

File E234324
Project 04CA41923

Issued: November 30, 2005
Revised: August 3, 2010

REPORT

on

COMPONENT - INDUSTRIAL CONTROL PANELS

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DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Air Heaters for mounting in Industrial Control Panels, Series CR 0305 or 1305 followed by 1 to 4 followed by 0 or 9 followed by 00 up to 40. CS and CSF 0320.

General: These devices are used for control the humidity and the temperature within industrial control panels for prevention of falling below the condensation point. The devices are available in different power values for different panel enclosure sizes.

These devices can be equipped with thermostat or humidity regulator. Possible connection is with field wiring terminals or additional delivered cable and plug. Possible Operation Modes could be fan and heater simultaneous or fan and heater independent of each other.

The devices were investigated according UL508, CSA 22.2 No. 14-05 in combination with the basic requirements of UL499 and CSA 22.2 No 88-1958.

ELECTRICAL RATING:

Models: 0 or 1 followed by	Heater Wattage (W)	Voltage	Hz	Differences	Fan Power (W)
3051.0-xx	950	230V	50/60	With Thermostat	15 / 14
3051.0-xx	950	230V	50/60	With Hygrostat	15 / 14
3051.9-xx	700	120V	50/60	With Thermostat	15.5 / 14.5
3051.9-xx	700	120V	50/60	With Hygrostat	15.5 / 14.5
3052.0-xx	200	230V	50/60	With Thermostat	15 / 14
3052.9-xx	200	120V	50/60	With Hygrostat	15.5 / 14.5
3053.0-xx	500	230V	50/60	With Thermostat	15 / 14
3051.9-xx	500	120V	50/60	With Thermostat	15.5 / 14.5
3054.0-xx	500	230V	50/60	With Hygrostat	15 / 14
3059.9-xx	950	120V	50/60	With Thermostat	15.5 / 14.5
3059.9-xx	950	120V	50/60	With Hygrostat	15.5 / 14.5

Models:	Heater Wattage (W)	Voltage	Max. Current (A)	Hz
CS, CSF 0320x.9	1000	100-120 V	10	50/60
CS, CSF 0320x.0	1000	220-240 V	5	50/60

NOMENCLATURE

030 5 1. 0-XX
A B C D-E

A - 130 Air heater with clip mounting Din rail mounted
030 Air heater for screw mounting

B - 5 Enclosure made of plastic

C - Heater Power and Supply voltage

1. = max 950W at 230V, 19 = max 700W at 120V,
2. = 200W at 230V, 29 = 200W at 120V
3. = 500W at 230V, 39 = 500W at 120V
4. = max 700W at 230V
9. = max 950W at 120V

D - Supply voltage

0 = 230V,ac
9 = 120V ac

E - 00 Temperature controlled airheater - adjustment range 0 to 60°C (or
32 to 140°F)
Humidity controlled airheater - fixed value 65% rel.Hum.

Cord connected or Terminal

E - 00 up to 40 Variant describes different possibilities to combine the way of connection via Terminal or cord with or without plug. Also possible Temp regulator or humidity regulator. Humidity regulator has different factory setting i.e 50 or 65% RH. Way of interaction between the fan and the regulating part is also involved (Heater and fan controlled or heater controlled and fan continuous running). Number outside of range of 0-40 is not UL **Recognized**.

CS or CSF 0320x.y-zz where;

x: Thermostat temperature 0 - Without thermostat
1 - 25°C (77°F), Normally closed
2 - 15°C (59°F), Normally closed
9 - Jumper

y: Line Voltage 0 - 220V-240Vac
9 - 100V-120Vac

zz: Options related to mounting method and hardware, **where zz is from 00 to 30.**

CS and CSF models are identical except the CS model does not incorporate an internal thermostat.

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

USR - Indicates the air heaters were investigated to the Standard for Industrial Control Panels, UL 508A, 1st Edition.

CNR - Indicates the air heaters were investigated to the Canadian Standard CAN/CSA C22.2 No. 14-05.

Use - For use only in complete products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

CONDITIONS OF ACCEPTABILITY - Some of the features which should be considered in determining the acceptability of this heater in the specific applications are indicated below:

1. The heater is intended for use within an enclosure.
2. These heaters are not intended for use in free air.
3. Strain relief was tested with a cord of 7.3mm diameter. Usage of different cord sizes shall be investigated within end use if necessary.
4. The devices are prepared for screw mounting.
5. The terminal block is suitable for only factory wiring.
6. The heater is intended for use as air heating inside an enclosure and not for safety.

CONSTRUCTION DETAILS:

Spacings - Minimum of 3.2 mm spacings are maintained through air and 6.4 mm spacings over surfaces between uninsulated current-carrying parts and dead-metal parts for voltages up to 150V. Minimum 6.4 mm spacings are maintained through air and 9.5 mm spacings over surfaces between uninsulated current-carrying parts and dead-metal parts for voltages from 151V up to 300V.

Corrosion Protection: Complete enclosure is of corrosion free plastic.

Markings - Indelibly marked with the following:

Recognized **Company's** name or UL File number
Model name
Electrical ratings in amperes, volt-amperes, or watts, and volts.
L, N, Ground symbol,
Production date marking: JJWWXX means year/week/employer for example "0525xx" and the
Recognized Component Mark

Fan motor is thermally protected. Marking: ("TP").

* Due to surfaces hotter **than 50°C**, a permanent warning Marking shall be applied on a surface visible after mounting. " Hot surface risk of burn " with

the relevant pictogram.



All Marking label materials are PGJI2/PGJI8. Combination of printer, ink, and label stock are identified in the Recognized Component Directory.

The label material shall be **Recognized** for temperature of 90°C on polymeric surfaces.