manufacturer: DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD
Address: 1039 S Baldwin Ave Arcadia, CA 91007	Address: No.175 BeiWang Rd., Zhongtang Town, DongGuan City, GuangDong Province 523227
Country: USA	Country: China
Party Authorized To Apply Mark: Same as Manufacturer	
Report Issuing Office: Intertek Testing Services NA, Inc., Plano, TX	
Control Number: <u>5010591</u>	Authorized by:  for L. Matthew Snyder, Certification Manager



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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s):	Luminaries for Use in Hazardous (Classified) Locations>Expires on: 22Feb2023< [UL 844:2012 Ed.13+R:06Oct2017] Electric Luminaires For Use In Hazardous Locations (R2014) [CSA C22.2#137:1981 Ed.1 +G1]
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Product:

LED High Bay Luminaires for use in:

Class I Div 2 Groups A, B, C, D
Class II Div 1 Groups E, F, G
Class II Div 2 Groups F, G
Class III
Class I Zone 2 Group IIC
Class II Zone 21 Group IIIC

A series:

Temperature code T3:

Ambient temperature: -40°C to 40°C - Models A, 40-120W.
Ambient temperature: -40°C to 50°C - Models A, 40-100W, Class I Div 2 Group A,B,C,D
Ambient temperature: -40°C to 40°C - Models A2, 20-40W.
Ambient temperature: -40°C to 40°C- Models A3 - 20-200W
Ambient temperature: -40°C to 55°C- Models A4 - 20-300W
Ambient temperature: -40°C to 40°C- Models A4 - 20-400W

B series:

Temperature code T3:

Ambient temperature: -40°C to 50°C - Models B and B2, 20W-80W.
Ambient temperature: -40°C to 40°C - Models B3, 20-200W.
Ambient temperature: -40°C to 55°C- Models B4 - 20-300W
Ambient temperature: -40°C to 40°C- Models B4 - 20-400W

H series:

Temperature code T3

Ambient temperature: -40°C to 60°C

STA series:

Ambient Temperature Range and T-code:

STA1: -40°C to +55°C (10-200W), T3

STA2: -40°C to +55°C (10-150W), T4

STA3: -40°C to +55°C (10-150W), T4

FLF series for use in:

Class I, Division 2, Groups A, B, C and D,

Class I, Zone 2, Group IIC

Ambient Temperature Range and T-code:

FLF1:

-40°C to +40°C (Max 30W), T5

-40°C to +55°C (Max 30W), T4

FLF2:

-40°C to +40°C (Max 40W), T5

-40°C to +55°C (Max 40W), T4

FLF3:

-40°C to +40°C (Max 60W), T5

-40°C to +55°C (Max 60W), T4

FLF4:

-40°C to +40°C (Max 80W), T5

-40°C to +55°C (Max 80W), T4

FLF5

-40°C to +40°C (Max 100W), T5

-40°C to +55°C (Max 100W), T4

R Series for use in:

Class I, Division 2, Groups A, B, C and D

Class I, Zone 2 Group IIC

-40°C < Tamb < 50°C, T5/T6

Brand Name: EPC

EX- followed by 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390 or 400; followed by W; followed by A, A2, A3 or A4; followed by N or D; followed by 27 to 70; may be followed by D; may be followed by 15 to 360; may be followed by C; may be followed by -1.

EX- followed by 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390 or 400; followed by W; followed by B, B2, B3 or B4; followed by N or D; followed by 27 to 70; may be followed by D; may be followed by 15 to 360; may be followed by C; may be followed by -1.

Models:

EX- followed by 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, or 80; followed by W; followed by H2 or H4; followed by N or D; followed by 27 to 70; may be followed by D; may be followed by 15 to 360; may be followed by C; may be followed by -1.

EX; followed by -yyy; followed by W; followed by SAT1, STA2 or STA3; followed by Y or N or D; followed by Z; followed by D; may be followed by -1.

Ex followed by -; followed by yyy; followed by W; followed by FLF; followed by up to three numbers.; followed by N or D; followed by Z; followed by D; followed by up to three numbers.

Ex followed by -; followed by 10 to 60; followed by W; followed by R2 or R4; followed by N; followed by 27, 40, 50; followed by D120; followed by C, R or P.

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

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Applicant: EPC PRODUCT LLC	Manufacturer: DONGGUAN PAN AMERICAN ELECTRONICS CO.,LTD
Address: 1039 S Baldwin Ave Arcadia, CA 91007	Address: No.175 BeiWang Rd., Zhongtang Town, DongGuan City, GuangDong Province 523227
Country: USA	Country: China
Party Authorized To Apply Mark: Same as Manufacturer	
Report Issuing Office: Intertek Testing Services NA, Inc., Plano, TX	
Control Number: <u>5010591</u>	Authorized by:  for L. Matthew Snyder, Certification Manager



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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s): Luminaries for Use in Hazardous (Classified) Locations>Expires on: 22Feb2023< [UL 844:2012 Ed.13+R:06Oct2017] Electric Luminaires For Use In Hazardous Locations (R2014) [CSA C22.2#137:1981 Ed.1 +G1]

LED High Bay Luminaires

For use in:

Class I, Division 1, Groups C and D
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 Groups E, F and G
Class II, Division 2 Group F and G
Class III
Class I Zone 1 Group IIB
Class II Zone 21 Group IIIC

Product:

C Series:

Ambient temperature range -40°C to 60°C, T4

D Series:

Ambient temperature range -40°C to 55°C (20W-150W) and -40°C to 45°C (20W-220W), T4

E Series:

Ambient temperature range -40°C to 65°C,

F Series:

Ambient temperature range -40°C to 65°C, T4

units over 100W have a T3 temperature code

G Series:

Ambient temperature range -40°C to 65°C, T4

I Series:

Ambient Temperature Range: -40°C to +60°C (20W-80W), T4

-40°C to +40°C (90W-120W), T4

Brand Name: EPC

Models:

EX- followed by 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210 or 220; followed by W; followed by D or D2; followed by N or D; followed by 27 to 70; followed by D; followed by 15 to 360; may be followed by -1.

EX- followed by 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270 or 280 ; followed by W; followed by C, C2 or C3; followed by N or D; followed by 27 to 70; followed by D; followed by 15 to 360; may be followed by -1.

EX- followed by 40, 50, 60, 65, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210 or 220; followed by W; followed by E; followed by N or D; followed by 27 to 70; followed by D; followed by 15 to 360; may be followed by -1.

EX- followed by 40, 50, 60, 70, 80, 90, 100; followed by W; followed by F; followed by N or D; followed by 27 to 70; followed by D; followed by 15 to 360; may be followed by -1.

EX- followed by 10, 15, 20, 25, 30, 35, 40, 45, or 50; followed by W; followed by G; followed by N or D; followed by 27 to 70; followed by D; followed by 15 to 360; may be followed by -1.

EX followed by 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, or 120; followed by W; followed by I; followed by 2 or 4; followed by D or N; followed by 27 to 70; followed by D15 to D360; may be followed by -1.



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

Certificate No.: **IECEX ETL 20.0002X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-04-21

Applicant: **Dongguan Pan American Electronics Co., Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China

Equipment: **Ex-***W A****D*****

Optional accessory:

Type of Protection: **Increased Safety 'ec', dust protected 'tb'**

Marking: Ex ec IIC T3C Gc
Ex tb IIIC Txx Db
IP66
-40°C ≤ Ta ≤ +40°C
IECEX ETL 20.0002

Approved for issue on behalf of the IECEx
Certification Body:

Todd L. Relyea

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

Intertek
3933 US Route 11 South
Cortland NY 13045-2995
United States of America



IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 20.0002X**

Page 2 of 3

Date of issue: 2020-04-21

Issue No: 0

Manufacturer: **Dongguan Pan American Electronic Co.,Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China

Manufacturing
locations:

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 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[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:

[US/ETL/ExTR20.0011/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/01](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 20.0002X**

Page 3 of 3

Date of issue: 2020-04-21

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

See Annex 1 of this certificate for full model description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Control of Environmental humidity to minimize generation of static electricity
- Touch with insulating object
- Means to continuously drain off electrostatic charges

Annex:

[IECEx ETL 20.0002X - Annex for IECEx Certificate of Conformity_1.pdf](#)



Annex to IECEx Certificate of Conformity

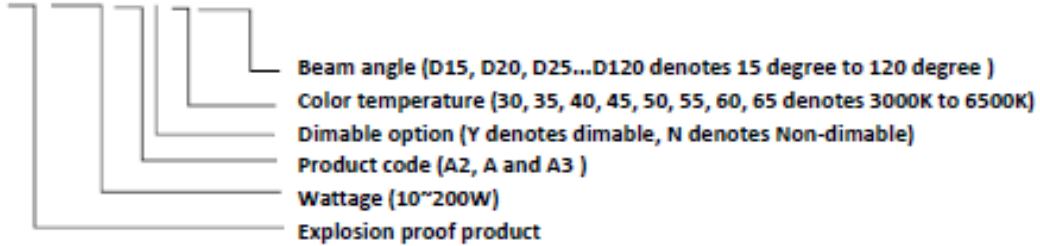
Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

General product information: This fixture is LED Luminaires; Rating is 100-277VAC; 50/60Hz. Maximum input power is 200W.

Breakdown of model numbers:

Model description

Ex-***W A3N50D120





Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series A) High Bay Product Drawings	EX-yyyW AXYZD	A1	Dec.2019
Detail list	Ex-yyyW AXYZD	A1	2019-12-19
Drawings Contents	Ex-yyyW AXYZD	A1	2019-12-19
Explosion Proof Light (Series A) High Bay Assembly	EX-XXXW-AYZ	A1	2019-12-19
Cabinet Bottom Lighting	EX-XXXW-AYZ-001	A1	2019-12-19
Cabinet Power Bottom	EX-XXXW-AYZ-002	A1	2019-12-19
Cabinet Top Lighting	EX-XXXW-AYZ-003	A1	2019-12-19
Cabinet Top Power Box	EX-XXXW-AYZ-004	A1	2019-12-19
Tempered Glass	EX-XXXW-AYZ-005	A1	2019-12-19
Cantilever Support	EX-XXXW-AYZ-006	A1	2019-12-19
Cantilever Support Stand	EX-XXXW-AYZ-007	A1	2019-12-19
Waterproof Ring D	EX-XXXW-AYZ-008	A1	2019-12-19
Waterproof Ring A	EX-XXXW-AYZ-009	A1	2019-12-19
Waterproof Ring B	EX-XXXW-AYZ-010	A1	2019-12-19
Waterproof Ring C	EX-XXXW-AYZ-011	A1	2019-12-19
Nameplate	EX-XXXW-AYZ-012	A3	2019.10.7
press cable plate	EX-XXXW-BYZ-009	A1	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Earthing name plate	EX-XXXW-AYZ-013	A	2019-12-19
Earthing	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Led Aluminium Substrate	EX-XXXW-AYZ-016	A1	2019-12-19
Sch of Series A	EX-YYYX-AXYX-SCH01	A	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-12-19



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A Drawings

Title:	Drawing No.:	Rev. Level:	Date:
Hard Net Cover	EX-XXXW-AYZ-018	A1	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2019-06-21



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Sch of series A2	EX-YYYY-A2XYX-SCH01	A	2019-5-30
Explosion proof light (Series A2) High Bay Product Drawings	EX-yyyW A2XYZD	A1	Dec.2019
Detail list	Ex-yyyW A2XYZD	A1	2019-12-19
Drawings Contents	Ex-yyyW A2XYZD	A1	2019-12-19
Explosion Proof Light (Series A2) High Bay Assembly	EX-XXXW-A2YZ	A1	2019-12-19
A2 Cabinet Top Lighting	EX-XXXW-A2YZ-001	A	2019-6-20
A2 Cabinet Bottom Lighting	EX-XXXW-A2YZ-002	A	2019-6-20
A2 Cabinet Top Power Box	EX-XXXW-A2YZ-003	A	2019-6-20
A2 Cabinet Bottom Power Box	EX-XXXW-A2YZ-004	A	2019-6-20
A2 Cantilever Support	EX-XXXW-A2YZ-005	A	2019-6-20
A2 Tempered Glass	EX-XXXW-A2YZ-006	A	2019-6-20
Waterproof Ring A	EX-XXXW-A2YZ--007	A	2019-6-20
Waterproof Ring B	EX-XXXW-A2YZ-008	A	2019-6-20
Waterproof Ring C	EX-XXXW-A2YZ-009	A	2019-6-20
Led Aluminium Substrate	EX-XXXW-A2YZ-010	A	2019-6-20
Cable Gland	EX-XXXW-A2YZ-011	A1	2019-6-06
Nameplate	EX-XXXW-A2YZ-018	A1	2019-10-07
Flexible cable	EX-XXXW-AYZ-017	A	2019-6-20
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-6-20
Earthing/Ground	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-6-20
Lens	EX-TYJ-024	A	2019-6-20



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Flexible Metal Conduit	FBD-TYJ-009	A	2019-6-20
Mounting Adapter	EX-XXXW-FYZ-011	A	2019-6-20
HARD NET COVER	EX-XXXW-A2YZ-019	A1	2018-8-06
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series A3) High Bay Product Drawings	EX-yyyW A3XYZD	A1	Dec.2019
Detail list	Ex-yyyW A3XYZD	A1	2019-6-18
Drawings Contents	Ex-yyyW A3XYZD	A1	2019-6-18
Explosion Proof Light (Series A3) High Bay Assembly	EX-XXXW-A3YZ	A1	2019-12-19
A3 Cabinet Top Lighting	EX-XXXW-A3YZ-001	A1	2019-12-19
A3 Cabinet Bottom Lighting	EX-XXXW-A3YZ-002	A1	2019-12-19
A3 Cabinet Top Power Box	EX-XXXW-A3YZ-003	A1	2019-12-19
A3 Cabinet Bottom Power Box	EX-XXXW-A3YZ-004	A1	2019-12-19
A3 Cantilever Support	EX-XXXW-A3YZ-005	A1	2019-12-19
A3 Cantilever Support Stand	EX-XXXW-A3YZ-006	A1	2019-12-19
A3 Tempered Glass	EX-XXXW-A3YZ-007	A1	2019-12-19
Waterproof Ring A	EX-XXXW-A3YZ--008	A1	2019-12-19
Waterproof Ring B	EX-XXXW-A2YZ-008	A	2019-6-20
Waterproof Ring C	EX-XXXW-A3YZ-009	A1	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Nameplate	EX-XXXW-A3YZ-018	A1	2019-10-7
Earthing/ground	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Led Aluminium Substrate	EX-XXXW-A3YZ-066	A1	2019-12-19
EX-YYYW-A3XYX-SCH01	Sch of Series A3	A1	2019-12-19
Lens	EX-TYJ-024	A	2019-6-20
Flexible Metal Conduit	FBD-TYJ-009	A	2019-6-20
Mounting Adapter	EX-XXXW-FYZ-011	A	2019-6-20



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Technical Documents Model A3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Cable Gland	EX-XXXW-A2YZ-020	A1	2019-06-21
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-12-19

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



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0002X	Issue No. 0
Annex No. 1		

Required Manufacturer Routine Testing		
Test	Title/Description of Test	Standard and Clause
1	Dielectric Test: (1,000 + 2U) V r.m.s. (+5%/-0) for 60s without breakdown or at 1.2 times the test voltage for 100ms. Or DC dielectric voltage 1.7 X (1,000 + 2U) V r.m.s. (+5%/-0) for 60s without breakdown	IEC 60079-7: 2017 Edition 7.1, Clause 7.1



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

Certificate No.: **IECEx ETL 20.0016X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2020-04-23
Applicant: **Dongguan Pan American Electronic Co.,Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China
Equipment: **Model B LED Luminary family**
Optional accessory:
Type of Protection: **Increased Safety 'ec', protection from dust by enclosure 'tb'.**
Marking: Ex ec IIC T3 Gc
Ex tb IIIC T85C Db IP66
-40 to +40C

Approved for issue on behalf of the IECEx
Certification Body:

Todd L. Relyea

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

Intertek
3933 US Route 11 South
Cortland NY 13045-2995
United States of America

intertek



IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 20.0016X**

Page 2 of 3

Date of issue: 2020-04-23

Issue No: 0

Manufacturer: **Dongguan Pan American Electronic Co.,Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China

Manufacturing
locations:

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 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[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:

[US/ETL/ExTR20.0021/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/01](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx ETL 20.0016X**

Page 3 of 3

Date of issue: 2020-04-23

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Model family B. See Annex 1 for full model information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Control of environmental humidity to minimize the generation of static electricity,
- Touch with an insulating object,
- Means to continuously drain off electrostatic charges

Annex:

[IECEx ETL 20.0016X - Annex for IECEx Certificate of Conformity.pdf](#)



Annex to IECEx Certificate of Conformity

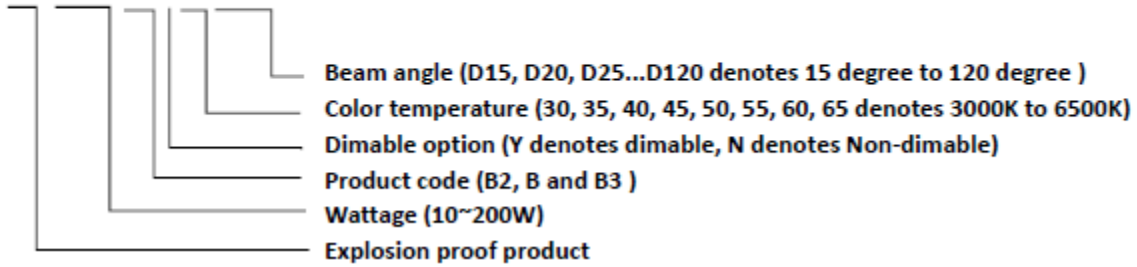
Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

General product information: The product is a family of LED Luminaires; Rating is 100-277VAC; 50/60Hz. Maximum input power is 200W.

