

# CERTIFICATE OF COMPLIANCE

Certificate Number 20121113-E248340  
Report Reference E248340-20121112  
Issue Date 2012-NOVEMBER-13

Issued to: HT SPA  
VIA CONEGLIANO 73/B  
31058 SUSEGANA TV ITALY



This is to certify that  
representative samples of COMPONENT - HEATERS, SPECIALTY  
See addendum for models.

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

Standard(s) for Safety: UL 499, Electric Heating Appliances  
CSA C22.2 No. 72, Heater Elements

Additional Information: See the UL Online Certifications Directory at  
[www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada:  and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Recognized Component Mark on the product.



William R. Carney, Director, North American Certification Programs

UL LLC

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# CERTIFICATE OF COMPLIANCE

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Report Reference E248340-20121112  
Issue Date 2012-NOVEMBER-13

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Cartridge heaters:

Series MA95, models "L", "R" and "M", may be f/b 1, 2, 3 or 4, f/b A or Y, may be followed by 1 or 2

Series LT95, models "L", and "M", may be f/b 1, 2, 3 or 4, f/b A or Y, may be followed by 1 or 2



William R. Carney, Director, North American Certification Programs

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File E248340

Project 11CA35214

November 12, 2012

REPORT

on

COMPONENT - HEATERS, SPECIALTY

HT SPA  
SUSEGANA TV ITALY

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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR: Component - Cartridge heaters, Series MA95, models "L", "R" and "M", may be f/b 1, 2, 3 or 4, f/b A or Y, may be followed by 1 or 2.

USR, CNR: Component - Cartridge heaters, Series LT95, models "L", and "M", may be f/b 1, 2, 3 or 4, f/b A or Y, may be followed by 1 or 2.

## RATINGS:

Series	Voltage, [V]	Maximum Power, [W]	Ext Diameter Sheath min [mm]	Maximum Power Density, [W/cm <sup>2</sup> ]	Service Condition
MA95 Model "L"	100-120	2500	4.5	80	Water
	220-240	5000	4.5		
	254-277	5000	8.0		
	400-600	15000	8.0		
MA95 Model "R"	100-120	1250	4.5	8	Still Air
	220-240	2500	4.5		
	254-277	2500	8.0		
	400-600	5000	8.0		
MA95 Model "M"	100-120	2500	4.5	80	Thermo Block
	220-240	5000	4.5		
	254-277	5000	8.0		
	400-600	15000	8.0		

Series	Voltage, [V]	Maximum Power, [W]	Ext sheath diameters min [mm]	Maximum Power Density, [W/cm <sup>2</sup> ]	Service Condition
LT95 Model "L"	100-120	2500	5.0	15	Water
	220-240	5000	5.0		
	254-277	5000	8.0		
	400-600	5000	8.0		
LT95 Model "M"	100-120	2500	5.0	7	Thermo Block
	220-240	5000	5.0		
	254-277	5000	8.0		
	400-600	5000	8.0		

Watt Density = (W/cm. <sup>2</sup> )	Total Wattage 3.14 (O.D. in.) (Heated length in.)

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

These products are elements for mounting on end products, such as radiators, intended to be submersed in Water, Still Air, or inserted in a Thermo Block.

USR - Identifies compliance with Standards UL 499 13<sup>th</sup> Edition.

CNR - Identifies compliance with CSA Standards C22.2 No. 72-10.

Where components are described as R/C (CCN2)/CN, they are to be both UL Recognized and Certified for Canada.

Where components are described as Listed/CN, they are to be both UL Listed and Certified for Canada.

Where components are described as either R/C (CCN2 or CCN3) or Listed, they are considered acceptable for use within a CNL Listed or CNR Recognized Component product without any additional approvals.

## MODEL BREAKDOWN

Example: MA95 L 1 A B

MA95	or	LT95	-	Series designation
L	-	"L", "R", or "M"	=	Model designation
1	-	Sealing:		1= Epoxy (90°C max)
				2= Silicone (140°C max)
				3= Silicone (105°C max)
				4= Ceramic (no temp. limit assigned)
A	-	Sheath		A= AISI 304, 321, or 316
				Y= Alloy 800
B	-	Insulator disc:		1= Mica rated 200°C
				2= PTFE rated 180°C