

Zur Information

**wird bei Änderungen
nicht berücksichtigt**

File E76126
Project 04ME05382

August 2, 2004

REPORT

on

COMPONENT - SUPPLEMENTARY PROTECTORS

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DESCRIPTIONPRODUCT COVERED:

Component Supplementary Protectors Series S200P, Cat. Nos. S201P, S202P, S203P and S204P, followed by B, C, D, K or Z, followed by a number between .02 and 63.

GENERAL:

These devices are one, two, three or four pole overcurrent protectors. When the device is multipole, a common trip lever is used between poles. The 1, 2, 3 and 4 following S22 stands for the number of poles. The letter B, C, D, K or Z in the catalog number indicates the trip curve. The last digits indicate the ampere rating.

RATINGS:

Current Ratings - S200P Series the maximum rating is 63 A. General Use Only.

Voltage Ratings - Single pole protectors are rated 277 V ac maximum. Multipole protectors are rated 480Y/277 V ac maximum.

Short Circuit Ratings - S200P Series are rated 10 kA.

CONDITIONS OF ACCEPTABILITY (NOT FOR UL REPRESENTATIVE'S USE):

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

1. These devices are intended to be rail mounted and should be mounted in a nonmetallic enclosure or in a metallic enclosure having an insulator under the mounting wall.
2. The terminals of the device have been investigated for field wiring.

3. These devices are not suitable for branch circuit protection.
4. All short circuit testing was conducted with series protection.
5. The spacings provided meet the requirements of Table 16.1 Column A, General Industrial, for 600V.

CONSTRUCTION DETAILS:

Spacings - The spacings provided meet the requirements of Table 16.1 Column A, General Industrial, for 600V applications.

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Corrosion Protection - All parts are of corrosion resistant material or are plated or painted as corrosion protection.

Marking - Each device is marked to include the Recognized Company name, and catalog number. Electrical ratings are an optional marking.