Breakdown of model numbers:

Model description

Ex-***W B3N50D120



Certificate issued by:



Intertek Testing Services, NA.
3933 US Route 11
Cortland, NY 13045
USA

Page 1 of 8

SFT-IECEX-OP-19f (26 October 2018)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEx ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B) High Bay Product Drawings	EX-yyyW BXYZD	A1	Dec 2019
Detail list	EX-XXXW BYZD	A1	2019-5-25
Drawings Contents	EX-XXXW BYZD-1	A1	2019-5-25
Sch of series B	EX-XXXW-BYZ-SCH	A1	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
Earthing Nameplate	EX-XXXW-AYZ-013	A1	2018-8-06
Earthing	EX-XXXW-AYZ-014	A1	2018-8-06
Amphenol connector	EX-XXXW-AYZ-015	A1	2018-8-06
Flexible cable	EX-XXXW-AYZ-017	A1	2018-8-06
LED Corn Light	EX-XXXW-B2YZ-007	A1	2019-12-19
Explosion proof light(Series B) High Bay Assembly	EX-XXXW-BYZ	A1	2019-12-19
Cabinet-top-lighting	EX-XXXW-BYZ-001	A1	2019-12-19
Cabinet-bottom-lighting	EX-XXXW-BYZ-002	A1	2019-12-19
Cabinet-bottom-power-box	EX-XXXW-BYZ-003	A1	2019-12-19
Cabinet-top-power-box	EX-XXXW-BYZ-004	A1	2019-12-19
Gear-plate-A	EX-XXXW-BYZ-005	A1	2019-12-19
Gear-plate-B	EX-XXXW-BYZ-006	A1	2019-12-19
Bracket	EX-XXXW-BYZ-007	A1	2019-12-19
Hardware-net-cover	EX-XXXW-BYZ-008	A1	2019-12-19
Press cable plate	EX-XXXW-BYZ-009	A1	2019-12-19
Plate glass	EX-XXXW-BYZ-010	A1	2019-12-19
Spherical glass	EX-XXXW-BYZ-011	A1	2019-12-19
Waterproof-ring-A	EX-XXXW-BYZ-012	A1	2019-12-19
Waterproof-ring-B	EX-XXXW-BYZ-013	A1	2019-12-19



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B Drawings

Title:	Drawing No.:	Rev. Level:	Date:
Waterproof-ring-C	EX-XXXW-BYZ-014	A1	2019-12-19
Waterproof-ring-D	EX-XXXW-BYZ-015	A1	2019-12-19
CON REFLECTOR-A	EX-XXXW-BYZ-016	A1	2019-12-19
CON REFLECTOR-B	EX-XXXW-BYZ-017	A1	2019-12-19
Nameplate	EX-XXXW-BYZ-018	A1	2019.10.7
PCB	EX-XXXW-BYZ-019	A1	2019-12-19
Hardware guard-A	EX-XXXW-BYZ-025	A1	2019-12-19
Lens	EX-XXXW-BYZ-026	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B2) High Bay Product Drawings	EX-yyyW B2XYZD	A1	Dec.2019
Detail list	EX-XXXW B2YZD	A1	2019-5-25
Drawings Contents	EX-XXXW B2YZD-1	A1	2019-5-25
Assembly Drawing	EX-XXXW-B2YZ	A1	2019-12-19
Cabinet Top Lighting	EX-XXXW-BYZ-001	A1	2019-12-19
B2_Cabinet Bottom Lighting	EX-XXXW-B2YZ-001	A1	2019-12-19
B2_Cabinet power bottom	EX-XXXW-B2YZ-003	A1	2019-12-19
B2 Cabinet power top	EX-XXXW-B2YZ-004	A1	2019-12-19
Gear plate A	EX-XXXW-BYZ-005	A1	2019-12-19
Gear plate B	EX-XXXW-BYZ-006	A1	2019-12-19
Cantilever Support	EX-XXXW-BYZ-007	A1	2019-12-19
Hardware-net-cover	EX-XXXW-BYZ-008	A1	2019-12-19
Spherical glass	EX-XXXW-BYZ-011	A1	2019-12-19
Plate Glass	EX-XXXW-BYZ-010	A1	2019-12-19
Waterproof Ring A	EX-XXXW-BYZ-012	A1	2019-12-19
Waterproof Ring B	EX-XXXW-BYZ-013	A1	2019-12-19
Waterproof Ring C	EX-XXXW-BYZ-014	A1	2019-12-19
Waterproof Ring E(B2)	EX-XXXW-B2YZ-005	A1	2019-12-19
CON reflector A	EX-XXXW-BYZ-016	A1	2019-12-19
CON reflector B	EX-XXXW-BYZ-017	A1	2019-12-19
Name plate	EX-XXXW-B2YZ-006	A1	2019.10.7
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding location name plate	EX-XXXW-AYZ-013	A	2019-12-19
Grounding wire	EX-XXXW-AYZ-014	A	2019-12-19
LED PCB	EX-XXXW-BYZ-019	A1	2019-12-19



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Flexible cable	EX-XXXW-AYZ-017	A1	2019-12-19
Hardware guard-A	EX-XXXW-BYZ-025	A1	2019-12-19
Lens	EX-XXXW-BYZ-026	A1	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
SCH of series B2	EX-XXXW-B2YZ-SCH	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B3) High Bay Product Drawings	EX-yyyW B3XYZD	A1	Dec.2019
Detail list	EX-XXXW-B3YZD	A1	2019-5-30
Drawings Contents	EX-XXXW-B3YZD-1	A1	2019-5-30
B3 Cabinet Top Lighting	EX-XXXW-B3YZ-001	A1	2019-12-19
B3 Cabinet Bottom Lighting	EX-XXXW-B3YZ-002	A1	2019-12-19
B3 Cabinet Bottom power box	EX-XXXW-B3YZ-003	A1	2019-12-19
B3 Cabinet power top box	EX-XXXW-B3YZ-004	A1	2019-12-19
B3 cantilever support	EX-XXXW-B3YZ-005	A1	2019-12-19
B3 cantilever support stand	EX-XXXW-B3YZ-006	A1	2019-12-19
Hardware guard	EX-XXXW-B3YZ-007	A1	2019-12-19
B3 Tempered Glass	EX-XXXW-B3YZ-008	A1	2019-12-19
B3 Spherical Glass	EX-XXXW-B3YZ-009	A1	2019-12-19
B3 waterproof ring_A	EX-XXXW-B3YZ-011	A1	2019-12-19
Waterproof ring_B	EX-XXXW-BYZ-013	A1	2019-12-19
Waterproof ring_C	EX-XXXW-BYZ-014	A1	2019-12-19
B3 Waterproof ring_E	EX-XXXW B3YZ-010	A1	2019-12-19
Nameplate	EX-XXXW-B3YZ-012	A3	2019.10.7
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-12-19
Earthing Wire	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
LED PCB	EX-XXXW-B3YZ-013	A1	2019-12-19
Flexible Cable	EX-XXXW-AYZ-017	A	2019-12-19
Hardware guard_B	EX-XXXW-B3YZ-015	A1	2019-12-19



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Technical Documents Model B3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
CON reflector-A	EX-XXXW-B3YZ-016	A1	2019-12-19
CON reflector-B	EX-XXXW-B3YZ-017	A1	2019-12-19
Cable Gland	EX-XXXW-A2YZ-020	A1	2018-8-16
Sch of series B3	EX-XXXW-B3YZ-SCH	A1	2019-12-19
EX-XXXW-BYZ-026	Lens	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019

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



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ETL 20.0016X	Issue No. 0
Annex No. 1		

Required Manufacturer Routine Testing		
Test	Title/Description of Test	Standard and Clause
1	Dielectric Test: (1,000 + 2U) V r.m.s. (+5%/-0) for 60s without breakdown or at 1.2 times the test voltage for 100ms. Or DC dielectric voltage 1.7 X (1,000 + 2U) V r.m.s. (+5%/-0) for 60s without breakdown	IEC 60079-7: 2017 Edition 7.1, Clause 7.1



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

Certificate No.: **IECEX PCET 22.0008X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-05-26
Applicant: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road, Zhongtang Town, DongGuan City, GuangDong Province 523227, China
Dongguan 523227
China
Equipment: **LED High Bay Luminaire**
Optional accessory:
Type of Protection: **"ec","tb"**
Marking: Ex ec IIC T6...T3 Gc
Ex tb IIIC T85°C...T100°CDb
-40°C≤Ta≤+40°C ; -40°C≤Ta≤+55°C
IP66

Approved for issue on behalf of the IECEx
Certification Body:

Yin Hong

Position:

General manager

Signature:
(for printed version)

Date:
(for printed version)

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 or use of this QR Code.



Certificate issued by:

PCEC (Tianjin) Certification Services Co. Ltd
No 85-1, No. 3 Road, Hongqiao District
Tianjin Post Code 300131
China





IECEX Certificate of Conformity

Certificate No.: **IECEX PCET 22.0008X**

Page 2 of 3

Date of issue: 2022-05-26

Issue No: 0

Manufacturer: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road, Zhongtang Town, DongGuan City, GuangDong Province 523227, China
Dongguan 523227
China

Manufacturing locations: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road, Zhongtang Town, DongGuan City, GuangDong Province 523227, China
Dongguan 523227
China

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 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[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 Reports:

[CN/PCET/ExTR22.0007/00](#)

[US/ETL/ExTR20.0011/00](#)

[US/ETL/ExTR20.0021/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/04](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX PCET 22.0008X**

Page 3 of 3

Date of issue: 2022-05-26

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LED High Bay Luminaire is with type of protection "ec" and "tb". The enclosure is composed of light source compartment and power compartment. Three threaded entry holes with thread forms 3/4NPT, M25×1.5, M20×1.5 or M16×1.5 are provided in the enclosure of power compartment to connect certified cable gland, conduit or blanking element.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Certified cable gland or blanking element should be installed at hole of enclosure. The IP level of cable gland or blanking element should not less than IP66.
2. the warning words "WARNING-POTENTIAL ELECTROSTATIC CHARGING HAZARD" are provided on the nameplate. Method should be taken to avoid the accumulation of electrostatic charge, such like clean the enclosure with damp cloth, control the environmental humidity, effective grounding.

Annex:

[Annex-CoC-22.0008X.pdf](#)

Annex to: IECEx PCET 22.0008X
 Applicant: Dongguan Pan American Electronics Co., LTD
 Equipment: LED High Bay Luminaire



The LED High Bay Luminaire is with type of protection “ec” and “tb”. The enclosure is composed of light source compartment and power compartment. Three threaded entry holes with thread forms 3/4NPT, M25×1.5, M20×1.5 or M16×1.5 are provided in the enclosure of power compartment to connect certified cable gland, conduit or blanking element.

Nomenclature: Ex-**W**N**D**

1 2 3 4

1-Wattage(W): 10~400.

2-Product code: A, A2, A3, A4, B, B2, B3, B4.

3-Colour temperature: the number 30 to 65 means 3000K to 6500K.

4-Beam angle(degree): 15, 20, 25...120.

Product code	Wattage	Ambient temperature	Temperature class(gas/dust)
A, A2, A3	Max. 200W	-40°C≤Ta≤+55°C	T3/T100°C
B, B2, B3	Max. 200W	-40°C≤Ta≤+55°C	T3/T100°C
A4	300W	-40°C≤Ta≤+55°C	T3/T100°C
	120W	-40°C≤Ta≤+40°C	T4/T85°C
	60W	-40°C≤Ta≤+40°C	T5/T85°C
	40W	-40°C≤Ta≤+40°C	T6/T85°C
B4	400W	-40°C≤Ta≤+55°C	T3/T100°C
	120W	-40°C≤Ta≤+40°C	T4/T85°C
	60W	-40°C≤Ta≤+40°C	T5/T85°C
	40W	-40°C≤Ta≤+40°C	T6/T85°C

Dielectric strength test should be carried out according to clause 7.1 of IEC 60079-7.

TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- EU-Type Examination Certificate Number:** ITS20ATEX05531X **Issue 0**
- Product:** LED High Bay Luminaire Models A, A2, A3
- Manufacturer:** Dongguan Pan American Electronics Co., Ltd.
- Address:** No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City,
GuangDong Province, China P.O : 523227
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 of the Directive.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2018 and EN 60079-7: 2015 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- This 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.
- The marking of the product shall include the following:

II 3 G



Ex ec IIC Gc

-40°C ≤ Ta ≤ +40°C.

Certification Officer: _____


103593891

Todd L. Relyea

Date: _____

13 April 2020

SCHEDULE:

Type Examination Certificate Number: ITS20ATEX05531X

11. Description of Equipment or Protective System

LED High Bay Luminaire Models A, A2, A3

Model description

Ex-***W A3N50D120



Beam angle (D15, D20, D25...D120 denotes 15 degree to 120 degree)
Color temperature (30, 35, 40, 45, 50, 55, 60, 65 denotes 3000K to 6500K)
Dimable option (Y denotes dimable, N denotes Non-dimable)
Product code (A2, A and A3)
Wattage (10~200W)
Explosion proof product

12. Report Number

Intertek Report: 103593891CRT-003 Issue: N/A Dated: 9-April-2020.

