

CERTIFICATE OF COMPLIANCE

Certificate Number 20190724-E508207
Report Reference E508207-20190723
Issue Date 2019-JULY-24

Issued to: PennAir
580 Davies Drive
York PA 17402

This certificate confirms that representative samples of INDUSTRIAL CONTROL PANELS
General coverage

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL Standard 508A, Standard for Industrial Control Panels
Canadian Standard CSA C22.2 No. 14, Standard for Industrial Control Equipment

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

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Bruce Mahrenholz, Director North American Certification Program
UL LLC

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File E508207
Project 4789023967

July 23, 2019

REPORT

on

[Industrial Control Equipment] Industrial Control Panels

PennAir
York, PA

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Industrial Control Panels

GENERAL:

The industrial control panels covered by this Procedure are custom-built assemblies with a maximum voltage rating of 1000 V ac or dc, consisting of two or more components such as motor controllers, overload relays, fused disconnect switches, and/or circuit breakers and related control devices such as push button station, selector switches, timers, switches, control relays and the like with associated wiring, terminal blocks, pilot lights, etc. These panels are not intended for installation into hazardous locations or with circuits extending into hazardous locations.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Products designated USL have been investigated using requirements contained in UL Standard 508A, Standard for Industrial Control Panels.

Products designated CNL have been investigated using requirements contained in Canadian Standard CSA C22.2 No. 14, Standard for Industrial Control Equipment.

ABBREVIATIONS:

R/C - Recognized Component

CONSTRUCTION DETAILS:

Products covered by this report shall comply with applicable component, construction rating and marking requirements contained in UL508A, the Standard for Industrial Control Panels, and any additional information provided in this Procedure. Components and construction described in this Procedure are not required to be included in an industrial control panel.

OPTIONAL COMPONENTS AND CONSTRUCTION:

Supplementary Protectors - Any R/C (QVNU2) devices may be utilized for over-current conductor protection in a control circuit without further evaluation provided the following conditions are met when determined from the tabulated values according to the Recognized Component Directory:

A. When on the secondary side of an isolated supply -

1. The device Type is designated (OC) over-current and
2. The device's Use Group (UG) is designated 'A', General Industrial and
3. The device's terminals are wired (FW) in accordance with it's designated coding as follows:
 - 0 - Suitable for factory wiring only
 - 1 - Line Terminals evaluated for field wiring
 - 2 - Load Terminals evaluated for field wiring
 - 3 - Line and load terminals evaluated for field wiring
4. The voltage does not exceed the device's maximum Voltage (V) rating and
5. The amperage does not exceed the device's maximum Amperage (A) rating and
6. When relied upon to provide over-current protection, the maximum Trip Curve (TC) percentage shall be multiplied by the device's ampere rating and the result is considered the rated over-current protection for use in determining compliance with UL 508A. Trip Curve ratings and the corresponding percentages are as follows:
 - 0 - 125% or as described below
 - 1 - 135% or as described below
 - 2 - Manufacturer, Cat. No., and percentage as described below: None have been requested by the manufacturer at this time.

B. When not in an isolated secondary circuit -

1. All provisions as indicated when on the secondary side of an isolated supply are met and
2. The Short-Circuit Rating (SC) of the device indicated is U2 (short-circuit tests were performed without series over-current protection and recalibration was performed). An SC indicated rating of C2 is acceptable when the line side branch circuit protection is sized at no more than 400 percent of the amperage rating of the device.

Circuit Breaker Accessories- R/C (DIHS2) Circuit breaker Accessories or R/C (QEUY2) Panelboard Accessories, which do not require disassembly of the circuit breaker and are:

1. Mechanical devices (such as handles, operators, operating mechanisms, mounting brackets, standoffs etc.) or
2. Electrical terminals such as lug kits and neutral/ground bars. For internal wiring connections or when used as a field wiring terminal, shall be used within wire range and marked with tightening torque indicated in kit instructions. Unless provided in panel, evaluated for service equipment use and marked suitable only for use as service equipment. Neutral bars shall be electrically isolated from grounded metal by insulators and with electrical spacing per UL508A.

These components are installed in combination with the circuit breakers or other devices as described in the installation instructions. Devices, which mount through an opening in the enclosure, are suitable for use on Type 1 enclosures only unless otherwise indicated.

TEST RECORD NO. 1

SAMPLES:

Samples of this manufacturer's industrial control panels were submitted. They were found to be constructed as described in the preceding section of this Report.

Due to the use of Listed and Recognized Components within their established ratings, tests were not deemed necessary.

TEST RECORD SUMMARY:

The results of the investigation indicate that the samples evaluated comply with the applicable requirements in the standard for:

Standards:	Edition	Issue Date	Last Revision
UL Standard 508A, Standard for Industrial Control Panels	3rd	2018-04-24	2018-07-03
Canadian Standard CSA C22.2 No. 14, Standard for Industrial Control Equipment	13th	2018-03-01	N/A

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CONCLUSION

Samples of the products covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify UL certification or that the product(s) described are covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Certification Mark of UL on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of UL LLC. The Certification Mark of UL on the product, or the UL symbol on the product and the Certification Mark of UL on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Listing and Follow-Up Service.

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