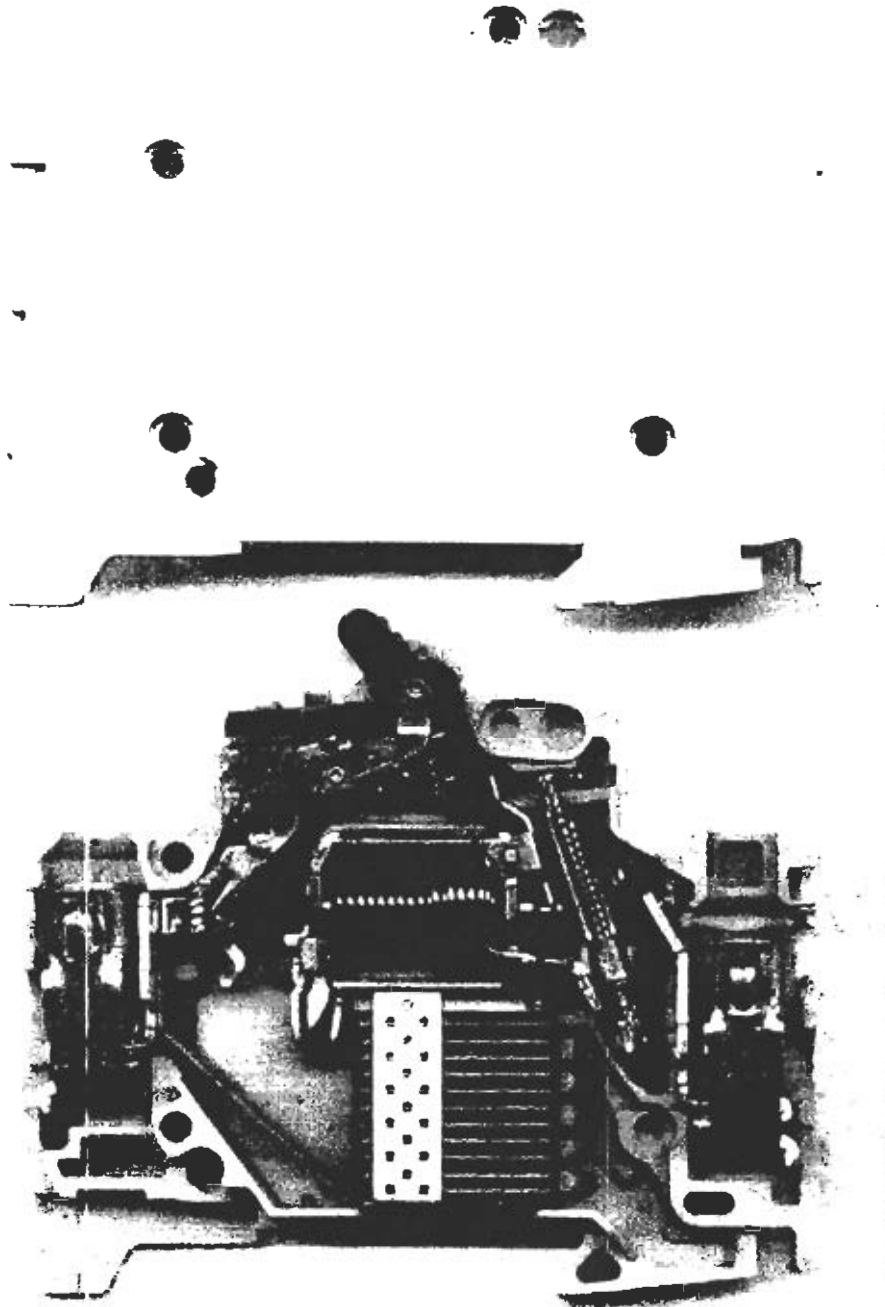
S200P

Fig. 1
Fig. 2
Fig. 3
Fig. 4
Fig. 5

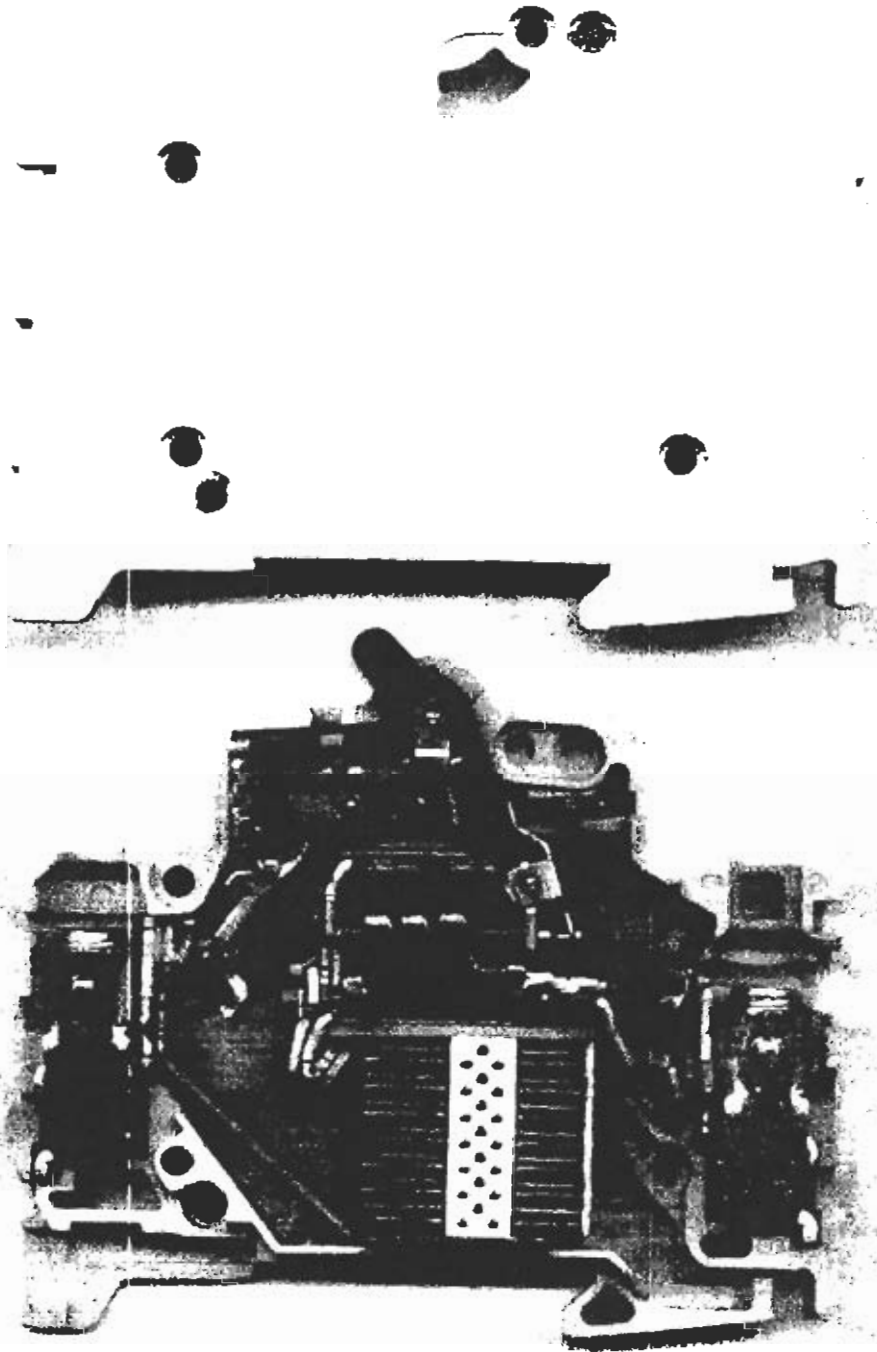
General - Fig. 1 shows the construction for ratings up to 8A. Fig. 2 shows the construction for ratings of 10A and higher. See Markings Section above. Figure 3 details the internal construction of the protectors rated up to 8A. Fig. 4 shows the detail of the coil construction of ratings up to 8A. Fig. 5 shows the internal construction of ratings of 10A and higher. See Ill. 1 for an outline drawing and general ratings.