13. Special Conditions of Certification

(a). Special Conditions of Use

- Control of environmental humidity to minimize the generation of static electricity.
- Touch with an insulating object
- Means to continuously drain off electrostatic charges

(b). Conditions of Manufacture - Routine Tests

- Dielectric Test - $(1,000 + 2U)$ V r.m.s. (+5%/-0) for 60s without breakdown or 1.2 times the test voltage for 100ms.
- D.C. test voltages are permitted as an alternative to the specified a.c. test voltage and shall be 170 % of the specified a.c., r.m.s. test voltage for insulated windings, or 140 % of the specified a.c., r.m.s. test voltage for situations where air or creepage distance is the insulating medium.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed
Intertek Report: 103593891CRT-003 Issue: N/A Dated: 9-April-2020.

15. Drawings and Documents

Technical Documents Model A Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series A) High Bay Product Drawings	EX-yyyW AXYZD	A1	Dec.2019
Detail list	Ex-yyyW AXYZD	A1	2019-12-19
Drawings Contents	Ex-yyyW AXYZD	A1	2019-12-19
Explosion Proof Light (Series A) High Bay Assembly	EX-XXXW-AYZ	A1	2019-12-19
Cabinet Bottom Lighting	EX-XXXW-AYZ-001	A1	2019-12-19
Cabinet Power Bottom	EX-XXXW-AYZ-002	A1	2019-12-19
Cabinet Top Lighting	EX-XXXW-AYZ-003	A1	2019-12-19
Cabinet Top Power Box	EX-XXXW-AYZ-004	A1	2019-12-19
Tempered Glass	EX-XXXW-AYZ-005	A1	2019-12-19
Cantilever Support	EX-XXXW-AYZ-006	A1	2019-12-19
Cantilever Support Stand	EX-XXXW-AYZ-007	A1	2019-12-19
Waterproof Ring D	EX-XXXW-AYZ-008	A1	2019-12-19
Waterproof Ring A	EX-XXXW-AYZ-009	A1	2019-12-19
Waterproof Ring B	EX-XXXW-AYZ-010	A1	2019-12-19
Waterproof Ring C	EX-XXXW-AYZ-011	A1	2019-12-19
Nameplate	EX-XXXW-AYZ-012	A3	2019.10.7
press cable plate	EX-XXXW-BYZ-009	A1	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Earthing name plate	EX-XXXW-AYZ-013	A	2019-12-19
Earthing	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Led Aluminium Substrate	EX-XXXW-AYZ-016	A1	2019-12-19
Sch of Series A	EX-YYX-AXYX-SCH01	A	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-12-19
Hard Net Cover	EX-XXXW-AYZ-018	A1	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2019-06-21

Technical Documents Model A2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Sch of series A2	EX-YYYY-A2XYX-SCH01	A	2019-5-30
Explosion proof light (Series A2) High Bay Product Drawings	EX-yyyW A2XYZD	A1	Dec.2019
Detail list	Ex-yyyW A2XYZD	A1	2019-12-19
Drawings Contents	Ex-yyyW A2XYZD	A1	2019-12-19
Explosion Proof Light (Series A2) High Bay Assembly	EX-XXXW-A2YZ	A1	2019-12-19
A2 Cabinet Top Lighting	EX-XXXW-A2YZ-001	A	2019-6-20
A2 Cabinet Bottom Lighting	EX-XXXW-A2YZ-002	A	2019-6-20
A2 Cabinet Top Power Box	EX-XXXW-A2YZ-003	A	2019-6-20
A2 Cabinet Bottom Power Box	EX-XXXW-A2YZ-004	A	2019-6-20
A2 Cantilever Support	EX-XXXW-A2YZ-005	A	2019-6-20
A2 Tempered Glass	EX-XXXW-A2YZ-006	A	2019-6-20
Waterproof Ring A	EX-XXXW-A2YZ--007	A	2019-6-20
Waterproof Ring B	EX-XXXW-A2YZ-008	A	2019-6-20
Waterproof Ring C	EX-XXXW-A2YZ-009	A	2019-6-20
Led Aluminium Substrate	EX-XXXW-A2YZ-010	A	2019-6-20
Cable Gland	EX-XXXW-A2YZ-011	A1	2019-6-06
Nameplate	EX-XXXW-A2YZ-018	A1	2019-10-07
Flexible cable	EX-XXXW-AYZ-017	A	2019-6-20
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-6-20
Earthing/Ground	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-6-20
Lens	EX-TYJ-024	A	2019-6-20

Flexible Metal Conduit	FBD-TYJ-009	A	2019-6-20
Mounting Adapter	EX-XXXW-FYZ-011	A	2019-6-20
HARD NET COVER	EX-XXXW-A2YZ-019	A1	2018-8-06
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06

Technical Documents Model A3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series A3) High Bay Product Drawings	EX-yyyW A3XYZD	A1	Dec.2019
Detail list	Ex-yyyW A3XYZD	A1	2019-6-18
Drawings Contents	Ex-yyyW A3XYZD	A1	2019-6-18
Explosion Proof Light (Series A3) High Bay Assembly	EX-XXXW-A3YZ	A1	2019-12-19
A3 Cabinet Top Lighting	EX-XXXW-A3YZ-001	A1	2019-12-19
A3 Cabinet Bottom Lighting	EX-XXXW-A3YZ-002	A1	2019-12-19
A3 Cabinet Top Power Box	EX-XXXW-A3YZ-003	A1	2019-12-19
A3 Cabinet Bottom Power Box	EX-XXXW-A3YZ-004	A1	2019-12-19
A3 Cantilever Support	EX-XXXW-A3YZ-005	A1	2019-12-19
A3 Cantilever Support Stand	EX-XXXW-A3YZ-006	A1	2019-12-19
A3 Tempered Glass	EX-XXXW-A3YZ-007	A1	2019-12-19
Waterproof Ring A	EX-XXXW-A3YZ--008	A1	2019-12-19
Waterproof Ring B	EX-XXXW-A2YZ-008	A	2019-6-20
Waterproof Ring C	EX-XXXW-A3YZ-009	A1	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Nameplate	EX-XXXW-A3YZ-018	A1	2019-10-7
Earthing/ground	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
Led Aluminium Substrate	EX-XXXW-A3YZ-066	A1	2019-12-19

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.
Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

EX-YYYW-A3XYX-SCH01	Sch of Series A3	A1	2019-12-19
Lens	EX-TYJ-024	A	2019-6-20
Flexible Metal Conduit	FBD-TYJ-009	A	2019-6-20
Mounting Adapter	EX-XXXW-FYZ-011	A	2019-6-20
Cable Gland	EX-XXXW-A2YZ-020	A1	2019-06-21
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-12-19



This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

EU-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive
2014/34/EU

- EU-Type Examination Certificate Number:** ITS20ATEX05550X **Issue 0**
- Product:** LED High Bay Luminaire Models B, B2, B3
- Manufacturer:** Dongguan Pan American Electronics Co., Ltd.
- Address:** No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province, China P.O : 523227
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 of the Directive.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2018 and EN 60079-7:2015 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- 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.
- The marking of the product shall include the following:

II 3 G



Ex ec IIC T3 Gc

-40°C ≤ Ta ≤ +40°C.

Certification Officer:  **Date:** 23 April 2020
Todd L. Relyea

SCHEDULE:

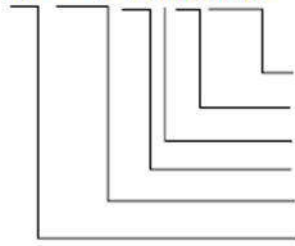
EU-Type Examination Certificate Number: ITS20ATEX05550X – Issue 0

11. Description of Equipment or Protective System

LED High Bay Luminaire Models B, B2, B3

Model description

Ex-***W B3N50D120



Beam angle (D15, D20, D25...D120 denotes 15 degree to 120 degree)
Color temperature (30, 35, 40, 45, 50, 55, 60, 65 denotes 3000K to 6500K)
Dimable option (Y denotes dimable, N denotes Non-dimable)
Product code (B2, B and B3)
Wattage (10~200W)
Explosion proof product

12. Report Number

Intertek Report: 103593918CRT-003a, Dated: 16-April-2020.

13. Special Conditions of Certification

(a). Special Conditions of Use

- Control of environmental humidity to minimize the generation of static electricity.
- Touch with an insulating object
- Means to continuously drain off electrostatic charges

(b). Conditions of Manufacture - Routine Tests

- Dielectric Test - (1,000 + 2U) V r.m.s. (+5%/-0) for 60s without breakdown
- D.C. test voltages are permitted as an alternative to the specified a.c. test voltage and shall be 170 % of the specified a.c., r.m.s. test voltage for insulated windings, or 140 % of the specified a.c., r.m.s. test voltage for situations where air or creepage distance is the insulating medium.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed
Intertek Report: 103593918CRT-003a, Dated: 16-April-2020.

15. Drawings and Documents

Technical Documents Model B Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B) High Bay Product Drawings	EX-yyyW BXYZD	A1	Dec 2019
Detail list	EX-XXXW BYZD	A1	2019-5-25
Drawings Contents	EX-XXXW BYZD-1	A1	2019-5-25
Sch of series B	EX-XXXW-BYZ-SCH	A1	2019-12-19
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
Earthing Nameplate	EX-XXXW-AYZ-013	A1	2018-8-06
Earthing	EX-XXXW-AYZ-014	A1	2018-8-06
Amphenol connector	EX-XXXW-AYZ-015	A1	2018-8-06
Flexible cable	EX-XXXW-AYZ-017	A1	2018-8-06
Explosion proof light (Series B) High Bay Assembly	EX-XXXW-BYZ	A1	2019-12-19
Cabinet-top-lighting	EX-XXXW-BYZ-001	A1	2019-12-19
Cabinet-bottom-lighting	EX-XXXW-BYZ-002	A1	2019-12-19
Cabinet-bottom-power-box	EX-XXXW-BYZ-003	A1	2019-12-19
Cabinet-top-power-box	EX-XXXW-BYZ-004	A1	2019-12-19
Gear-plate-A	EX-XXXW-BYZ-005	A1	2019-12-19
Gear-plate-B	EX-XXXW-BYZ-006	A1	2019-12-19
Bracket	EX-XXXW-BYZ-007	A1	2019-12-19
Hardware-net-cover	EX-XXXW-BYZ-008	A1	2019-12-19
Press cable plate	EX-XXXW-BYZ-009	A1	2019-12-19
Plate glass	EX-XXXW-BYZ-010	A1	2019-12-19
Spherical glass	EX-XXXW-BYZ-011	A1	2019-12-19
Waterproof-ring-A	EX-XXXW-BYZ-012	A1	2019-12-19
Waterproof-ring-B	EX-XXXW-BYZ-013	A1	2019-12-19
Waterproof-ring-C	EX-XXXW-BYZ-014	A1	2019-12-19

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Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

Waterproof-ring-D	EX-XXXW-BYZ-015	A1	2019-12-19
CON REFLECTOR-A	EX-XXXW-BYZ-016	A1	2019-12-19
CON REFLECTOR-B	EX-XXXW-BYZ-017	A1	2019-12-19
Nameplate	EX-XXXW-BYZ-018	A1	2019.10.7
PCB	EX-XXXW-BYZ-019	A1	2019-12-19
Hardware guard-A	EX-XXXW-BYZ-025	A1	2019-12-19
Lens	EX-XXXW-BYZ-026	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019

Technical Documents Model B2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B2) High Bay Product Drawings	EX-yyyW B2XYZD	A1	Dec.2019
Detail list	EX-XXXW B2YZD	A1	2019-5-25
Drawings Contents	EX-XXXW B2YZD-1	A1	2019-5-25
Assembly Drawing	EX-XXXW-B2YZ	A1	2019-12-19
Cabinet Top Lighting	EX-XXXW-BYZ-001	A1	2019-12-19
B2_Cabinet Bottom Lighting	EX-XXXW-B2YZ-001	A1	2019-12-19
B2_Cabinet power bottom	EX-XXXW-B2YZ-003	A1	2019-12-19
B2 Cabinet power top	EX-XXXW-B2YZ-004	A1	2019-12-19
Gear plate A	EX-XXXW-BYZ-005	A1	2019-12-19
Gear plate B	EX-XXXW-BYZ-006	A1	2019-12-19
Cantilever Support	EX-XXXW-BYZ-007	A1	2019-12-19
Hardware-net-cover	EX-XXXW-BYZ-008	A1	2019-12-19
Spherical glass	EX-XXXW-BYZ-011	A1	2019-12-19
Plate Glass	EX-XXXW-BYZ-010	A1	2019-12-19
Waterproof Ring A	EX-XXXW-BYZ-012	A1	2019-12-19
Waterproof Ring B	EX-XXXW-BYZ-013	A1	2019-12-19
Waterproof Ring C	EX-XXXW-BYZ-014	A1	2019-12-19
Waterproof Ring E(B2)	EX-XXXW-B2YZ-005	A1	2019-12-19
CON reflector A	EX-XXXW-BYZ-016	A1	2019-12-19
CON reflector B	EX-XXXW-BYZ-017	A1	2019-12-19

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Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

Technical Documents Model B2 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Name plate	EX-XXXW-B2YZ-006	A1	2019.10.7
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding location name plate	EX-XXXW-AYZ-013	A	2019-12-19
Grounding wire	EX-XXXW-AYZ-014	A	2019-12-19
LED PCB	EX-XXXW-BYZ-019	A1	2019-12-19
Flexible cable	EX-XXXW-AYZ-017	A1	2019-12-19
Hardware guard-A	EX-XXXW-BYZ-025	A1	2019-12-19
Lens	EX-XXXW-BYZ-026	A1	2019-12-19
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
SCH of series B2	EX-XXXW-B2YZ-SCH	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019

Technical Documents Model B3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
Explosion proof light (Series B3) High Bay Product Drawings	EX-yyyW B3XYZD	A1	Dec.2019
Detail list	EX-XXXW-B3YZD	A1	2019-5-30
Drawings Contents	EX-XXXW-B3YZD-1	A1	2019-5-30
B3 Cabinet Top Lighting	EX-XXXW-B3YZ-001	A1	2019-12-19
B3 Cabinet Bottom Lighting	EX-XXXW-B3YZ-002	A1	2019-12-19
B3 Cabinet Bottom power box	EX-XXXW-B3YZ-003	A1	2019-12-19
B3 Cabinet power top box	EX-XXXW-B3YZ-004	A1	2019-12-19
B3 cantilever support	EX-XXXW-B3YZ-005	A1	2019-12-19
B3 cantilever support stand	EX-XXXW-B3YZ-006	A1	2019-12-19
Hardware guard	EX-XXXW-B3YZ-007	A1	2019-12-19
B3 Tempered Glass	EX-XXXW-B3YZ-008	A1	2019-12-19
B3 Spherical Glass	EX-XXXW-B3YZ-009	A1	2019-12-19

Technical Documents Model B3 Drawings			
Title:	Drawing No.:	Rev. Level:	Date:
B3 waterproof ring_A	EX-XXXW-B3YZ-011	A1	2019-12-19
Waterproof ring_B	EX-XXXW-BYZ-013	A1	2019-12-19
Waterproof ring_C	EX-XXXW-BYZ-014	A1	2019-12-19
B3 Waterproof ring_E	EX-XXXW B3YZ-010	A1	2019-12-19
Nameplate	EX-XXXW-B3YZ-012	A3	2019.10.7
Cable gland	EX-XXXW-A2YZ-020	A1	2018-8-06
Mounting Adapter G3/4	EX-TYJ-020	A	2019-12-19
Mounting Adapter M25	EX-TYJ-021	A	2019-12-19
Mounting Adapter M20	EX-TYJ-022	A	2019-12-19
Mounting Adapter 1/2NPT	EX-TYJ-023	A	2019-12-19
External bonding Name plate	EX-XXXW-AYZ-013	A	2019-12-19
Earthing Wire	EX-XXXW-AYZ-014	A	2019-12-19
Amphenol Connector	EX-XXXW-AYZ-015	A	2019-12-19
LED PCB	EX-XXXW-B3YZ-013	A1	2019-12-19
Flexible Cable	EX-XXXW-AYZ-017	A	2019-12-19
Hardware guard B	EX-XXXW-B3YZ-015	A1	2019-12-19
CON reflector-A	EX-XXXW-B3YZ-016	A1	2019-12-19
CON reflector-B	EX-XXXW-B3YZ-017	A1	2019-12-19
Cable Gland	EX-XXXW-A2YZ-020	A1	2018-8-16
Sch of series B3	EX-XXXW-B3YZ-SCH	A1	2019-12-19
EX-XXXW-BYZ-026	Lens	A1	2019-12-19
Series B installation instructions	FM20191217001B	A	Sep. 17th, 2019



Product Service

(1) **EU-Type Examination Certificate**

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**



(3) EU-Type Examination Certificate Number:

TPS 22 ATEX 102136 0016 X Rev. 00

(4) Equipment or Protective System: **LED High Bay Luminaire Type: EX-***W**N**D****

(5) Manufacturer: **Dongguan Pan American Electronics Co., Ltd.**

(6) Address: **No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523277, P.R.China**

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

(8) TÜV SÜD Product Service GmbH, Notified Body no. 0123, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the 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 the confidential reports with no. 88.500.22.113.01

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 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 product shall include the following:



II 3G Ex ec IIC T6...T3 Gc

II 2D Ex tb IIIC T85 °C...T103 °C Db

Certification Body,

München, 30.07.2022

Ing. Frank Zhu, MSc.

