CSA INTERNATIONAL

# Certificate of Compliance

**Certificate:** 2197439 **Master Contract:** 180115

**Project:** 2197439 **Date Issued:** September 23, 2009

**Issued to:** **TECO Electric & Machinery Co., Ltd.**
**2F, No. 22, Sec. 1 Chung Shan Rd. Sin-Chuang City**
**Taipei County 242**
**TAIWAN**
**Attention: Mr. Tony Huang**

***The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only***

C US

**Issued by:** Kyle Wong, C.E.T.

**Authorized by:** Jupiter Huang
Certifier

**PRODUCTS**

Class 3211 03 - INDUSTRIAL CONTROL EQUIPMENT - Motor Controllers - Auxiliary Devices
Class 3211 83 - INDUSTRIAL CONTROL EQUIPMENT - Motor Controllers - Auxiliary Devices - Certified to U.S. Standard

PART A: Types RHU-5 and RHU-10.

Thermal Overload Relay, are either ambient-compensated or non-ambient compensated, with two or three adjustable heater elements, open-type, adjustable, with reset knobs, three phases or single phase, main contacts rated 600 V ac, 60 Hz, with short circuit rating of 5000 A, 600 V, auxiliary contacts rated A600, Q300 for both normally open and normally closed contacts. Current ratings are tabulated as below.

| Type RHU-5 | Type RHU-10 | Current Range (A) |
|---|---|---|
| -0.16 | | 0.1 - 0.16 |
| -0.25 | | 0.16 - 0.25 |
| -0.4 | | 0.25 - 0.4 |
| -0.5 | | 0.35 - 0.5 |
| -0.63 | | 0.45-0.6 |
| -0.8 | | 0.55 - 0.8 |
| -1 | | 0.75 - 1 |
| -1.3 | | 0.9 - 1.3 |

| | | |
|---|---|---|
| -1.6 | | 1.1 - 1.6 |
| -2 | | 1.4 - 2 |
| -2.5 | | 1.8 - 2.5 |
| -3.2 | | 2.3 - 3.2 |
| -4 | | 2.9 - 4 |
| -4.8 | | 3.5 - 4.8 |
| -6.3 | | 4.5 - 6.3 |
| -7.5 | | 5.5 – 7.5 |
| -10 | | 7.2 – 10 |
| -12.5 | | 9 – 12.5 |
| - | -16 | 11.3 - 16 |
| - | -20 | 15 - 20 |
| - | -21.5 | 17.5 – 21.5 |
| - | -25 | 21 - 25 |
| - | -30 | 25 - 30 |
| - | -36 | 30 - 36 |
| - | -38 | 36 - 38 |

Type RHU-5, are to be used with Submittor's Certified contactor, Models CN-5(K) / -6(K) or CNL-5(K) / -6(K).
Type RHU-10, are to be used with Submittor's Certified contactor, Models CU(L)-9 / -11 / -16 / -18 / -22 / -27 / -32 / -38.

PART B: Type RHU-80, RHU-80L

Thermal Overload Relay, are ambient-compensated, with two or three adjustable heater elements, open-type, adjustable, with reset knobs, three phases or single phase, main contacts rated 600 V ac, 60 Hz, auxiliary contacts rated A600, Q300. Current rating and short circuit rating are tabulated as below.

| Type RHU-80 | Current Range | Short Circuit |
|---|---|---|
| 25 | 17-25 A | 5 kA |
| 36 | 24.5-36 A | 5 kA |
| 47 | 35-47 A | 5 kA |
| 60 | 45-60 A | 10 kA |
| 75 | 58-75 A | 10 kA |
| 90 | 72-90 A | 10 kA |
| 97 | 77-97 A | 10 kA |

For use with Submittor's Certified contactor, Models CN-18 / 22 / 25 / 35 / 50 / 65 / 80 / 100 / 125 or CU(L)-18 / 22 / 27 / 32 / 38 / 40 / 50 / 65 / 80.