1. Housing and Housing Cover -R/C Wetpolyester FM-BMC RF693-18IMGR35/S (QMPZ2), manufactured by Menzolit-Werke, 1.6mm thick (local 0.9mm) Single pole devices overall 85 by 69 by 17.5 mm. Calibration screw holes sealed with Trivoltherm fiber plates, 0.5mm thick.
2. Fastener - Fastener clips, 1.5mm thick POM manufactured by DuPont, snap on rail when breaker is pressed against rail. Held captive by enclosure halves.
3. Pre Chamber Plate - 1.5mm thick (local 0.75mm) PA66 manufactured by BASF, two plates provided.
4. Arc Cooling Chamber - From 0.2A to 8A, 11 metal plates and 1 plastic plate, PA66 manufactured by BASF, (21mm x 14mm x 0.90mm thick) from 10A to 63A 14 metal plates (24mm x 14mm x 0.60mm thick) held captive by fiber support.
5. Arc Chamber Support - Fiber, overall 0.76 thick. Held captive by arc chamber plates.
6. Slide - PPA GF40 manufactured by LNP, 17.8mm long, 1 mm thick (local 0.6mm) with metal inlet.
7. Coupling - (Not shown - Multipole units only) 1.2mm (local 0.5mm) thick PA66 GF50 manufactured by BASF. Couples trip mechanisms through slot on housing. Opening in housing when provided on single pole devices sealed with polyester disk when not used.
8. Latching Mechanism with moveable contact supported by 1mm plated steel, lifetime lubricated with high temperature oil "gleitmo 415 plus" (-30°C to 250°C, Fuchs Lubritech GmbH)
9. Moveable Contact 1.5mm copper plate (silvercoated) and Contact Holder 0.8mm plated steel (copper coated) are mounted by solid rivet
11. Pigtail copper, consist of 7 bundles of strands, each bundle contains 1281 strands, each strand is 0.05mm in diameter
12. Handle and Handle Ties - Handle, PA66 GF25 manufactured by BASF. Multiple units are provided with the handle tie, U-shaped aluminium which is held in place by projections engaging recesses in handle.