: Frank Zhu

Schedule



Product Service

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(14)

EU-Type Examination Certificate no.

TPS 22 ATEX 102136 0016 X Rev. 00

Model designation:

Ex-***W**N**D**
 1 2 3 4

1-Wattage(W): 10-400.

2-Product code: A, A2, A3, A4, B, B2, B3, B4.

3-Colour temperature: the number 30 to 65 means 3000K to 6500K.

4-Beam angle(degree): 15, 20, 25...120

Model difference:

The difference between product code A, A2, A3, A4 is the product size and the Max. input power.

The difference between product code B, B2, B3, B4 is the product size and the Max. input power.

The difference between product code series A and series B is the shape of the product appearance.

Details see below table.

Technical data:

Rated current and voltage of EX-***W**N**D** series LED Luminaires:

100-277VAC 50/60Hz

The degree of protection of LED luminaires is IP66. (tested as per EN IEC 60079-0)

The relation between applicable ambient temperature, temperature class, maximum temperature and maximum input power are as below:

Model	Maximum input power(W)	Ambient temperature	Temperature class(gas/dust)
EX-***WA4N**D**	300	-40°C≤Ta≤+55°C	T3/T100 °C
	120	-40°C≤Ta≤+40°C	T4/T85 °C
	60	-40°C≤Ta≤+40°C	T5/T85 °C
	40	-40°C≤Ta≤+40°C	T6/T85 °C
EX-***WB4N**D**	400	-40°C≤Ta≤+55°C	T3/T100 °C
	120	-40°C≤Ta≤+40°C	T4/T85 °C
	60	-40°C≤Ta≤+40°C	T5/T85 °C
	40	-40°C≤Ta≤+40°C	T6/T85 °C
EX-***WA3N**D**	200	-40°C≤Ta≤+55°C	T3/T103 °C
	180	-40°C≤Ta≤+55°C	T3/T103 °C

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	150	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	120	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	100	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	80	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	60	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
EX-***WBN**D**	120	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	100	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	80	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	60	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
EX-***WB2N**D**	60	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	40	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	30	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	20	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
EX-***WB3N**D**	200	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	180	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	150	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	120	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	100	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	80	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	60	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T85 °C
EX-***WAN**D**	120	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	100	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	80	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	60	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
EX-***WA2N**D**	60	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	50	-40°C ≤ Ta ≤ +55°C	T3/T103 °C
	40	-40°C ≤ Ta ≤ +55°C	T3/T103 °C

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EU-Type Examination Certificate no.

TPS 22 ATEX 102136 0016 X Rev. 00

Warning label:

WARNING- POTENTIAL ELECTROSTATIC CHARGING HAZARD
WARNING- DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
WARNING- DO NOT OPEN WHEN ENERGIZED

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

See also (17) Special conditions for safe use.

(16) **Test report(s):** 88.500.22.113.01

Routine tests:

The LED Luminaires shall be subjected to the following routine tests in accordance with EN IEC 60079-7:2015+A1:2018

Electric strength test (clause 7.1):

On 100% of production, LED luminaire shall be subjected to a dielectric strength test (2U+1000) V r.m.s (0 to +5) % for 60 (0 to +5) s with no occurrence of breakdown. Alternatively, the test shall be carried out between power supply circuit and metal enclosure (external earthing facility) at 1.2 times the test voltage but shall be maintained for at least 100 ms.

Document List:

File no.:	Description:	Pages:	Rev:	Date:
EX-XXXW-A4YZ	A4 Assembly	1	A0	2022-03-16
EX-XXXW-A4YZ-012	A4-PSCH	1	A0	2022-03-19
EX-XXXW-B4YZ	B4 Assembly	1	A1	2022-03-23
EX-XXXW-B4YZ-013	B4-PSCH	1	A1	2022-03-23
EX-TYJ-024	Len	1	A	2022-03-19
FBD-TYJ-009	Flexible Metal Conduit	1	A	2022-03-19
EX-XXXW-FYZ-011	Mounting Adapter	1	A	2022-03-19
EX-TYJ-66	FLOOD-LIGHT-LENS	1	A1	2022-03-19
EX-xxxW-AYZ	Explosion proof light (Series A) High BayProduct Drawings	1	A1	2022-03-19
EX-xxxW-A2YZ	Explosion proof light (Series A2) High BayProduct Drawings	1	A1	2022-03-19
EX-XXXW-A2YZ-015	A2-PSCH	1	A2	2022-03-19

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EU-Type Examination Certificate no.

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File no.:	Description:	Pages:	Rev:	Date:
EX-xxxW-A3YZ	A3 Assembly drawing	1	A1	2022-03-19
EX-XXXW-A3YZ-015	A3-PSCH	1	A0	2022-03-19
EX-xxxW-A4YZ	A4 Assembly drawing	1	A0	2022-03-16
EX-XXXW-A4YZ-012	A4-PSCH	1	A0	2022-03-19
EX-xxxW-BYZ	Explosion proof light (Series B) High Bay Assembly	1	A1	2022-03-23
EX-XXXW-BYZ-030	B-PSCH	1	A1	2022-03-23
EX-xxxW-B2YZ	Explosion proof light (Series B2) High BayProduct Drawings	1	A1	2022-03-23
EX-XXXW-B2YZ-030	B2-PSCH	1	A1	2022-03-23
EX-xxxW-B3YZ	Explosion proof light (Series B3) High BayProduct Drawings	1	A1	2022-03-23
EX-XXXW-B3YZ-027	B3-PSCH	1	A1	2022-03-23
EX-xxxW-B4YZ	B4 Assembly	1	A0	2022-03-23
EX-XXXW-B4YZ-027	B4-PSCH	1	A1	2022-03-23
EX-XXXW-A2YZ-018	Nameplate	1	A/0	2021-04-18
FM20220325001A	installation instructions	9	A	2022-03-25
FM20220430A	DOC	2	/	2022-06-15

A copy of the full documentation is kept confidentially at TÜV SÜD.

(17) Special conditions for safe use:

1. The cable entry holes shall be connected by means of suitable cable entry devices which are in conformity with the ATEX 2014/34/EU Directive with the same protection type as this certification and in minimum IP66.
2. The unused entry holes shall be blanked by means of suitable blanking elements and which are in conformity with the ATEX 2014/34/EU Directive with the same protection type as this certification and in minimum IP66.
3. The warning words "WARNING-POTENTIAL ELECTROSTATIC CHARGING HAZARD" are provided on the nameplate. Method should be taken to avoid the accumulation of electrostatic charge, such like clean the enclosure with damp cloth, control the environmental humidity, effective grounding.

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Doc Name: Temp-Ex1B6 TPS EU Type Cx Rev. 14

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TPS 22 ATEX 102136 0016 X Rev. 00**

- 4. The installation shall be installed according to the requirement of EN 60079-14: latest version (or its National Equivalent Standard at its location place of installation).
- 5. The cable shall be selected and installed by the end user, the withstand temperature of the cable shall be not less than 105 °C

(18) Essential health and safety requirements:

Assured by compliance with standards set out in (9).

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Doc. Name: Type EX/RC TPS 22 Type 102136 Rev. 00



Product Service

(1) **EU-Type Examination Certificate**

(2) **Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres – Directive 2014/34/EU**



(3) **EU-Type Examination Certificate Number:**

TPS 22 ATEX 102136 0016 X Rev. 00

(4) **Equipment or Protective System: LED High Bay Luminaire Type: EX-***W**N**D****

(5) **Manufacturer: Dongguan Pan American Electronics Co., Ltd.**

(6) **Address: No.175 Beiwang Road, Zhongtang Town, Dongguan City, Guangdong Province 523277, P.R.China**

(7) **This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.**

(8) **TÜV SÜD Product Service GmbH, Notified Body no. 0123, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the 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 the confidential reports with no. 88.500.22.113.01

(9) **Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-31:2014

(10) **If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 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 product shall include the following:**



II 3G Ex ec IIC T6...T3 Gc

II 2D Ex tb IIIC T85 °C...T103 °C Db

Certification Body,

München, 30.07.2022

Ing. Frank Zhu, MSc.

: Frank Zhu



(13)

Schedule

(14)

EU-Type Examination Certificate no.

TPS 22 ATEX 102136 0016 X Rev. 00

Certificate History

Revision:	Description:	Report no.:	Issue Date:
Rev. 00	First issue of certificate.	88.500.22.113.01	30.07.2022

(15)

Description of equipment:

The LED High Bay Luminaire is with type of protection "ec" and "tb". They are suitable for use in Zone 2 and Zone 21 Explosive Gas and Dust atmospheres. Each LED luminaire consists of drive enclosure cover, lamp enclosure body, lamp enclosure cover with tempered glass, made of aluminium alloy ADC12, all components are housed within a sealed IP66 enclosure.

The compartment of the wiring and driver compartment and the LED lighting compartment with the LED array and its connection is designed as increased safety protection Ex ec.

Three threaded entry holes with thread forms 3/4NPT, M25×1.5, M20×1.5 or M16×1.5 are provided in the enclosure of power compartment to connect certified cable gland, conduit or blanking element. one is used for cable entry, the others are for test port. Both shall be connected by means of suitable cable entry devices and blanking plugs by end user which are in conformity with the ATEX 2014/34/EU Directive with the same protection type as this certification and in minimum IP66.

See the user instructions for further details.

The equipment for use in Zone 2 (ATEX Category 3 G), in equipment protection type Ex "ec", is accessed on a voluntary basis.



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EU-Type Examination Certificate no.
TPS 22 ATEX 102136 0016 X Rev. 00

Model designation:

Ex-***W**N**D**
 1 2 3 4

- 1-Wattage(W): 10-400.
- 2-Product code: A, A2, A3, A4, B, B2, B3, B4.
- 3-Colour temperature: the number 30 to 65 means 3000K to 6500K.
- 4-Beam angle(degree): 15, 20, 25...120

Model difference:

The difference between product code A, A2, A3, A4 is the product size and the Max. input power.
 The difference between product code B, B2, B3, B4 is the product size and the Max. input power.
 The difference between product code series A and series B is the shape of the product appearance.
 Details see below table.

Technical data:

Rated current and voltage of EX-***W**N**D** series LED Luminaires:
 100-277VAC 50/60Hz

The degree of protection of LED luminaires is IP66. (tested as per EN IEC 60079-0)

The relation between applicable ambient temperature, temperature class, maximum temperature and maximum input power are as below:

Model	Maximum input power(W)	Ambient temperature	Temperature class(gas/dust)
EX-***WAN**D**	120	-40°C≤Ta≤+40°C	T3/T103 °C
	100	-40°C≤Ta≤+40°C	T3/T103 °C
	80	-40°C≤Ta≤+40°C	T3/T103 °C
	60	-40°C≤Ta≤+40°C	T3/T103 °C
	50	-40°C≤Ta≤+40°C	T3/T103 °C
EX-***WA2N**D**	60	-40°C≤Ta≤+40°C	T3/T103 °C
	50	-40°C≤Ta≤+40°C	T3/T103 °C
	40	-40°C≤Ta≤+40°C	T3/T103 °C
	30	-40°C≤Ta≤+40°C	T3/T103 °C
	20	-40°C≤Ta≤+40°C	T3/T103 °C
EX-***WA3N**D**	200	-40°C≤Ta≤+40°C	T3/T103 °C
	180	-40°C≤Ta≤+40°C	T3/T103 °C

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	150	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
	120	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
	100	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
	80	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
	50	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T103 °C
EX-***WBN**D**	120	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	100	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	80	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	50	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
EX-***WB2N**D**	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	50	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	40	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	30	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	20	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
EX-***WB3N**D**	200	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	180	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	150	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	120	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	100	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	80	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
	50	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T3/T85 °C
EX-***WA4N**D**	300	$-40^{\circ}\text{C} \leq T_{a5} \leq +55^{\circ}\text{C}$	T3/T100 °C
	120	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T4/T85 °C
	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T5/T85 °C
	40	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T6/T85 °C
EX-***WB4N**D**	400	$-40^{\circ}\text{C} \leq T_{a5} \leq +55^{\circ}\text{C}$	T3/T100 °C
	120	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T4/T85 °C
	60	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T5/T85 °C
	40	$-40^{\circ}\text{C} \leq T_{a5} \leq +40^{\circ}\text{C}$	T6/T85 °C

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Doc Name: Form-Ex WBG TPS-EU Typen-Rev. 04

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Warning label:

WARNING- POTENTIAL ELECTROSTATIC CHARGING HAZARD
 WARNING- DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
 WARNING- DO NOT OPEN WHEN ENERGIZED

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

See also (17) Special conditions for safe use.

(16) Test report(s): 88.500.22.113.01

Routine tests:

The LED Luminaires shall be subjected to the following routine tests in accordance with EN IEC 60079-7:2015+A1:2018

Electric strength test (clause 7.1):

On 100% of production, LED luminaire shall be subjected to a dielectric strength test (2U+1000) V r.m.s (0 to +5) % for 60 (0 to +5) s with no occurrence of breakdown. Alternatively, the test shall be carried out between power supply circuit and metal enclosure (external earthing facility) at 1.2 times the test voltage but shall be maintained for at least 100 ms.

