



UNDERWRITERS LABORATORIES INC.
CHICAGO · NORTHBROOK, ILL. · MELVILLE, N.Y. · SANTA CLARA, CALIF.

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REPORT

on

COMPONENT - TERMINAL BLOCKS

Amerace Corporation
Control Products Division
Union, New Jersey

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DESCRIPTION

PRODUCT COVERED:

USR - Component-Terminal Blocks, Cat. Nos. 242AL, 0242AL, with or without Prefix P; Cat. Nos. 611, 614, 615, 618, 621, 624, 625, 628, 0611, 0621, 0624, 0614, 0615, 0618, 0625, 0628 with or without Prefixes P and/or D. Cat. Nos. 624B, 625B, 0624B, 0625B.

USR - Cat. Nos. 711, 714, 715, 718, 721, 724, 724PS, 724B, 725, 725B, 728, 0714, 0715, 0718, 0724B, 0725B, 0711, 0721, 0724, 0724PS, 0725, 0728, with or without Prefixes P and/or D, Cat. Nos. 0721ERT, 0724ERT, 0725ERT.

USR - Cat. Nos. 824, 814, 814B, D814, 824B, D824, 824E, 824AL, with **Prefix P, models 814, 824, and D814 may be followed by suffix -BU.**

USR - Cat. Nos. 1546143, 1546144, 1546147, 1546148, 1546234, 1546235, with Suffix -1 or -2.

USR - CNR - Cat. Nos. 154143, 154144, 154147, 154148, 1546149, 1546150, 1546151, 1546152, 154234, 154235, with Suffix -1 or -2. Cat. No. 3-1437394-6.

USR - Investigated for compliance with the United States Standard - UL 1059, the Standard for Terminal Blocks, Fourth Edition.

CNR - Investigated for compliance with Canadian National Standard - C22.2 No. 158-1987, the Standard for Terminal Blocks, dated December 1987.

GENERAL:

These devices are terminal blocks provided with wire binding screws and pressure wire connectors for conductor termination. They are intended for general industrial and commercial applications within the ratings specified.

Ratings - The following cat. nos. use this manufacturer's pressure wire connectors of the cat. no. indicated. Wire sizes are specified in the descriptive pages of this report.

| Cat. Nos. | Connector | Max | | Commercial | Torque (lb-in) |
|---------------------------------------|----------------|--|---------------------------|------------|-------------------|
| | | Current (Amperes) | Max Voltage Industrial | | |
| 614, 624, 0614, Cat. No. 199 0624 | | 50 | 300 | 250 | 8 |
| 714, 724, 0714, Cat. No. 199 0724 | | 50 | 600 | 600 | 8 |
| 615, 625, 0615, Cat. No. 299 0625 | | 40 | 300 | 250 | 8 |
| 715, 725, 0715, Cat. No. 299 0725 | | 40 | 600 | 250 | 8 |
| 814, 824, 0824, Cat. No. 800 824AL | Cat. No. 800AL | 150 | 600 | 600 | 50 |
| 242AL, 0242AL | Cat. No. 200AL | # | 600 | 600 | 100 |
| 1546147, Cat. No. 199 1546148 | | ## | 600 | 600 | 35 |
| 1546234, Cat. No. 299 1546235 | | 50 | 600 | 600 | 8 |
| 3-1437394-6 | | 40 | 600 | 600 | 8 |
| | | 30 | 600 | 600 | 10 |
| | | # - 150 A copper, 120 A aluminum wire. | | | |
| | | ## - 85 A copper, 65 A aluminum wire. | | | |
| 1546235 | | | | | |
| 3-1437394-6 | | 30 | 600 | 600 | 10 |
| | | # - 150 A copper, 120 A aluminum wire. | | | |
| | | ## - 85 A copper, 65 A aluminum wire. | | | |

Cat. Nos. 614, 615, 0614, 0615, 714, 715, 0714, 0715 and 814 are the same as previously Recognized Cat. Nos. 624, 625, 0624, 0625, 724, 725, 0824, 0725 and 824, respectively, except the new cat. nos. with "1" have plain marking surfaces, whereas the older cat. nos. with "2" have painted marking surfaces.

PREFIX D:

D blocks are same as the basic blocks except screws are brass, nickel plated; and contacts (strap type and tubular type) are nickel plated.

SUFFIX B:

These blocks are same as the basic blocks except the tubular contacts are given a special deburring treatment.

PREFIX P:

These blocks are molded from polypropylene material, and those not preceded by P are molded from a nylon material as outlined in the descriptive pages of this report.

SUFFIX PS:

Cat. Nos. 724PS and 0724PS are identical to Cat. Nos. 724 and 0724 respectively, except with combination Phillips/slot head screws.

SUFFIX ERT:

These blocks are same as Prefix "D" blocks except the insulator bases are molded of Recognized plastic polyphenylene sulfide (Ryton R-4, Philip Chemical Co.) rated 220°C.

SUFFIX -2:

-2 blocks are the same as the -1 blocks except screws are brass with nickel plating and the contacts are nickel plated. (Applies only to strap type and tubular type blocks).