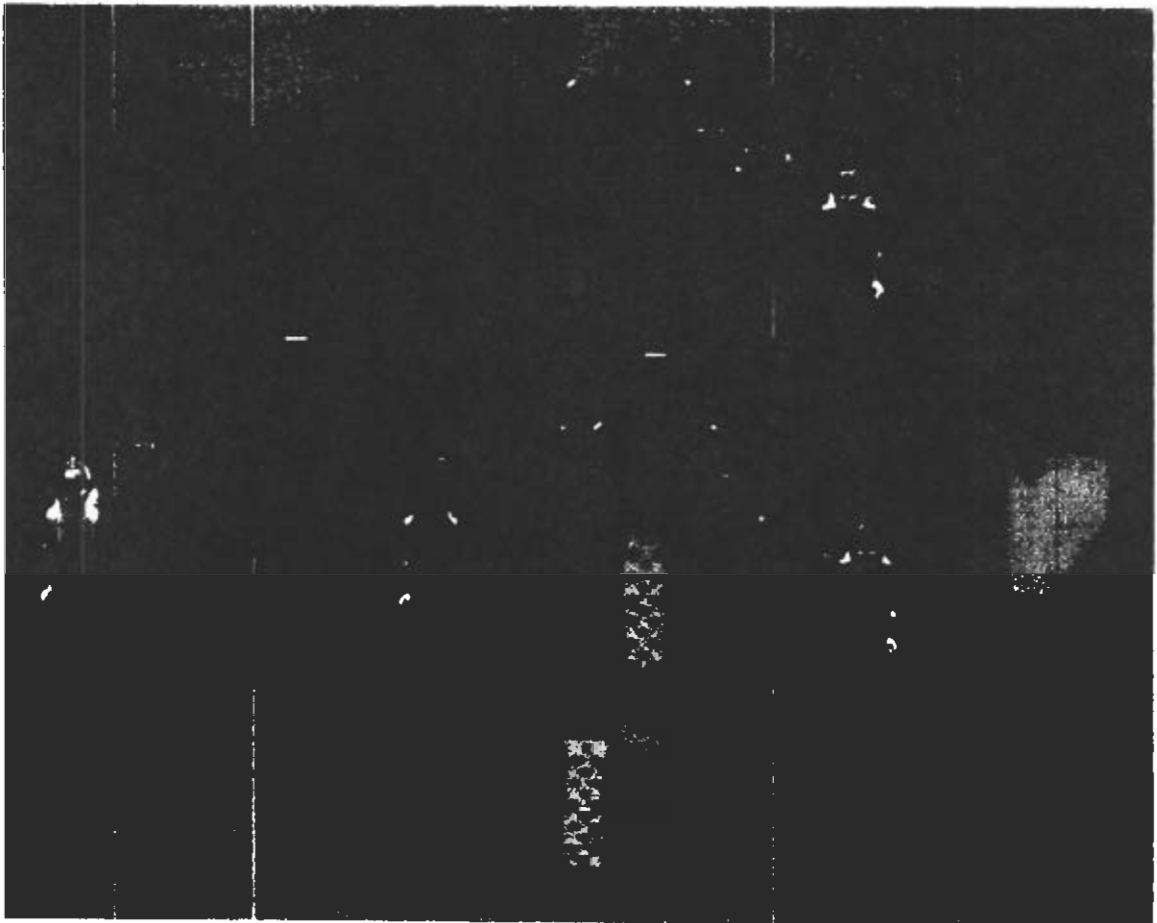
13. Position Indicator - PA66 manufactured by BASF, 14mm x 12mm x 0.6mm moved by pin at the contact holder. Shows red color in "ON" position, green color in "OFF" position.
14. Load Terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 1.2mm brass from 0.2A to 25A and from 30A to 63A of 1.2mm copper, silver coated. The bottom of the clamp is provided with indents for wire securement. The frame 1.5mm steel (zinc coated) the metric thread M9 screw of steel (zinc coated).
15. Arc Runner - Copper plated steel, 0.8 thick, shaped as shown.
16. Line Terminal - consist of stationary sheet metal clamp, frame and screw. The clamp consist of 1.2mm brass from 0.2A to 25A and from 30A to 63A of 1.2mm copper, silver coated. The bottom of the clamp is provided with indents for wire securement. The frame 1.5mm steel (zinc coated) the metric thread M9 screw of steel (zinc coated).
17. Bimetal - Measures 5 and 6mm wide x 1mm thick. May be provided with additional heater. See Ill. 2.
18. Coil - high temperature isolation enamel copper wire, diameter 0.4mm up to 3mm thick, single or multilayer, different numbers of windings.
19. Coil support - Copper plated steel or brass, 1.2mm thick.
20. Coil Assembly - Spring holder is cylindrical plated steel, approx 6.3mm in dia, riveted to the coil support. Hole provided to captivate spring. Spring - approx 14mm free length, 20 turns, 0.26mm in dia, spring steel. Moving plunger is 6mm in dia at widest part. Hole provided to captivate spring. Outer end shaped as shown to operate rocking trip lever.
21. Impact Pin - PA66 GF35 manufactured by BASF. Nail shaped 17.2mm long x 1.9mm in dia.
22. Stationary Contact - Measures 4mm x 3.2mm x 0.5mm thick. Welded to the Stationary Contact Support Material is AgC3.
22. Stationary Contact Support - Up to 8A one part copper plated steel 1mm thick. From 10A to 63A divided in contact support plated copper, silver coated, 1mm thick and upper guide rail, copper plated steel 1mm thick.
23. Fixed Contact Insulation - PA66 manufactured by BASF. 27mm x 14mm x 1mm. Covered Stationary Contact Support.
24. Snap In Fastener - (Not shown - Multipole units only) POM manufactured by Du Pont, 17mm long x 5.5mm dia with 2 hooks on both sides