Document List:

File no.:	Description:	Pages:	Rev:	Date:
EX-XXXW-A4YZ	A4 Assembly	1	A0	2022-03-16
EX-XXXW-A4YZ-012	A4-PSCH	1	A0	2022-03-19
EX-XXXW-B4YZ	B4 Assembly	1	A1	2022-03-23
EX-XXXW-B4YZ-013	B4-PSCH	1	A1	2022-03-23
EX-TYJ-024	Len	1	A	2022-03-19
FBD-TYJ-009	Flexible Metal Conduit	1	A	2022-03-19
EX-XXXW-FYZ-011	Mounting Adapter	1	A	2022-03-19
EX-TYJ-66	FLOOD-LIGHT-LENS	1	A1	2022-03-19
EX-xxxW-AYZ	Explosion proof light (Series A) High BayProduct Drawings	1	A1	2022-03-19
EX-xxxW-A2YZ	Explosion proof light (Series A2) High BayProduct Drawings	1	A1	2022-03-19
EX-XXXW-A2YZ-015	A2-PSCH	1	A2	2022-03-19

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File no.:	Description:	Pages:	Rev:	Date:
EX-xxxW-A3YZ	A3 Assembly drawing	1	A1	2022-03-19
EX-XXXW-A3YZ-015	A3-PSCH	1	A0	2022-03-19
EX-xxxW-A4YZ	A4 Assembly drawing	1	A0	2022-03-16
EX-XXXW-A4YZ-012	A4-PSCH	1	A0	2022-03-19
EX-xxxW-BYZ	Explosion proof light (Series B) High Bay Assembly	1	A1	2022-03-23
EX-XXXW-BYZ-030	B-PSCH	1	A1	2022-03-23
EX-xxxW-B2YZ	Explosion proof light (Series B2) High BayProduct Drawings	1	A1	2022-03-23
EX-XXXW-B2YZ-030	B2-PSCH	1	A1	2022-03-23
EX-xxxW-B3YZ	Explosion proof light (Series B3) High BayProduct Drawings	1	A1	2022-03-23
EX-XXXW-B3YZ-027	B3-PSCH	1	A1	2022-03-23
EX-xxxW-B4YZ	B4 Assembly	1	A0	2022-03-23
EX-XXXW-B4YZ-027	B4-PSCH	1	A1	2022-03-23
EX-XXXW-A2YZ-018	Nameplate	1	A/0	2021-04-18
FM20220325001A	installation instructions	9	A	2022-03-25
FM20220430A	DOC	2	/	2022-06-15

A copy of the full documentation is kept confidentially at TÜV SÜD.

(17) Special conditions for safe use:

1. The cable entry holes shall be connected by means of suitable cable entry devices which are in conformity with the ATEX 2014/34/EU Directive with the same protection type as this certification and in minimum IP66.
2. The unused entry holes shall be blanked by means of suitable blanking elements and which are in conformity with the ATEX 2014/34/EU Directive with the same protection type as this certification and in minimum IP66.
3. The warning words "WARNING-POTENTIAL ELECTROSTATIC CHARGING HAZARD" are provided on the nameplate. Method should be taken to avoid the accumulation of electrostatic charge, such like clean the enclosure with damp cloth, control the environmental humidity, effective grounding.

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Doc Name: Temp-Ex1B6 TPS EU Type Cx Rev. 14

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- 4. The installation shall be installed according to the requirement of EN 60079-14: latest version (or its National Equivalent Standard at its location place of installation).
- 5. The cable shall be selected and installed by the end user, the withstand temperature of the cable shall be not less than 105 °C

(18) **Essential health and safety requirements:**

Assured by compliance with standards set out in (9).

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Doc. Name: TUV SUD ATEX TPS 22 Type 0016 Rev. 00



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

Certificate No.: **IECEX TPS 22.0028X** Page 1 of 5 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-08-15
Applicant: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road
Zhongtang Town
DongGuan City, GuangDong Province 523227
China
Equipment: **Explosion-proof LED lamp**
Optional accessory: EX-XXXW-A/A2/A3/A4 YZDA, EX-XXXW-B/B2/B3/B4/B5 YZDA
Type of Protection: **Increased safety "eb", Encapsulation "mb", dust ignition protection by enclosure "tb"**
Marking: Ex eb mb IIC T5...T6 Gb
Ex tb IIIC T80°C...T100°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Frank Zhu, MSc.

Position:

Technical Certifier

Signature:
(for printed version)

Date:
(for printed version)

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 or use of this QR Code.



Certificate issued by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany



Product Service



IECEX Certificate of Conformity

Certificate No.: **IECEX TPS 22.0028X**

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Date of issue: 2022-08-15

Issue No: 0

Manufacturer: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road
Zhongtang Town
DongGuan City, GuangDong Province 523227
China

Manufacturing locations: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road
Zhongtang Town
DongGuan City, GuangDong Province
523227
China

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 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[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:

[DE/TPS/ExTR22.0029/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx TPS 22.0028X**

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Date of issue: 2022-08-15

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description of equipment:

This LED lamps EX-XXXW-A/A2/A3/A4 YZDA and EX-XXXW-B/B2/B3/B4/B5 YZDA are luminaires that are intended for used in Group II explosive atmospheres classified as gas Zone 1 & Zone 2, gas group IIC and for dust Zone 21 and Zone 22, dust group IIIC.

Each LED luminaire consists of a lamp enclosure, heat sink, drive enclosure cover, lamp enclosure cover(made of aluminum alloy ADC12) with tempered glass. Inside the enclosure there are LED lenses , a driver and a terminal block. Gaskets are provided to guarantee the IP66 protection.

Only the drive enclosure is intended to be opened for installation or maintenance.

There are three threaded holes on the drive enclosure wall, all are used for cable entry and installed with a certified cable gland and blank plugs. Installation angle can be vertical and horizontal.

Model designation

EX-XXXW-A/A2/A3/A4 Y ZDA

1 2 3 4

1. Explosion proof light: Ex
2. Luminaires Wattage: 60, 80,100, 200, 240, 400
3. Product code:A, A2,A3,A4
4. Dimable optional: Y denoted dimable, N denotes Non-dimable

EX-XXXW- B/B2/B3/B4/B5 Y ZDA

1 2 3 4

1. Explosion proof light: Ex
2. Luminaires Wattage: 60, 80,100, 200, 240, 400
3. Product code:B, B2,B3,B4,B5
4. Dimable optional: Y denoted dimable, N denotes Non-dimable

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The relation between applicable ambient temperature, temperature class, maximum temperature and maximum input power see table 1 of this ExTR cover.
2. Blanking element and external cable gland are separate certified in compliance with IECEx Certificate of conformity. It cannot be replaced or repaired by the end-user. Contact the manufacturer in case of damage or repair.
3. The installation must be in accordance with the requirements of IEC 60079-14: latest version, valid at the location of installation.
4. The cable shall be selected and installed by the end user, the withstand temperature of the cable shall be not less than 105°C.
5. All special conditions of the separately products must be observed.



IECEx Certificate of Conformity

Certificate No.: **IECEx TPS 22.0028X**

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Date of issue: 2022-08-15

Issue No: 0

Equipment (continued):

Technical data:

- Rated voltage: 200-250VAC
- Effective frequency range: 50/60 Hz
- Degree of protection: IP66 (according to IEC 60079-0)

Table 1: Electrical rating

Model	Ambient temperature	Explosive gas atmosphere	Explosive dust atmosphere	Maximum input power(W)
		Temperature class	Maximum surface temperature	
EX-XXXW-A2YZDA EX-XXXW-B2YZDA	-40°C to +40°C	T6	T80°C	60
	-40°C to +50°C	T5	T100°C	60
EX-XXXW-AYZDA EX-XXXW-BYZDA	-40°C to +40°C	T6	T80°C	100
	-40°C to +45°C	T5	T100°C	100
EX-XXXW-A3YZDA	-40°C to +40°C	T6	T80°C	200
	-40°C to +45°C	T5	T100°C	200
EX-XXXW-B3YZDA	-40°C to +40°C	T5	T100°C	200
EX-XXXW-A4YZDA	-40°C to +25°C	T5	T100°C	400
	-40°C to +45°C	T5	T100°C	200
EX-XXXW-B4YZDA	-40°C to +30°C	T5	T100°C	400
EX-XXXW-B5YZDA	-40°C to +40°C	T5	T100°C	100

Warning label:

WARNING- POTENTIAL ELECTROSTATIC CHARGING HAZARD

WARNING- DONOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

WARNING- DONOT OPERATE WHEN ENERGIZED

Installation instruction:

See installation instructions provided by manufacturer.

Routine tests:

100% routine testing has to be done by manufacturer.

A dielectric strength test with 1800 V ac between power supply circuit and metal enclosure (external earthing facility) for at least 100 ms without dielectric breakdown occurring.



IECEX Certificate of Conformity

Certificate No.: **IECEX TPS 22.0028X**

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Date of issue: 2022-08-15

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A dielectric strength test with 1800 V ac between circuit and the surface of the compound for at least 100 ms without dielectric breakdown occurring.

The leakage current shall be less than 5mA.

Ex component and Ex equipment used subjected to separated certificate:

Apparatus	Type	Manufacturer	Ex Marking	IECEX COC No.
Explosion-proof cable gland	EX-QM series	Dongguan Pan American Electronics Co., Ltd.	Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db	IECEX TPS 20.0012X
Ex stopping plugs	HLBM 41/42/43 Series	Helon Explosion-proof Electric Co., LTD	Ex db II C Gb Ex eb II C Gb Ex ta III C Da	IECEX CNEX 19.0003U
Explosion proof driver	EX-***W-*A*-B	Dongguan Pan American Electronics Co., Ltd.	Ex mb IIC Gb	IECEX SIR 21.0007U
Feed-through terminal block	MSB 2,5***, MSDB 2,5*** and MSB 2,5***-PE	PHOENIX CONTACT GmbH & Co. KG	Ex eb IIC, Ex eb I	IECEX PTB 08.0048U
Device Terminal Block	G5/**-Ex	PHOENIX CONTACT GmbH & Co. KG	Ex eb IIC Gb	IECEX PTB 06.0043U

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4. Dimable optional: Y denoted dimable, N denotes Non-dimable
 5. Optional: F: for food zone or blank

Technical data:

- Rated voltage: 200-250VAC
- Effective frequency range: 50/60 Hz
- Degree of protection: IP66 (according to EN IEC 60079-0)

Table 1: Electrical rating

Model	Ambient temperature	Explosive gas atmosphere	Explosive dust atmosphere	Maximum input power(W)
		Temperature class	Maximum surface temperature	
EX-XXXW-A2YZDAF	-40°C to +40°C	T6	T80°C	60
	-40°C to +50°C	T5	T100°C	60
	-40°C to +55°C	T5	T100°C	40
	-40°C to +65°C	T5	T100°C	20
EX-XXXW-B2YZDAF	-40°C to +40°C	T6	T80°C	60
	-40°C to +50°C	T5	T100°C	60
	-40°C to +55°C	T6	T80°C	30
	-40°C to +65°C	T6	T80°C	20
EX-XXXW-AYZDAF	-40°C to +40°C	T6	T80°C	100
	-40°C to +45°C	T5	T100°C	100
	-40°C to +55°C	T6	T80°C	50
	-40°C to +65°C	T5	T100°C	30
EX-XXXW-BYZDAF	-40°C to +40°C	T6	T80°C	100
	-40°C to +45°C	T5	T100°C	100
	-40°C to +55°C	T5	T100°C	50
	-40°C to +65°C	T4	T100°C	30
EX-XXXW-A3YZDAF	-40°C to +40°C	T6	T80°C	200
	-40°C to +45°C	T5	T100°C	200
	-40°C to +55°C	T6	T80°C	100
	-40°C to +65°C	T5	T100°C	40
EX-XXXW-B3YZDAF	-40°C to +40°C	T5	T100°C	200

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ZERTIFIKAT ♦ **CERTIFICATE** ♦ **認證書** ♦ **CERTIFIKAT** ♦ **CERTIFICADO** ♦ **CERTIFICAT**

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TPS 22 ATEX 102136 0013 X Rev. 01

	-40°C to +55°C	T5	T100°C	120
	-40°C to +65°C	T5	T100°C	40
EX-XXXW-A4YZDAF	-40°C to +25°C	T5	T100°C	400
	-40°C to +45°C	T5	T100°C	200
	-40°C to +40°C	T5	T100°C	300
	-40°C to +55°C	T4	T100°C	200
	-40°C to +65°C	T4	T100°C	80
	EX-XXXW-B4YZDAF	-40°C to +30°C	T5	T100°C
-40°C to +40°C		T6	T80°C	300
-40°C to +55°C		T5	T100°C	200
-40°C to +65°C		T5	T100°C	100
EX-XXXW-B5YZDAF	-40°C to +40°C	T5	T100°C	100
	-40°C to +55°C	T6	T80°C	60
	-40°C to +65°C	T6	T80°C	30

Warning label:

WARNING- POTENTIAL ELECTROSTATIC CHARGING HAZARD
 WARNING- DONOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
 WARNING- DONOT OPERATE WHEN ENERGIZED

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

See also (17) Special conditions for safe use.

(16) Test report(s): 88.500.21.020.02

Routine tests:

100% routine test has to be done by manufacturer.

The manufacturer shall carry out a dielectric strength test with (1000+2U) V r.m.s. (+5%/-0) between power supply circuit and metal enclosure(external earthing facility) at least 1 min without dielectric breakdown occurred

Document List:

Page 4 / 6

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 102136 0017 Rev. 01

Doc. Name: Temp-ExNBG-TPS-EU-Type-Cert-Rev. 01

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 München • Germany



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A4 / 07-17

Schedule



(13)

(14)

EU-Type Examination Certificate no.

TPS 22 ATEX 102136 0013 X Rev. 01

File no.:	Description:	Pages:	Rev:	Date:
EX-XXXW-AYZ	A assembly	1	A0	2022-03-16
EX-XXXW-AYZ-023	A-PSCH	1	A0	2020-06-09
EX-XXXW-A2YZ	A2 Assembly	1	A0	2022-03-16
EX-XXXW-A2YZ-015	A2-PSCH	1	A0	2020-06-09
EX-XXXW-A3YZ	A3 Assembly	1	A0	2022-03-16
EX-XXXW-A3YZ-027	A3 PSCH	1	A0	2022-03-16
EX-XXXW-A4YZ	A4 Assembly	1	A0	2022-03-16
EX-XXXW-A4YZ-012	A4 PSCH	1	A0	2020-06-09
EX-XXXW-BYZ	B Assembly	1	A0	2022-03-15
EX-XXXW-BYZ-030	B-PCSH(No sensor)	1	A0	2022-03-06
EX-XXXW-B2YZ	B2 Assembly	1	A0	2022-03-15
EX-XXXW-B2YZ-030	B-PCSH(No sensor)	1	A0	2022-03-06
EX-XXXW-B3YZ	B3 Assembly	1	A0	2022-03-15
EX-XXXW-B3YZ-027	B3-PSCH(No sensor)	1	A0	2020-06-20
EX-XXXW-B4YZ	B4 Assembly	1	A0	2022-03-15
EX-XXXW-B4YZ-012	A4-PSCH	1	A0	2020-06-20
EX-XXXW-B5YZ-030	B-PSCH(no sensor)	1	A0	2022-03-06
FM-ED-SOP-015	Standard operating procedure(Routine test)	1	A2	2022-03-29
FM20220421A	EI-1184 encapsulation process	1	A	2022-03-06
EX-XXXW-A2YZ-012	Name plate	1	A/0	2022-12-22
FM20220312A	model A installation instructions	8	A	2022-12-22
FM20191217001B	model B installation instructions	8	A	2022-12-22
FM20230109A	Ddeclaration of conformity (Draft)	1	draft	2023-01-09

A copy of the full documentation is kept confidentially at TÜV SÜD.

Page 5 / 6

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Doc. Name: Temp-ExNDG-TPS-FU-Type-Cert-Rev. 04

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 CERTIFICATE ◆ CERTIFICADO ◆ CERTIFIKAT ◆ СЕРТИФИКАТ ◆ 認證證書 ◆ ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFIKAT ◆ СЕРТИФИКАТ ◆ 認證證書 ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFIKAT ◆ СЕРТИФИКАТ ◆ 認證證書 ◆

A4 / 07.17

Schedule



Product Service

(13)

EU-Type Examination Certificate no.