SUFFIX -BU:

Optional marking for models 814, 824, D814 that designates a white painted surface to allow marking.

| <u>Cat. Nos.</u> | <u>Similar Cat. No.</u> | <u>Difference(s)</u> |
|------------------|-------------------------|---|
| 724 | 1546147-1 | Wire range 8-22 Sol/Str AWG and insulation CG943, barrier width of 1.2mm |
| 0724 | 1546148-1 | Wire range 8-22 Sol/Str AWG and insulation CG943, barrier width of 1.2mm |
| 725 | 1546234-1 | insulation CG943, barrier width of 1.2mm |
| 0715 | 1546235-1 | insulation CG943, barrier width of 1.2mm |
| 721 | 1546143-1 | insulation CG943, barrier width of 1.2mm |
| 0721 | 1546144-1 | insulation CG943, barrier width of 1.2mm |
| 627 | 1546149-1 | insulation CG943, barrier width of 1.2mm |
| 0627 | 1546150-1 | insulation CG943, barrier width of 1.2mm |
| 729 | 1546151-1 | insulation CG943, barrier width of 1.2mm |
| 0729 | 1546152-1 | insulation CG943, barrier width of 1.2mm |
| D724 | 1546147-2 | Wire range 8-22 Sol/Str AWG and insulation CG943, barrier width of 1.2mm |
| DO724 | 1546148-2 | Wire range 8-22 Sol/Str AWG and insulation CG943, barrier width of 1.2mm |
| D725 | 1546234-2 | insulation CG943, barrier width of 1.2mm |
| DO725 | 1546235-2 | insulation CG943, barrier width of 1.2mm |
| D721 | 1546143-2 | insulation CG943, barrier width of 1.2mm |
| DO721 | 1546144-2 | insulation CG943, barrier width of 1.2mm |
| BP035M | 3-1437394-6 | insulation CG943, barrier width of 1.2mm |

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of the combination is determined by Underwriters Laboratories Inc.

* Cat. Nos. 1546143, 1546144, 611, 618, 621, 628, 0611, 0618, 0621, 0628, 711, 718, 721, 728, 0711, 0718, 0721 and 0728 provide wire-binding screws for conductor termination.

Ratings -

| Cat. Nos. | Max Amperes | Wire Sizes AWG Cu. | Max Voltage | | Torque lb-in |
|-------------------------|-------------|-----------------------|-------------|------------|-----------------|
| | | | Industrial | Commercial | |
| 611, 0611, 621, 0621 | 15(1) | No. 14-22(1) | 300 | 250 | 8 |
| 711, 0711, 721, 0721 | 15(1) | No. 14-22(1) | 600 | 600 | 12 |
| 618, 0618, 628, 0628 | 15 | No. 14-22 | 300 | 250 | 15 |
| 718, 0718, 728, 0728 | 15 | No. 14-22 | 600 | 600 | 9 |
| *1546143, 1546144 | 15(1) | No. 14-22(1) | 600 | 600 | 8 |
| *1546149, 1546150 | 20 A | - | 300 | 250 | - |
| *1546151, 1546152 | 20 A | No. 12-18 | 300 | 250 | 10 |
| *3-1437394-6 | 30 A | No. 10-22 | 600 | 600 | 10 |

(1) - Acceptable for 35 A max; factory-wiring only when used with No. 10 AWG wire preterminated with suitable ring terminals (prepared conductors).

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

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

Conditions of Acceptability -

- 1) The mounting suitability shall be determined in the end use.
- 2) Terminals - The wire-binding screws are suitable for field-wiring at 15 A, No. 14 AWG max.

The remaining cat. nos. have Listed pressure wire connectors suitable for field-wiring at the ratings specified.
- 3) Cat. Nos. 1546143, 1546144, 611, 0611, 621, 0621, 711, 0711, 721, 0721 have been evaluated in combination with prepared conductors (wires preterminated with suitable ring terminals) for a 35 A max rating for factory-wiring only.
- 4) The supporting bodies are molded from polypropylene nylon composition rated 105°C max or polyphenylene composition rated 200°C max. The acceptability of this material including any temperature rating is to be judged with respect to the requirements of the equipment in which the blocks are used. Plastic materials (QMFZ2) may be used interchangeably at 100°C.
- 5) The manufacturer may provide various parts such as marking tape or strips (for numbering and identifying each circuit) mounting channels and channel clamps (to receive stacked units) Snap-On or hinged covers, jumper strips (to interconnect circuits) and ganging rods (for use with optional Snap-On covers to interconnect several covers together). The suitability of these parts shall be investigated.
- 6) These devices may be acceptable for other than general industrial and commercial applications provided that spacings, heat rise, insulation, voltage, etc. are acceptable in the end-use.
- 7) The tightening torque for field wiring pressure wire connector terminals is recorded in the ratings section of this report. This torque value shall be marked on the end-use product for those categories which require torque markings for field terminated conductors.
- *8) Terminal blocks covered by this report may be provided with an optional insulated end piece. The end piece dimensions and insulating material (s) have not been evaluated. The suitability of the end piece, the end piece material (s), dimensions, and function shall be determined in the end-use equipment.