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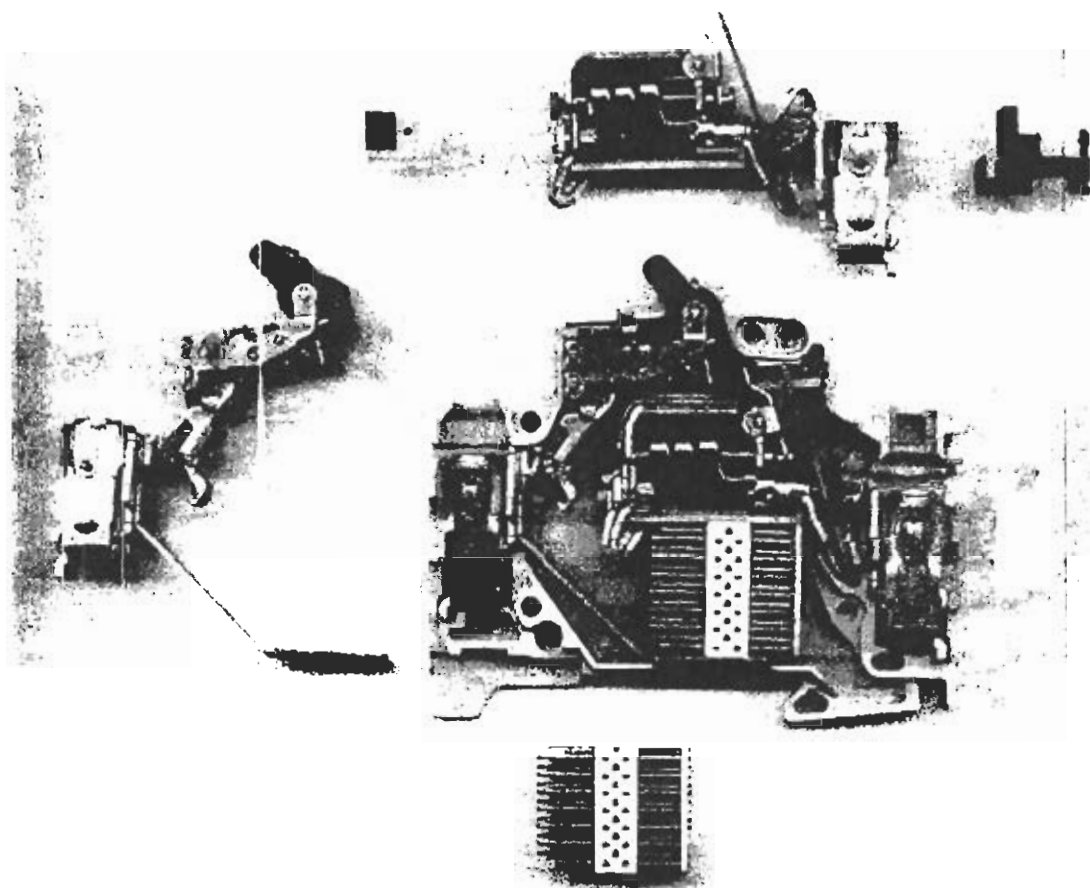
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**Dimensions
mm**