(14)

TPS 22 ATEX 102136 0013 X Rev. 01

(17) Special conditions for safe use:

1. The relation between applicable ambient temperature, temperature class, maximum temperature and maximum input power see table 1.
2. Blanking element and external cable gland are separate certified in compliance with ATEX EU-Type examination. It cannot be replaced or repaired by the end-user. Contact the manufacturer in case of damage or repair.
3. The installation must be in accordance with the requirements of EN 60079-14: latest version or according a National equivalent standard, valid at the location of installation.
4. The cable shall be selected and installed by the end user, the withstand temperature of the cable shall be not less than 105°C.
5. All special conditions of the separately products must be observed.

(18) Essential health and safety requirements:

Assured by compliance with standards set out in (9).

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Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 102136 0017 Rev. 01

Doc. Name: Temp-ExNBG-TPS-EU-Type-Cert-Rev. 01

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TÜV®



EU Type Examination Certificate CML 20ATEX1279X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **LED High Bay EX-***W C***D****
- 3 Manufacturer **DongGuan Pan American Electronics Co., Ltd**
- 4 Address **No. 175 BeiWang Road, Zhongtang Town, DongGuan City, GuangDong Province, China P.O : 523227**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

- 10 The equipment shall be marked with the following:



II 2 G D

Ex db IIB T6...T3 Gb

Ex tb IIIC T80°C...T195°C Db

IP66

Ta= -40°C to +**°C

- * **Refer to Certificate Annex for Temperature Classification and Ambient Temperature Range of the individual models.**

S. Roumbedakis
Technical Manager



11 Description

The LED High Bay EX-***W C***D** are luminaires that provide “db” and “tb” explosion protection. They include three versions with different power supplies, being: Driver power supply; IC power supply; DC power supply. The material of the enclosure is cast aluminium.

The Driver power supply version consists of two enclosures. One enclosure contains the LED light assembly, and the other contains terminals and an LED driver. The lamp cover is fitted with toughened glass cemented to the lamp enclosure cover and secured by a lamp enclosure heat sink, gasket and screws. An optional Polycarbonate spherical cover, an optional metal cover and an optional reflector ‘A’ or ‘B’ can be fixed on the light enclosure. One cable entry is provided in the driver enclosure for connection of suitably certified cable entry devices.

The versions with the IC power supply and the DC power supply comprise only one flameproof/dust protected enclosure. This enclosure contains the LED light assembly.

The temperature classification is as follows:

Luminaires Model	Rated power	Ambient Temp.	Temperature classification	Max surface Temp
EX-XXXW CYZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW CYZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW C2YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T6/T5	T80/T95°C
EX-XXXW C2YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C2YZD-D	12-48VDC	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW C3YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD-D	12-48VDC	Ta≤+80°C	T3	T195°C

Nomenclature:

EX-***W * * * D * *
1 2 3 4 5 6

- 1 : Wattage (C2: 10~80W, C: 10~180W, C3: 10~280W)
- 2 : Product code (C2, C and C3)
- 3 : Dimmable option (D denotes dimmable, N denotes Non-dimmable)
- 4 : Color temperature (30, 40, 50, 55, 65 denotes 3000K to 6500K)
- 5 : Beam angle (D15, D20, D25...D120 denotes 15 degree to 120 degree)
- 6 : Blank for power supply, I for IC power supply, D for DC power supply (Optional)



CML 20ATEX1279X
Issue 0

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	21 Dec 2020	R13375A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. A copy of the certificates and instructions shall be provided as part of the user's instructions manual of the equipment.
- ii. Each terminal compartment and light source compartment shall be subjected to a routine overpressure test of at least 5 bar (0.5 MPa) and 10 bar (1 MPa) respectively, as required by Clause 16.1 of EN 60079-1:2014. There shall be no damage, permanent deformation, or leakage other than through flamepaths.
- iii. The temperature at the entry and branching points may reach or exceed 70°C and 85°C respectively. Information regarding the selection of suitable cabling and cable entry devices shall be provided to the end user.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. Only suitably certified cable entry devices or plugs shall be fitted, noting the service temperature range of at least -40°C to +135°C. The flameproof joints of the equipment shall not be repaired. Contact the manufacturer of the equipment for information.
- ii. Potential electrostatic charging hazard – see instructions. Earthing connections shall be made in accordance with recognised hazardous area standards, e.g. EN 60079-14 and local legislation.
- iii. The Ex-***W* LED high bays shall only be commissioned, operated, and maintained in accordance with the manufacturer's Instructions, User Manual, and general electrical safety standards; EN 60079-14.

Certificate Annex

Certificate Number CML 20ATEX1279X
Equipment LED High Bay EX-***W C***D**
Manufacturer DongGuan Pan American Electronics Co., Ltd



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
EX-XXXW-C2YZ-A	1 of 76	A0	21 Dec 2020	C2 Assembly
EX-XXXW-C2YZ-B	2 of 76	A0	21 Dec 2020	C2 Assembly
EX-XXXW-C2YZ-001	3 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-C2YZ-002(B)	5 of 76	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-C2YZ-002	4 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-C2YZ-003	6 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-C2YZ-004	7 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-C2YZ-005	8 of 76	A0	21 Dec 2020	U support bracket
EX-XXXW-C2YZ-006	9 of 76	A0	21 Dec 2020	Flat glass
EX-XXXW-C2YZ-007	10 of 76	A0	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-C2YZ-008	11 of 76	A0	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-C2YZ-010	21 of 76	A0	21 Dec 2020	Reflector A
EX-XXXW-C2YZ-011	22 of 76	A0	21 Dec 2020	Reflector B
EX-XXXW-C2YZ-012	23 of 76	A0	21 Dec 2020	LED PCB
EX-XXXW-C2YZ-013	24 of 76	A0	21 Dec 2020	Sch of C2 Series
EX-XXXW-C2YZ-015	29 of 76	A0	21 Dec 2020	Flexible cable
EX-XXXW-C2YZ-017	27 of 76	A0	21 Dec 2020	IC PCBA
EX-XXXW-C2YZ-018	28 of 76	A0	21 Dec 2020	DC PCBA
EX-XXXW-C2YZ-023	25 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-C2YZ-024	26 of 76	A	21 Dec 2020	Nameplate
EX-XXXW-FYZ-004	19 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-FYZ-005	20 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-CYZ-A	30 of 76	A	21 Dec 2020	C Assembly
EX-XXXW-CYZ-B	31 of 76	A	21 Dec 2020	C Assembly
EX-XXXW-CYZ-001	32 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-CYZ-002(B)	34 of 76	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-CYZ-002	33 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-CYZ-003	35 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-CYZ-004	36 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-CYZ-005	37 of 76	A	21 Dec 2020	Flat glass

Certificate Annex

Certificate Number CML 20ATEX1279X
Equipment LED High Bay EX-***W C***D**
Manufacturer DongGuan Pan American Electronics Co., Ltd



EX-XXXW-CYZ-006	52 of 76	A0	21 Dec 2020	Support base
EX-XXXW-CYZ-007	37 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-CYZ-008	38 of 76	A	21 Dec 2020	U support bracket
EX-XXXW-CYZ-010	39 of 76	A	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-CYZ-011	43 of 76	A	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-CYZ-012	53 of 76	A0	21 Dec 2020	WATER-PROOF-RING-C
EX-XXXW-CYZ-013	40 of 76	A0	21 Dec 2020	WATER-PROOF-RING-D
EX-XXXW-CYZ-014	41 of 76	A	21 Dec 2020	Reflector A
EX-XXXW-CYZ-015	42 of 76	A	21 Dec 2020	Reflector B
EX-XXXW-CYZ-017	44 of 76	A	21 Dec 2020	LED PCB
EX-XXXW-CYZ-019	45 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-CYZ-020	46 of 76	A0	21 Dec 2020	Sch of C2 Series
EX-XXXW-CYZ-021	50 of 76	A	21 Dec 2020	DC PCBA
EX-XXXW-CYZ-022	51 of 76	A	21 Dec 2020	IC PCBA
EX-XXXW-CYZ-023	47 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-CYZ-024	49 of 76	A	21 Dec 2020	Nameplate
EX-XXXW-C3YZ-A	55 of 76	A	21 Dec 2020	C3 Assembly
EX-XXXW-C3YZ-B	56 of 76	A	21 Dec 2020	C3 Assembly
EX-XXXW-C3YZ-001(B)	58 of 77	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-C3YZ-001	57 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-C3YZ-002	59 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-C3YZ-003	60 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-C3YZ-004	61 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-C3YZ-005	62 of 76	A0	21 Dec 2020	U support bracket
EX-XXXW-C3YZ-007	63 of 76	A0	21 Dec 2020	Flat glass
EX-XXXW-C3YZ-008	64 of 76	A0	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-C3YZ-009	65 of 76	A0	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-C3YZ-011	67 of 76	A0	21 Dec 2020	LED PCB
EX-XXXW-C3YZ-012	68 of 76	A0	21 Dec 2020	Sch of C3 Series
EX-XXXW-C3YZ-013	69 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-C3YZ-014	70 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-C3YZ-015	71 of 76	A0	21 Dec 2020	Reflector A
EX-XXXW-C3YZ-016	72 of 76	A0	21 Dec 2020	Reflector B
EX-XXXW-C3YZ-017	75 of 76	A0	21 Dec 2020	DC PBCA

Certificate Annex

Certificate Number CML 20ATEX1279X
Equipment LED High Bay EX-***W C***D**
Manufacturer DongGuan Pan American Electronics Co., Ltd



EX-XXXW-C3YZ-018	76 of 76	A0	21 Dec 2020	IC PBCA
EX-XXXW-C3YZ-019	73 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-C3YZ-022	74 of 76	A0	21 Dec 2020	Nameplate
EX-XXXW-A2YZ-011	14 of 76	A0	21 Dec 2020	Cable gland
EX-XXXW-AYZ-013	15 of 76	A0	21 Dec 2020	Grounding mark
EX-XXXW-AYZ-015	17 of 77	A0	21 Dec 2020	Cable connector
EX-XXXW-AYZ-016	16 of 77	A0	21 Dec 2020	Grounding Cable
EX-XXXW-AYZ-017	13 of 76	A0	21 Dec 2020	Flexible cable
EX-XXXW-BYZ-026	18 of 76	A0	21 Dec 2020	Lens



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

Certificate No.: **IECEx CML 20.0163X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2020-12-22
Applicant: **EPC PRODUCT LLC.**
2369 E. Pacifica PL. Rancho Dominguez, CA 90220
United States of America
Equipment: **LED High Bay EX-***W C***D****
Optional accessory:
Type of Protection: **Flameproof Ex "db", Protection by Enclosure Ex "tb"**
Marking: Ex db IIB T6...T3 Gb
Ex tb IIIC T80°C...T195°C Db
IP66
Ta= -40°C to +**°C
*Refer to Certificate Annex for Temperature Classification and Ambient Temperature Range of the individual models.

Approved for issue on behalf of the IECEx
Certification Body:

S. Roubedakis

Position:

Technical Manager

Signature:
(for printed version)

Date:

2020-12-22

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 or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





IECEx Certificate of Conformity

Certificate No.: **IECEx CML 20.0163X**

Page 2 of 3

Date of issue: 2020-12-22

Issue No: 0

Manufacturer: **Dongguan Pan American Electronics Co., Ltd.**
No.175 BeiWang Road
Zhongtang Town
DongGuan City, GuangDong Province 523227
China

Additional
manufacturing
locations:

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 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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:

[GB/CML/ExTR20.0247/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/03](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx CML 20.0163X**

Page 3 of 3

Date of issue: 2020-12-22

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Ex-***W* LED High Bays are luminaires that provide "db" and "tb" explosion protection. They include three versions with different power supplies, being: Driver power supply; IC power supply; DC power supply. The material of the enclosure is cast aluminium.

See Certificate Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Certificate Annex

Annex:

[IECEx CML 20.0163X Annex.pdf](#)

Annexe to: IECEx CML 20.0163X Issue 0
Applicant: EPC PRODUCT LLC
Apparatus: LED High Bay EX-***W C***D**



Description

The LED High Bay EX-***W C***D** are luminaires that provide “db” and “tb” explosion protection. They include three versions with different power supplies, being: Driver power supply; IC power supply; DC power supply. The material of the enclosure is cast aluminium.

The Driver power supply version consists of two enclosures. One enclosure contains the LED light assembly, and the other contains terminals and an LED driver. The lamp cover is fitted with toughened glass cemented to the lamp enclosure cover and secured by a lamp enclosure heat sink, gasket and screws. An optional Polycarbonate spherical cover, an optional metal cover and an optional reflector ‘A’ or ‘B’ can be fixed on the light enclosure. One cable entry is provided in the driver enclosure for connection of suitably certified cable entry devices.

The versions with the IC power supply and the DC power supply comprise only one flameproof/dust protected enclosure. This enclosure contains the LED light assembly.

The temperature classification is as follows:

Luminaires Model	Rated power	Ambient Temp.	Temperature classification	Max surface Temp
EX-XXXW CYZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW CYZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW C2YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T6/T5	T80/T95°C
EX-XXXW C2YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C2YZD-D	12-48VDC	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW C3YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD-D	12-48VDC	Ta≤+80°C	T3	T195°C

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 E info@cmllex.com

www.cmllex.com

Company Reg No. 8554022 VAT No. GB163023642





Nomenclature:

EX-***W _ _ _ _ D* _
1 2 3 4 5 6

- 1 : Wattage (C2: 10~80W, C: 10~180W, C3: 10~280W)
- 2 : Product code (C2, C and C3)
- 3 : Dimmable option (D denotes dimmable, N denotes Non-dimmable)
- 4 : Colour temperature (30, 40, 50, 55, 65 denotes 3000K to 6500K)
- 5 : Beam angle (D15, D20, D25...D120 denotes 15 degree to 120 degree)
- 6 : Blank for power supply, I for IC power supply, D for DC power supply (Optional)

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. A copy of the certificates and instructions shall be provided as part of the user's instructions manual of the equipment.
- ii. Each terminal compartment and light source compartment shall be subjected to a routine overpressure test of at least 5 bar (0.5 MPa) and 10 bar (1 MPa) respectively, as required by Clause 16.1 of IEC 60079-1:2014. There shall be no damage, permanent deformation, or leakage other than through flamepaths.
- iii. The temperature at the entry and branching points may reach or exceed 70°C and 85°C respectively. Information regarding the selection of suitable cabling and cable entry devices shall be provided to the end user.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. Only suitably certified cable entry devices or plugs shall be fitted, noting the service temperature range of at least -40°C to +135°C. The flameproof joints of the equipment shall not be repaired. Contact the manufacturer of the equipment for information.
- ii. Potential electrostatic charging hazard – see instructions. Earthing connections shall be made in accordance with recognised hazardous area standards, e.g. EN 60079-14 and local legislation.
- iii. The Ex-***W* LED high bays shall only be commissioned, operated, and maintained in accordance with the manufacturer's Instructions, User Manual, and general electrical safety standards; EN 60079-14.



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

Certificate No.: **IECEx TPS 20.0012X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2020-07-01
Applicant: **Dongguan Pan American Electronics Co., Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China
Equipment: **Explosion-proof cable gland**
Optional accessory: EX-QM series
Type of Protection: **Flameproof "db", Increased safety "eb", Dust Ignition Protection "tb"**
Marking: Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx
Certification Body:

Frank Zhu, MSc.

Position:

Technical Certifier

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 www.iecex.com or use of this QR Code.