Note:

1. Certified only for use in complete assemblies where the suitability of the combination is subject to further investigation.
2. The type designation may be completed with suffixes indicating application, current rating, terminal types, etc.

## APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91 - General Requirements – Canadian Electrical Code, PART II
CAN/CSA-C22.2 No. 14 - 05 - Industrial Control Equipment
UL Std No. 508, 17th Ed. - Industrial Control Equipment

## MARKINGS

The following markings shall be made via CSA Certified adhesive type nameplate (compatible with the mounting surface), case moulding, permanent silk screening, hot stamp/ink stamped into the enclosure.

(a) Submittor's name
(b) Model designation
(c) Complete electrical rating
(d) The short circuit ratings "SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN ___ RMS SYMMETRICAL AMPERES, 600 V MAXIMUM" and
"Use Fuses Only, Class RK5" for RHU-5/-10 series.
"Use Fuses Only, Time Delay Fuse, Class RK5" for RHU-80 series.
*See rating for short circuit current rating that shall be marked in the blank space.
(e) "Class 10"
(f) Wiring diagram is also marked on each device, minimum intended size of enclosure information is provided on the carton or in the information sheet.
(g) CSA Mark with C/US indicator
(h) WARNING: THE OVERLOAD RELAY MUST BE REPLACED IF BURNOUT OF THE CURRENT ELEMENT OCCURS. This warning is marked on each or supplied loose.
(i) The overload heater element table is provided loose with each unit. The phrase "the tripping current is 125% of the dial settings" or equivalent appears on a sheet with each unit. The outside ambient temperature (40C) shall be marked along with the tripping current for nonambient-temperature-compensated overload relay.
(j) "CAUTION: FOR SINGLE PHASE APPLICATIONS THE ELEMENTS ARE TO BE CONNECTED IN BOTH POLES."
(k) Temperature rating of the field installed conductors and tightening torque markings for field wiring terminals (see the Table below) may appear on each instruction sheet supplied with each device

The torque and wire size is as follows (RHN-5, -10, -80, -180 are listed below as being representative of the Models in the listing).

| Cat No. | Wire Type & Temperature | Main Terminal | | | Auxiliary Terminal | | |
|---|---|---|---|---|---|---|---|
| | | Wire Size (AWG) | Solid (Sol) or Strands (Str) | Torque (lb-in) | Wire Size (AWG) | Solid (Sol) or Strands (Str) | Torque (lb-in) |
| RHU-5 | CU, 75°C | 18 - 10 | Sol or Str | 13 – 20 | 22 - 12 | Sol or Str | 10.6 |
| RHU-10 | CU, 75°C | 14 - 10 | Sol or Str | 13 – 20 | 22 - 12 | Sol or Str | 10.6 |
| RHU-10L | CU, 75°C | 10 - 6 | Str | 22 – 31 | 22 - 12 | Sol or Str | 10.6 |
| RHU-80 | CU, 75°C | 10 - 6 | Sol or Str | 35 – 45 | 22 - 12 | Sol or Str | 10.6 |
| RHU-80L | CU, 75°C | 8 - 1 | Str | 31 – 53 | 22 - 12 | Sol or Str | 10.6 |

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For models with mounting socket: For field wiring terminals, Wire Strip Length - 9 mm; 14.5 mm

| Model RHU-10L | Mounting Socket Terminal | Terminal Block<br>Main Terminal (for current range over 30 A only) |
|---|---|---|
| Temperature, ℃ | 75 | 75 |
| Wire Size, AWG / Torque, lb-in | 6-16 AWG / 16-25 lb-in | 6-10 AWG / 22-31 lb-in |

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# *Supplement to Certificate of Compliance*

**Certificate:** 2197439 **Master Contract:** 180115

***The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.***

## Product Certification History

| Project | Date | Description |
|---|---|---|
| 2197439 | September 23, 2009 | Original Certification. |