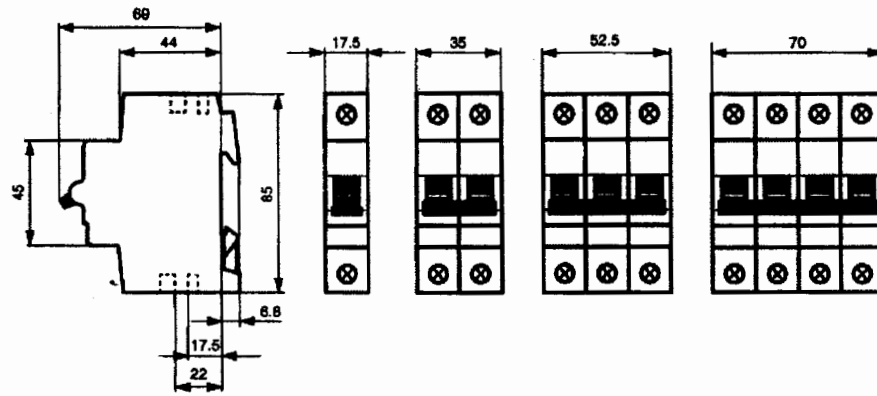
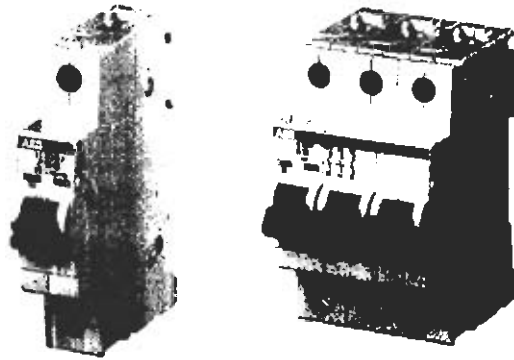


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C040088367

UL 1077 Circuit Breakers**Technical data**

Type name	S 200 P
Approvals	UL 1077, CSA 22.2 No. 235 M89, IEC 60898
UL file No	E 76126
Number of poles	1, 2, 3 and 4
Tripping characteristic	B, C, D, K and Z
Rated current	0.2 63 A *
Rated voltage	1-pole: 277 VAC; multipole: 480Y/277 VAC
Rated interrupting capacity	10 kA up to 25 A; 6 kA from 32A to 63 A
Frequency	50/60 Hz
Protection category	IP 20
Mounting position	Optional
Standard mounting	35 mm DIN rail
Terminals, copper wire only	conductors from 18-4 AWG (0.75 - 25sq mm)
Service life at rated load	20,000 operations
Tightening torque	25 in. lbs (2,8 Nm)
Ambient temperature	25 °C
Operational temp. range	-25 + 55 deg. C
Shock	10 g minimum of 20 impacts, shock duration of 13 ms
Vibration resistance	5 g, minimum of 30 minutes

* C, D and Z beginning with 0.5 A; B beginning with 6 A

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TEST RECORD NO. 1

SAMPLES:

Representative production samples of the Type S200P as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

GENERAL:

Test results relate only to the items tested. Tests were considered covered as follows:

Test Ref.	Test Name	Sample
Sec. 19	Calibration	
Sec. 20	Temperature	
Sec. 21	Overload	
Sec. 22	Endurance	
Sec. 23	Dielectric Withstand	
Sec. 24	Recalibration	
Sec. 25	Short Circuit	

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in the Standard for Supplementary Protectors for Use in Electrical Equipment, UL-1077.

CONCLUSION

Samples of the components covered by this Report have been found to comply with the requirements covering the category and the components are judged to be eligible for Component Recognition and Follow-Up Service. Under the Service, the manufacturer is authorized to use the Recognized Marking described in the Follow-Up Service Procedure on such components which comply with said Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those components which properly bear the Recognized Markings are considered as Recognized Components by Underwriters Laboratories Inc.

Report by:

Reviewed by:

PAUL NOTARIAN
Senior Staff Engineer