



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

24-0067328-PDA-DUP
10-Oct-2024
26-Aug-2029
Singapore Engineering Services

CERTIFICATE OF

Product Design Assessment

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

DELTA ELECTRONICS INDIA PRIVATE LIMITED - SEZ UNIT

located at

**SY NO 16/1B2B PART AND 16/1B2A PART, PLOT NO 1
INDUSTRIAL PARK KURUBARAPALLI VILLAGE KRISHNAGIRI
DIST, , TAMIL NADU, India, 635115**

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: **Power Supply Unit**

Model: **DRM-24V480W3PX(y)
DRM-24V960W3PX(y)**

Endorsements:

Tier: **3 - Type Approved, unit certification not required**

This Product Design Assessment (PDA) Certificate remains valid until 26/Aug/2029 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

Guanying Wu, Engineer/Consultant

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 (2010)

DELTA ELECTRONICS INDIA PRIVATE LIMITED - SEZ UNIT

SY NO 16/1B2B PART AND 16/1B2A PART

PLOT NO 1 INDUSTRIAL PARK KURUBARAPALLI VILLAGE KRISHNAGIRI DIST

India 635115

Telephone: +91 04344 247555

Fax:

Email: Gayathri.M@deltaww.com

Web: www.deltaww.com

Tier: 3 - Type Approved, unit certification not required

Product: Power Supply Unit
Model: DRM-24V480W3PX(y)
DRM-24V960W3PX(y)

Endorsements:**Intended Service:**

DIN-rail mounted power supply modules for installation in consoles and cabinets, located in general power distribution zones.

Description:

CLiQ M DIN rail power supply series.

DRM-24V480W3PX(y) or DRM-24V960W3PX(y):

X = Any alphanumeric except Y and Z or blank, (y) = Any alphanumeric or blank.

Rating:

Input Voltage: 400-500VAC (3 phase)

Input Voltage tolerance: 320-600VAC (3 phase) or 380-600VAC (2 phase)

Input Frequency: 50-60Hz

Output Voltage: 24 VDC

Operating Temperature: -25°C to +70°C

Degree of protection: IP20

Output Continuous Current:

- 20A@24VDC for model DRM-24V480W3PX(y).

- 40A@24VDC for model DRM-24V960W3PX(y).

Service Restriction:

Unit Certification is not required for the product or products covered in this certificate. However, unit certification in accordance with Marine Vessels Rules 4-9-3/Table 5, Marine Vessels Rules 4-9-9/15.7 Table 2, Marine Vessels Rules 4-9-14/19.1.6 is required for the system, where this equipment is part of Category II or III computer-based systems as described in Marine Vessels Rules 4-9-3/7.1 Table 1 or part of systems that falls within the scope of Marine Vessels Rules 4-9-13/5.

Comments:

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) Safe area application only, not to be used in hazardous locations.
- 3) This approval is limited to the hardware only. Each particular application/ installation and the used application software is to be specifically approved in conjunction with the relevant system in which the units are being used in accordance with Marine Vessels Rules 4-9-3, 4-9-13 and 4-9-14 and other application specific requirements.

Notes/Drawing/Documentation:

Design Documents and Manuals:

DRM-24V480W3PX(y) _ Data sheet, DRM-24V480W3PX(y) _ Data sheet, Revision: 0, Pages: 20

DRM-24V480W3PX(y) _ Instruction manual _ DECA _ MB910, DRM-24V480W3PX(y) _ Instruction manual _

DECA _ MB910, Revision: -, Pages: 2

DRM-24V480W3PX(y) _ Instruction manual _ DECA _ MB912, DRM-24V480W3PX(y) _ Instruction manual _

DECA _ MB912, Revision: -, Pages: 2

DRM-24V480W3PX(y) _ Instruction manual _ DINKLE, DRM-24V480W3PX(y) _ Instruction manual _ DINKLE,

Revision: -, Pages: 2

DRM-24V480W3PX(y) _ Label drawing, DRM-24V480W3PX(y) _ Label drawing, Revision: 0, Pages: 1

DRM-24V480W3PX(y) _ Physical drawing, DRM-24V480W3PX(y) _ Physical drawing, Revision: 01, Pages: 1

DRM-24V480W3PX(y) _ Schematic circuit, DRM-24V480W3PX(y) _ Schematic circuit, Revision: 1, Pages: 16

DRM-24V960W3PX(y) _ Data sheet, DRM-24V960W3PX(y) _ Data sheet, Revision: 0, Pages: 22

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Fax:

Email: Gayathri.M@deltaww.com

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Tier: 3 - Type Approved, unit certification not required

DRM-24V960W3PX(y) _ Instruction manual _ DECA, DRM-24V960W3PX(y) _ Instruction manual _ DECA, Revision: -, Pages: 2

DRM-24V960W3PX(y) _ Label drawing, DRM-24V960W3PX(y) _ Label drawing, Revision: -, Pages: 1

DRM-24V960W3PX(y) _ Physical drawing, DRM-24V960W3PX(y) _ Physical drawing, Revision: 01, Pages: 2

DRM-24V960W3PX(y) _ Schematic circuit, DRM-24V960W3PX(y) _ Schematic circuit, Revision: S01, Pages: 21

Test Reports:

Report No. T211-0356/19, DRM-24V480W3PX(y) _ Environmental Test by SIQ Ljubljana, Dated: 05 August 2019, Revision: 0, Pages: 33

Report No. T211-0660/19, DRM-24V960W3PX(y) _ Environmental Test by SIQ Ljubljana, Dated: 14 August 2019, Revision: 0, Pages: 31

Report No. T223-0217/19, DRM-24V480W3PX(y) _ IEC 60950-1 test by SIQ Ljubljana, Dated: 08 May 2019, Revision: 1, Pages: 401

Report No. T223-0324/19, DRM-24V960W3PX(y) _ IEC 60950-1 test by SIQ Ljubljana, Dated: 28 June 2019, Revision: 0, Pages: 375

Report No. T251-0473/19 M1, DRM-24V480W3PX(y) _ EMC test report by SIQ Ljubljana, Dated: 13 June 2019, Revision: 1, Pages: 58

Report No. T251-0640/19, DRM-24V960W3PX(y) _ EMC test report by SIQ Ljubljana, Dated: 09 August 2019, Revision: 0, Pages: 56

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 26/Aug/2029 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:**

Rules for Conditions of Classification (2024) – 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:
Rules for Building and Classing Marine Vessels: 4-8-3/1.3, 4-8-3/1.7, 4-9-2/5.3, 4-9-9/13.1, 4-9-9/15.7 Table 1

Rules for Conditions of Classification (2024) – Offshore Units and Structures 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the following:
Rules for Building and Classing Mobile Offshore Units: 6-1-7/9.7.1

ABS Rules for Conditions of Classification (2024) – High Speed Craft 1C-1-4/11.9, 1C-1-A2, 1C-1-A3, which cover the following:
Rules for Building and Classing High Speed-Craft: 4-6-1/11, 4-7-1/11.3, 4-7-9/15.1, 4-7-9/15.5 Table 9

National:

NA

International:

NA

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located at

**NO. 33, PANTAO ROAD, SHIJIE TOWN, DONGGUAN,
GUANGDONG, , China**

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DELTA ELECTRONICS (DONGGUAN) CO., LTD.

NO. 33, PANTAO ROAD, SHIJIE TOWN, DONGGUAN, GUANGDONG

China

Telephone: +86 769-8663-9008 Ext: 3785, 2095

Fax:

Email: pear.Li@deltaww.com

Web: www.deltaww.com

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IACS UR E10 Rev.9