Certificate issued by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany



Product Service



IECEx Certificate of Conformity

Certificate No.: **IECEx TPS 20.0012X**

Page 2 of 3

Date of issue: 2020-07-01

Issue No: 0

Manufacturer: **Dongguan Pan American Electronics Co., Ltd.**
No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan City, GuangDong Province 523227
China

Additional
manufacturing
locations:

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 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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:

[GB/CML/ExTR20.0120/00](#)

Quality Assessment Report:

[CN/NEP/QAR19.0007/02](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx TPS 20.0012X**

Page 3 of 3

Date of issue: 2020-07-01

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The EX-QM series Explosion-proof cable glands are intended for use in Group II Explosive atmospheres classified as Gas Zone 1 & Zone 2, Gas group IIC and for Dust Zone 21 & Zone 22, Dust group IIIC.

The EX-QM01-A1, EX-QM12-A1 series Explosion-proof cable glands are protected by increased safety "eb" and protection by enclosure "tb", other type of cable glands are protected by flameproof enclosure "db", increased safety "eb" and protection by enclosure "tb". The cable glands are made of brass, stainless or carbon steel and include M-, NPT- and G- threads. They can be used with armoured or unarmoured cable.

The G-thread types cannot be used for protection type Ex db.

Model difference:

Model: EX-QM01-A1, EX-QM03-C1K, EX-QM04-B1K, EX-QM05-C1K, EX-QM06-B1K, EX-QM10-B1, EX-QM12-A1, EX-QM13-B1T, EX-QM18-C1, EX-QM21-C1K, EX-QM22-B1K.

Entry thread: Metric, NPT or G (G thread only for Ex eb, tb).

Size: M16 to M90 (NPT 3/8 inch to NPT 3 inches, G 3/8 inch to G 3 inches)

Technical data:

IP66/IP68 (IP66 according to IEC 60079 series, IP68 according to IEC 60529)

Warning label:

N/A

Routine tests:

None.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The ambient temperature: -50°C to +80°C (This has to be seen as the maximum service temperature at the point of entry of the cable gland (Ts, Clause 5.2 IEC 60079-0)).
2. The cable gland for unarmoured cable shall only be used for fixed installations. The installer shall ensure that the cable is effectively clamped to prevent pulling and twisting after installation.
3. Degree of protection IP66 and IP68 (1m, 1h) will be safeguarded only when sealing and cable entry fittings are properly fitted. The manufacturer's instructions must be followed.
4. "G"- threads are not designed for used for flameproof enclosure "db".
5. Clamping tests are carried out with values reduced to 25%. Users shall provide additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
6. The installation instructions for the cable glands with filling compound have to be carefully observed during installation, they are provided in the user manual.

Annex:

[Annex to CoC IECEx TPS 20.0012X_1.pdf](#)



IECEx Certificate of Conformity



Product Service

Annex to certificate: IECEx TPS 20.0012X
Applicant: Dongguan Pan American Electronics Co., Ltd.
 No.31 BeiWang Road, WuJiaChong, Zhongtang Town, DongGuan
 City, GuangDong Province 523227, China
Apparatus: Explosion-proof cable glands
Type(s) EX-QM series

Model designation:

<u>EX – QM</u>	<u>*</u>	<u>-</u>	<u>*</u>	<u>*</u>	<u>-</u>	<u>*</u>
1	2	3	4	5	6	
Position 1:	=	Company code				
Position 2:	=	Product code				
Position 3:	=	Design code: 1, 10, 12: one single seal, unarmored, no filling compound 3, 5, 21: one single seal, armored, filling compound 4, 6, 22: two seals, armored 13: two seals, unarmored, no filling compound 18: one single seal, filling compound				
Position 4:	=	Series: A: increased safety; B: flameproof; C: flameproof + packing				
Position 5:	=	Type: 1: cable introduction; 1K: introduction of armored cable; 1T: double sealed cable introduction				
Position 6:	=	Inlet size				

This certificate covers the following types:

Gland size	Entry thread size		
	Metric	NPT	G (Not for Ex d)
16	M16 × 1.5	NPT3/8"	G3/8"
20	M20 × 1.5	NPT1/2"	G1/2"
25	M25 × 1.5	NPT3/4"	G3/4"
32	M32 × 1.5	NPT1"	G1"
40	M40 × 1.5	NPT1-1/4"	G1-1/4"
50	M50 × 1.5	NPT1-1/2"	G1-1/2"
63	M63 × 1.5	NPT2"	G2"
75	M75 × 1.5	NPT2-1/2"	G2-1/2"
90	M90 × 1.5	NPT3"	G3"



Zertifizierungsvertrag

Grundlage für die Zertifikatserteilung ist die Prüf- und Zertifizierungsordnung von TÜV SÜD Product Service.

Mit Erhalt des Zertifikates erkennt der Zertifikatsinhaber die jeweils gültige Fassung der Prüf- und Zertifizierungsordnung an (www.tuev-sued.de/ps_regulations) und wird somit Partner im Zertifizierungssystem von TÜV SÜD Product Service.

Prinzipielle Voraussetzung für die Gültigkeit des Zertifikates:

- Gültigkeit der zitierten normativen Prüfgrundlage(n) ist gegeben und zusätzlich bei Zertifikaten mit Berechtigung zur Verwendung eines Prüfzeichens bzw. bei Zertifikaten für QM-Systeme:
- Voraussetzungen für vorschriftsmäßige Fertigung werden eingehalten.
- Die Fertigungs- bzw. Betriebsstätten werden regelmäßig überwacht.

Certification contract

Certification is based on the TÜV SÜD Product Service Testing and Certification Regulations. On receipt of the certificate the certificate holder agrees to the current version of the Testing and Certification Regulations (www.tuv-sud.com/ps_regulations) and thus becomes partner in the TÜV SÜD Product Service Certification System.

Requirements for the validity of the certificate in principle:

- Validity of the quoted test standard(s) In addition, for certificates with the right to use a certification mark and for QM certificates:
- Conditions for an adequate manufacturing are maintained
- Regular surveillance of the facility is performed

认证合约

认证基于 TÜV SÜD 产品服务《测试及认证准则》。获得证书即表明证书持有者接受当前版本的《测试及认证准则》(见 www.tuv-sud.com/ps_regulations) 并成为 TÜV SÜD 产品服务认证系统内的合作伙伴。

维持证书有效性的原则要求：

- 认证所依据标准的有效性
- 此外，对于授权可使用认证标志的证书和质量管理体系证书：
- 保持充分的生产条件
 - 生产场地通过定期的监督

認証契約

認証は TÜV SÜD Product Service の試験認証規約に基づく。認証書保持者は認証書を受領することにより最新の試験認証規約(www.tuv-sud.com/ps_regulations)に同意したものとする。その結果、TÜV SÜD Product Service 認証システムのパートナーとなる。

認証書の有効性に関する原則的な要求事項

- 引用している試験規格が有効である
- さらに認証マークの使用を許諾された認証書や品質マネジメント認証書は：
- 適切な製造の条件を維持している
 - 定期的な工場監査を実施している

Contrato de certificação

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Requisitos para a validade do certificado (em princípio):

- Validade da(s) norma(s) de ensaio(s) referenciada(s).
- Adicionalmente, para os certificados com o direito ao uso da marca de certificação e para certificados de SG:
- Condições de fabricação adequada estão mantidas.
 - Auditoria de monitoração realizada regularmente.

Zertifizierungsvertrag

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Prinzipielle Voraussetzung für die Gültigkeit des Zertifikates:

- Gültigkeit der zitierten normativen Prüfgrundlage(n) ist gegeben und zusätzlich bei Zertifikaten mit Berechtigung zur Verwendung eines Prüfzeichens bzw. bei Zertifikaten für QM-Systeme:
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- Die Fertigungs- bzw. Betriebsstätten werden regelmäßig überwacht.

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 - 生产场地通过定期的监督

認證契約

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認證書の有効性に関する原則的な要求事項

- 引用している試験規格が有効である
- さらに認証マークの使用を許諾された認証書や品質マネジメント認証書は：
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- Condições de fabricação adequada estão mantidas.
 - Auditoria de monitoração realizada regularmente.



(13)
(14)

Schedule
EU-Type Examination Certificate no.
TPS 20 ATEX 102136 0001 X Rev. 00

Technical data:

IP66/IP68 (IP66 according to EN 60079 series, IP68 according to EN 60529)

Warning label:

N/A

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.
 See also (17) Special conditions for safe use.

(16) Test report(s): 88.500.20.038.01

Routine tests:

None.

Document List:

File no.:	Description:	Pages:	Rev:	Date:
EX-MP-TY-00	Nameplate	1	0-1	2019-03-08
EX-QM01-A1	EX-QM01-A1 Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.100.409.1-9	EX-QM01-A1 Entry thread body	1	0-1	2019-03-08
EX-QM03-C1K	EX-QM03-C1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.300.400.1-8	EX-QM03-C1K Entry thread body	1	0-1	2019-03-08
EX-QM04-B1K	EX-QM04-B1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.400.130.1-8	EX-QM04-B1K Seal-ring	1	0-1	2019-03-08
EX-QM05-C1K	EX-QM05-C1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.500.401.1-9	EX-QM05-C1K Entry Thread body	1	0-1	2019-03-08
EX-QM06-B1K	EX-QM06-B1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.600.402.1-9	EX-QM06-B1K Entry Thread body	1	0-1	2019-03-08
EX-QM10-B1	EX-QM10-B1 Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.010.403.1-9	EX-QM10-B1 Entry Thread body	1	0-1	2019-03-08
EX-QM12-A1	EX-QM12-A1 Explosion-Proof Cable Glands	1	0-1	2019-03-08

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 102136 0001 Rev. 00



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- 引用している試験規格が有効である
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Requisitos para a validade do certificado (em princípio):

- Validade da(s) norma(s) de ensaio(s) referenciada(s).
- Adicionalmente, para os certificados com o direito ao uso da marca de certificação e para certificados de SG:
- Condições de fabricação adequada estão mantidas.
 - Auditoria de monitoração realizada regularmente.



(13)
(14)

Schedule

EU-Type Examination Certificate no.
TPS 20 ATEX 102136 0001 X Rev. 00

File no.:	Description:	Pages:	Rev:	Date:
8QM.012.404.1-8	EX-QM12-A1 Entry Thread body	1	0-1	2019-03-08
EX-QM13-B1T	EX-QM13-B1T Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.013.202.1-7	EX-QM13-B1T Middle body	1	0-1	2019-03-08
EX-QM18-C1	EX-QM18-C1 Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.018.405.1-8	EX-QM18-C1 Entry Thread body	1	0-1	2019-03-08
EX-QM21-C1K	EX-QM21-C1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.012.407.1-9	EX-QM21-C1K Entry Thread body	1	0-1	2019-03-08
EX-QM22-B1K	EX-QM22-B1K Explosion-Proof Cable Glands	1	0-1	2019-03-08
8QM.022.408.1-9	EX-QM22-B1K Entry Thread body	1	0-1	2019-03-08
FM00.02	EU Declaration of Conformity (draft)	1.0	2	2020-03-16
-	Instruction Manual	1.0	20	2020-03-23
-	LETTER OF AGREEMENT	1.0	2	2020-04-14

A copy of the full documentation is kept confidentially at TÜV SÜD.

(17)

Special conditions for safe use:

1. Maximum service temperature: -50°C to +120°C.
2. The cable gland for unarmoured cable shall only be used for fixed installations. The installer shall ensure that the cable is effectively clamped to prevent pulling and twisting after installation.
3. Degree of protection IP66 and IP68 (1m, 1h) will be safeguarded only when sealing and cable entry fittings are properly fitted. The manufacturer's instructions must be followed.
4. "G"- threads are not designed for used for flameproof enclosure "db".
5. Clamping tests are carried out with values reduced to 25%. Users shall provide additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
6. The installation instructions for the cable glands with filling compound have to be carefully observed during installation, they are provided in the user manual.

(18)

Essential health and safety requirements:

Assured by compliance with standards set out in (9).

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 102136 0001 Rev. 00



Zertifizierungsvertrag

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Mit Erhalt des Zertifikates erkennt der Zertifikatsinhaber die jeweils gültige Fassung der Prüf- und Zertifizierungsordnung an (www.tuev-sued.de/ps_regulations) und wird somit Partner im Zertifizierungssystem von TÜV SÜD Product Service.

Prinzipielle Voraussetzung für die Gültigkeit des Zertifikates:

- Gültigkeit der zitierten normativen Prüfgrundlage(n) ist gegeben und zusätzlich bei Zertifikaten mit Berechtigung zur Verwendung eines Prüfzeichens bzw. bei Zertifikaten für QM-Systeme:
- Voraussetzungen für vorschriftsmäßige Fertigung werden eingehalten.
- Die Fertigungs- bzw. Betriebsstätten werden regelmäßig überwacht.

Certification contract

Certification is based on the TÜV SÜD Product Service Testing and Certification Regulations. On receipt of the certificate the certificate holder agrees to the current version of the Testing and Certification Regulations (www.tuv-sud.com/ps_regulations) and thus becomes partner in the TÜV SÜD Product Service Certification System.

Requirements for the validity of the certificate in principle:

- Validity of the quoted test standard(s) In addition, for certificates with the right to use a certification mark and for QM certificates:
- Conditions for an adequate manufacturing are maintained
- Regular surveillance of the facility is performed

认证合约

认证基于 TÜV SÜD 产品服务《测试及认证准则》。获得证书即表明证书持有者接受当前版本的《测试及认证准则》(见 www.tuv-sud.com/ps_regulations) 并成为 TÜV SÜD 产品服务认证系统内的合作伙伴。

维持证书有效性的原则要求：

- 认证所依据标准的有效性
- 此外，对于授权可使用认证标志的证书和质量管理体系证书：
- 保持充分的生产条件
 - 生产场地通过定期的监督

認證契約

認證は TÜV SÜD Product Service の試験認証規約に基づく。認証書保持者は認証書を受領することにより最新の試験認証規約(www.tuv-sud.com/ps_regulations)に同意したものとする。その結果、TÜV SÜD Product Service 認証システムのパートナーとなる。

認證書の有効性に関する原則的な要求事項

- 引用している試験規格が有効である
- さらに認証マークの使用を許諾された認証書や品質マネジメント認証書は：
- 適切な製造の条件を維持している
 - 定期的な工場監査を実施している

Contrato de certificação

A certificação se baseia nos Regulamentos de Testes e Certificação do Grupo TÜV SÜD. Ao receber o certificado, o Fornecedor, titular do certificado concorda com a versão atual dos Regulamentos de Testes e Certificação do Grupo TÜV SÜD (www.tuv-sud.com/ps_regulations) e assim, torna-se parceiro no Sistema de Certificação de Produtos e Serviços TÜV SÜD.

Requisitos para a validade do certificado (em princípio):

- Validade da(s) norma(s) de ensaio(s) referenciada(s).
- Adicionalmente, para os certificados com o direito ao uso da marca de certificação e para certificados de SG:
- Condições de fabricação adequada estão mantidas.
 - Auditoria de monitoração realizada regularmente.



EU Type Examination Certificate CML 22ATEX1162X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Control Unit Systems**
- 3 Manufacturer **Dongguan Pan American Electronics Co., Ltd**
- 4 Address **No.175 BeiWang Road,
Zhongtang Town, DongGuan City,
GuangDong Province 523227,
China**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

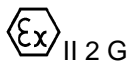
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

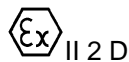
EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex db IIC T6 Gb

Ta = -60 °C to +60 °C



Ex tb IIIC T80°C Db

Ta = -60 °C to +60 °C





**CML 22ATEX1162X
Issue 0**

11 Description

The equipment consists of an aluminium enclosure cover, aluminium enclosure base, shaft and shaft bushings. Mounted onto the cover of the enclosure are various switches, indicators, meters or push buttons. The enclosure is made of aluminium alloy, ADC12, with a sealing ring between the enclosure cover and the enclosure base. The glass of the instrument is cemented into the wall of the enclosure and secured with glass plate, supporting ring and fasteners.

The equipment uses threaded entries which must be used with suitably certified cable glands on the enclosure base. Additionally, suitably certified threaded blanking elements can be installed which are included as part of the complete equipment.

The equipment is manufactured as one Ex d enclosure which consists of up to three explosion-proof cavity types: 3 units, 2 units and single unit. The enclosure cover is only intended to be opened for installation and maintenance purpose.

Ratings:

Signalling Lamps:

Maximum supply voltage:	240 V
Maximum dissipated power:	3 W

Devices:

Maximum supply voltage:	660 V
Maximum current:	25 A

Measuring Instruments:

Maximum supply voltage:	660 V
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Nomenclature:

EX-ZA 65 - A (4) B (6) D (8) K (10) (11) (12) - (14)
(1) (2) (3) (5) (7) (9)

Where

- (1) = Explosion-proof Control Unit Systems
- (2) = Design Sequence No.
- (3) = Push button (optional)
- (4) = Numbers of push button
- (5) = Meters (optional)
- (6) = Numbers of meters
- (7) = Indicator (optional)
- (8) = Numbers of indicator
- (9) = Switch (optional)
- (10) = Numbers of switch
- (11) = Switch type: B = power on/off switch; D = is two-way switches; E = change over switches.
- (12) = Switch number of contacts: 1, 2, 3, 4
- (13) = Shape of enclosure (1set):
A = rounded; B = square



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EX-ZM - (2) (3) (4) (5)

(1)

Where

- (1) Switch series for explosion-proof
- (2) Shape of enclosure:
A = round; B = square.
- (3) Rated current by the A switch (optional)
- (4) Switch type:
B = power on/off switch; D = 2-way switch; E = changeover
- (5) Number of contacts: 1, 2, 3, 4

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	27 Jul 2022	R15163A/00	for Prime Certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each complete enclosure shall withstand a routine overpressure test according to EN 60079-1 clause 16.1 at a test pressure of 2.37 MPa.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. The minimum yield stress of fasteners shall be 450 MPa.
- ii. Potential electrostatic charging hazard - see instructions.
- iii. The flameproof joints exceed the minimum lengths as detailed in EN 60079-1, tables 2 and 3 and shall not be repaired by the end user. Contact the original manufacturer for the dimensions of flameproof joints.
- iv. Suitably certified, Ex db and Ex tb cable glands and blanking elements must be used.

Certificate Annex

Certificate Number CML 22ATEX1162X
Equipment Control Unit Systems
Manufacturer Dongguan Pan American Electronics Co., Ltd



The following documents describe the equipment or component defined in this certificate:

Issue 0

#	Drawing No	Sheets	Rev	Approved date	Title
01	EX-ZM-A-000	1 of 1	A0	27 Jul 2022	ZM INSTALLATION SWITCH Assembly Graph
02	EX-ZM-B-000	1 of 1	A0	27 Jul 2022	ZM INSTALLATION SWITCH Assembly Graph
03	EX-ZA65-A-000	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Assembly Graph
04	EX-ZA65-B-000	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Assembly Graph
05	EX-ZA65-2-000	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Assembly Graph
06	EX-ZA65-3-000	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Assembly Graph
07	EX-ZA65-009.1~8	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
08	EX-ZA65-010.1~4	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
09	EX-ZA65-014	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
10	EX-ZA65-015	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
11	EX-ZA65-008.1~2	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
12	EX-ZA65-004	1 of 1	A0	27 Jul 2022	ZA65-B Glass plate
13	EX-ZA65-005	1 of 1	A0	27 Jul 2022	ZA65 supporting ring
14	EX-ZA65-006	1 of 1	A0	27 Jul 2022	ZA65 instrument mounting panel
15	EX-ZA65-012	1 of 1	A0	27 Jul 2022	Gasket
16	EX-ZA65-011	1 of 1	A0	27 Jul 2022	ZA65 Control Unit Systems Part combination drawing
17	EX-HD51-A-004.X	1 of 1	A0	27 Jul 2022	Universal Sealing Ring
18	EX-ZA65-016	1 of 1	A0	27 Jul 2022	Stickers
19	EX-ZM-003.1.1~3	1 of 1	A0	27 Jul 2022	ZM communal enclosure cover
20	EX-ZM-003.2.1~2	1 of 1	A0	27 Jul 2022	ZM communal enclosure cover

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21	EX-ZM-003.3.1~2	1 of 1	A0	27 Jul 2022	ZM communal enclosure cover
22	EX-ZM-004	1 of 1	A0	27 Jul 2022	ZM shaft sleeve
23	EX-ZM-005	1 of 1	A0	27 Jul 2022	ZM shaft
24	EX-ZM-006	1 of 1	A0	27 Jul 2022	ZM lever
25	EX-ZA65-007	1 of 1	A0	27 Jul 2022	Nameplate ATEX
26	EX-ZA65-013	1 of 1	A0	27 Jul 2022	Nameplate ATEX
27	EX-ZM-A-001	1 of 1	A0	27 Jul 2022	EX-ZM-A Nameplate ATEX
28	EX-ZM-B-001	1 of 1	A0	27 Jul 2022	EX-ZM-B Nameplate ATEX
29	EX-GJ-S001.X	1 of 1	A0	27 Jul 2022	Headless screw plug
30	EX-GJ-S002.X	1 of 1	A0	27 Jul 2022	Round head screw plug
31	EX-JD-S001.X	1 of 1	A0	27 Jul 2022	Hexagonal Screw with Grounding Signal
32	EX-ZA65-001.1~4	1 of 1	A0	27 Jul 2022	ZA65 enclosure base 2 unit
33	EX-ZA65-002.1~4	1 of 1	A0	27 Jul 2022	ZA65 enclosure base 3 unit
34	EX-ZA65-003	1 of 1	A0	27 Jul 2022	ZA65-B enclosure cover
35	EX-ZM-001.1~4	1 of 1	A0	27 Jul 2022	ZM communal square enclosure base
36	EX-ZM-002.1~4	1 of 1	A0	27 Jul 2022	ZM communal enclosure base
37	EX-A-C-8-001	1 of 1	A0	27 Jul 2022	Pedestal (a, b, c)
38	EX-A-C-8-002	1 of 1	A0	27 Jul 2022	Face-plate
39	EX-A-C-8-003	1 of 1	A0	27 Jul 2022	Sealing-sleeve (a, b, c)
40	EX-A-C-8-004	1 of 1	A0	27 Jul 2022	Spring (a, b, c)
41	EX-A-C-8-005	1 of 1	A0	27 Jul 2022	Press ring
42	EX-A-C-8-006	1 of 1	A0	27 Jul 2022	Shell (a, b, c)
43	EX-A-C-8-007	1 of 1	A0	27 Jul 2022	End-plate (a, b, c)
44	EX-A-C-5-001	1 of 1	A0	27 Jul 2022	Spring-return pushbutton
45	EX-A-D-5-001	1 of 1	A0	27 Jul 2022	Mushroom stay-put emergency pushbutton
46	EX-A-E-5-001	1 of 1	A0	27 Jul 2022	Key-operated mushroom stay-put emergency pushbutton
47	EX-A-F-5-001	1 of 1	A0	27 Jul 2022	Mushroom turn-to-release emergency pushbutton
48	EX-A-G-5-001	1 of 1	A0	27 Jul 2022	Key-operated mushroom turn-to-release emergency pushbutton

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49	EX-A-H-5-001	1 of 1	A0	27 Jul 2022	Rotary pushbutton
50	EX-A-I-5-001	1 of 1	A0	27 Jul 2022	Key-operated pushbutton
51	EX-A-J-5-001	1 of 1	A0	27 Jul 2022	Mushroom spring-return emergency pushbutton
52	EX-A-K-5-001	1 of 1	A0	27 Jul 2022	Pushbutton with indicator
53	EX-A-P-5-001	1 of 1	A0	27 Jul 2022	Spring-return pushbutton
54	EX-D-5-001	1 of 1	A0	27 Jul 2022	Indicator
55	EX-A-D-8-001	1 of 1	A0	27 Jul 2022	Shell (D,F,J)
56	EX-A-D-8-002	1 of 1	A0	27 Jul 2022	Sealing sleeve (d,f,j)
57	EX-A-D-8-003	1 of 1	A0	27 Jul 2022	Spring (d,f)
58	EX-A-D-8-004	1 of 1	A0	27 Jul 2022	Positioning cap(d, f)
59	EX-A-D-8-005	1 of 1	A0	27 Jul 2022	End-plate (d,f,J)
60	EX-A-D-8-006	1 of 1	A0	27 Jul 2022	Button panel (d, j)
61	EX-A-D-8-007	1 of 1	A0	27 Jul 2022	Handle (d)
62	EX-A-D-8-008	1 of 1	A0	27 Jul 2022	Locating ring
63	EX-A-D-8-009	1 of 1	A0	27 Jul 2022	Push rod (d)
64	EX-A-D-8-010	1 of 1	A0	27 Jul 2022	Pedestal (d)
65	EX-A-E-8-001	1 of 1	A0	27 Jul 2022	pedestal (e, i)
66	EX-A-E-8-002	1 of 1	A0	27 Jul 2022	locked coat (e, i)
67	EX-A-E-8-003	1 of 1	A0	27 Jul 2022	fixed block
68	EX-A-E-8-004	1 of 1	A0	27 Jul 2022	Sealing sleeve (e, i)
69	EX-A-E-8-005	1 of 1	A0	27 Jul 2022	follower ring
70	EX-A-E-8-006	1 of 1	A0	27 Jul 2022	Spring(e, i)
71	EX-A-E-8-007	1 of 1	A0	27 Jul 2022	Shell (e, g, i)
72	EX-A-E-8-008	1 of 1	A0	27 Jul 2022	Button panel
73	EX-A-E-8-009	1 of 1	A0	27 Jul 2022	Handle (e)
74	EX-A-E-8-010	1 of 1	A0	27 Jul 2022	locating ring
75	EX-A-E-8-011	1 of 1	A0	27 Jul 2022	key cylinder
76	EX-A-C-5-002	1 of 1	A0	27 Jul 2022	Base Part Assembly
77	EX-A-C-5-003	1 of 1	A0	27 Jul 2022	Transmission shaft
78	EX-A-C-8-008	1 of 1	A0	27 Jul 2022	Connector
79	EX-A-C-8-009	1 of 1	A0	27 Jul 2022	Nut
80	EX-A-C-8-010	1 of 1	A0	27 Jul 2022	Shell
81	EX-A-C-8-011	1 of 1	A0	27 Jul 2022	O-Ring
82	EX-A-C-8-012	1 of 1	A0	27 Jul 2022	O-Ring

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83	EX-A-C-8-013	1 of 1	A0	27 Jul 2022	Sealing washer
84	EX-A-C-8-014	1 of 1	A0	27 Jul 2022	Spring
85	EX-A-C-8-015	1 of 1	A0	27 Jul 2022	Bushing
86	EX-A-C-8-016	1 of 1	A0	27 Jul 2022	End-plate
87	EX-A-C-8-017	1 of 1	A0	27 Jul 2022	Nameplate
88	EX-A-F-8-001	1 of 1	A0	27 Jul 2022	Pedestal (f, j)
89	EX-A-F-8-002	1 of 1	A0	27 Jul 2022	push rod (f, j)
90	EX-A-F-8-003	1 of 1	A0	27 Jul 2022	Button panel(f)
91	EX-A-F-8-004	1 of 1	A0	27 Jul 2022	Torsion spring (f)
92	EX-A-F-8-005	1 of 1	A0	27 Jul 2022	Handle (f)
93	EX-A-F-8-006	1 of 1	A0	27 Jul 2022	Fixed block (f)
94	EX-A-G-8-001	1 of 1	A0	27 Jul 2022	Pedestal (g, h)
95	EX-A-G-8-002	1 of 1	A0	27 Jul 2022	Rotating sleeve (g, h)
96	EX-A-G-8-003	1 of 1	A0	27 Jul 2022	Seal ring (g, h)
97	EX-A-G-8-004	1 of 1	A0	27 Jul 2022	Spring (g, h)
98	EX-A-G-8-005	1 of 1	A0	27 Jul 2022	Torsion spring (g, h)
99	EX-A-G-8-006	1 of 1	A0	27 Jul 2022	Locked coat (g)
100	EX-A-G-8-007	1 of 1	A0	27 Jul 2022	Rotary seat (g)
101	EX-A-G-8-008	1 of 1	A0	27 Jul 2022	Key cylinder (g)
102	EX-A-H-8-001	1 of 1	A0	27 Jul 2022	Shell (h)
103	EX-A-H-8-002	1 of 1	A0	27 Jul 2022	Rotary seat (h)
104	EX-A-H-8-003	1 of 1	A0	27 Jul 2022	Cover plate (h)
105	EX-A-H-8-004	1 of 1	A0	27 Jul 2022	Handle cover plate (h)
106	EX-A-H-8-005	1 of 1	A0	27 Jul 2022	Handle (h)
107	EX-A-I-8-001	1 of 1	A0	27 Jul 2022	Key cylinder
108	EX-A-I-8-002	1 of 1	A0	27 Jul 2022	Key cylinder
109	EX-D-8-001	1 of 1	A0	27 Jul 2022	housing
110	EX-D-8-002	1 of 1	A0	27 Jul 2022	Glass
111	EX-D-8-003	1 of 1	A0	27 Jul 2022	Glass cover ring
112	EX-D-8-004	1 of 1	A0	27 Jul 2022	Terminal block
113	EX-D-8-005	1 of 1	A0	27 Jul 2022	Indicator shell
114	EX-D-8-006	1 of 1	A0	27 Jul 2022	Nut
115	EX-D-8-007	1 of 1	A0	27 Jul 2022	Diffuser
116	EX-D-8-008	1 of 1	A0	27 Jul 2022	Transparent parts

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117	EX-D-8-009	1 of 1	A0	27 Jul 2022	Terminal
118	EX-D-8-010	1 of 1	A0	27 Jul 2022	Nameplate
119	EX-A-J-8-001	1 of 1	A0	27 Jul 2022	Spring (j)
120	EX-A-J-8-002	1 of 1	A0	27 Jul 2022	Handle (j)
121	EX-A-K-8-001	1 of 1	A0	27 Jul 2022	Base(K)
122	EX-A-K-8-002	1 of 1	A0	27 Jul 2022	Transmission shaft
123	EX-A-K-8-003	1 of 1	A0	27 Jul 2022	Shell(k)
124	EX-A-K-8-004	1 of 1	A0	27 Jul 2022	Glass cover ring
125	EX-A-K-8-005	1 of 1	A0	27 Jul 2022	Diffuser
126	EX-A-K-8-006	1 of 1	A0	27 Jul 2022	Spring(k)
127	EX-A-K-8-007	1 of 1	A0	27 Jul 2022	O-ring $\Phi 34.5 \times 2.65$
128	EX-A-K-8-008	1 of 1	A0	27 Jul 2022	O-ring $\Phi 12.6 \times 1.5$
129	EX-A-K-8-009	1 of 1	A0	27 Jul 2022	Nut M32x1.5-6
130	EX-A-K-8-010	1 of 1	A0	27 Jul 2022	Connector(k)
131	EX-A-P-5-002	1 of 1	A0	27 Jul 2022	Panel axis
132	EX-A-P-8-001	1 of 1	A0	27 Jul 2022	Bushing
133	EX-A-P-8-002	1 of 1	A0	27 Jul 2022	Base
134	EX-A-P-8-003	1 of 1	A0	27 Jul 2022	Spring
135	EX-A-P-8-004	1 of 1	A0	27 Jul 2022	Sealing sleeve