

CERTIFICATE OF COMPLIANCE

Certificate Number E60425
Report Reference E60425-20121204
Date 2022-January-04

Issued to: PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstrasse 8
Blomberg 32825 DE

This is to certify that
representative samples of TERMINAL BLOCKS - COMPONENT
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL1059 and C22.2 No. 158 Terminal Blocks

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



CERTIFICATE OF COMPLIANCE

Certificate Number E60425
Report Reference E60425-20121204
Date 2022-January-04

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

Component terminal blocks, Cat. Nos. RBO 10, RBO 12 and RBO 16 with or without Suffixes –FE, -HC or –FE-HC

Component terminal blocks, Cat. Nos. RBO 10-WD.

Component terminal blocks, Cat. Nos. RBO 8-WD may be followed by –one or –two digit number.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



DESCRIPTION

PRODUCT COVERED:

USR - Component terminal blocks, Cat. Nos. RBO 10, RBO 12 and RBO 16 with or without Suffixes -FE, -HC or -FE-HC

USR - Component terminal blocks, Cat. Nos. RBO 10-WD.

USR, CNR - Component terminal blocks, Cat. Nos. RBO 8-WD may be followed by -one or -two digit number.

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

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

GENERAL:

The terminal blocks covered by this report are DIN rail mounted or direct panel mounted stud and nut terminal blocks. When equipped with hard covers, covering the stud/nut connection they have the suffix -HC.

Application -

Commercial appliances (such as business and EDP equipment, etc.)

General Industrial (such as motor controllers, pushbutton stations, etc.)

Terminal Blocks rated 601-1500 V.

Type Wiring Termination - Stud and Nut

Type Wiring - Factory and Field Wiring

Ratings -

<u>Cat. No.</u>	<u>Wire Sizes</u> <u>AWG-kcmil</u>	<u>Wire</u> <u>Type</u>	<u>FW</u>	<u>TQ Range</u> <u>Lb-In</u>	<u>Max. V</u>	<u>Max. A</u>	<u>UG</u>
RBO 10	10-350	CU	2	89-177	600 1000	310	B, C E
RBO 10-FE	10-350	CU	2	89-177	600 1000	310	B, C E
RBO 10-HC	10-350	CU	2	89-177	600 1000	310	B, C E
RBO 10-HC-FE	10-350	CU	2	89-177	600 1000	310	B, C E
RBO 8-WD	N/A	CU	2	135-175/15-20	1000	175	E for USR, C for CNR
RBO 10-WD	10-350	CU	2	89-177	600 1000	310	B, C E
RBO 12	8-600	CU	2	124-266	600 1000	420	B, C E
RBO 12-FE	8-600	CU	2	124-266	600 1000	420	B, C E
RBO 12-HC	8-600	CU	2	124-266	600 1000	420	B, C E
RBO 12-HC-FE	8-600	CU	2	124-266	600 1000	420	B, C E
RBO 16	4-1000	CU	2	221-310	600 1000	540	B, C E
RBO 16-FE	4-1000	CU	2	221-310	600 1000	540	B, C E
RBO 16-HC	4-1000	CU	2	221-310	600 1000	540	B, C E
RBO 16-HC-FE	4-1000	CU	2	221-310	600 1000	540	B, C E

*

Ratings (Continued)

These stud and nut terminals blocks are intended for use with ring tongue terminals suitable for the specified wire size and ampacity.

The following Cat. Nos. have optional three-phase short circuit current ratings. The Terminal Blocks must be protected by the max ampere and class of overcurrent protective device noted below.

Cat. No.	Suitable Conductors Kcmil/AWG		Overcurrent Protection Fuse Required Class/Max Amp Rating							SCCR RMS Sym kA	Max Volts
	<u>Line</u>	<u>Load</u>	J	L	T	RK1	RK5	G	CC		
RBO 10, RBO 10-FE, RBO 10-HC, RBO 10-HC-FE	<u>10-350</u> kcmil	<u>10-350</u> kcmil	400	-	400	200	100	60	30	100	600
RBO 12, RBO 12-FE, RBO 12-HC, RBO 12-HC-FE	<u>8-600</u> kcmil	<u>8-600</u> kcmil	400	-	400	200	100	60	30	100	600
RBO 16, RBO 16-FE, RBO 16-HC, RBO 16-HC-FE	<u>4-1000</u> kcmil	<u>4-1000</u> kcmil	600	-	600	400	200	60	30	100	600

★

CAT. NO. NOMENCLATURE CODE:

Example: $\frac{\text{RBO}}{\text{A}} \quad \frac{10}{\text{B}} \quad \frac{-\text{FE}}{\text{C}}$

A - Basic Designation

RBO - Feed through terminal block with stud and nut connection

B - Stud Thread Size

10 - M10

12 - M12

16 - M16

C - Terminal Construction

None - Single DIN Rail Mountable Terminal Block

-FE - Multiple Interlocked DIN Rail Mountable Terminal Blocks

-HC - Single DIN Rail Mountable Terminal Block with Cover over
Termination Stud/Nuts-FE-HC - Multiple Interlocked DIN Rail Mountable Terminal Blocks with
Cover over Termination Stud/Nuts

Nomenclature: RBO 10-WD

RBO	X0	X1
A	B	C

A: RBO - Feed through terminal block with stud and nut connection

B: X0: 10 - Size in correlation to the bolt

C: with or without suffix X1: -WD - assembly of nut and washer

Note 1. With all colour variants are possible and it can be added at any position of nomenclature,

Note 2. In nomenclature we can use /, - and space in between every suffix.

Nomenclature: RBO 8-WD

RBO	8	WD	/XX
A	B	C	D

A - Basic Designation

RBO - Terminal Block equipped with stud and retention nut

B - Stud Thread Size

8 - M8

C - Terminal Construction

-WD - Wider Current Bar and Enclosure

D - Number of Terminal Blocks Assembled

None - Single Section

/XX - 2 - 12 Sections

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

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

Conditions of Acceptability -

1. The terminals are intended for use with suitable ring type compression wire connectors crimped to the ends of wires before securing the connectors to the stud-and-nut terminals. The suitability of the ring terminals, including spacings between terminals, shall be determined in the end use equipment.

2. The insulating bodies are molded of Recognized Component polymeric materials (QMFZ2). Identification of these plastic materials by manufacturer's name, Grade designation, maximum operating temperature, and flame rating are specified in the "Section General" pages in this Procedure. The acceptability of these materials shall be judged in the end use application. All insulating materials may be used interchangeably at 105°C max. operating temperature.

When the insulation parts are molded or fabricated from regrind materials, blending of material, use of pigment, colorants, flame retardants, or similar means, the parts shall be Recognized Component Fabricated Parts (QMMY2) and meet the following criteria. When a Recognized Component Fabricated Part is involved, the molder's ID should be on the part, on the parts carton or on a specification sheet with the carton. Also, on the part, shipping carton, specification sheet with the carton or invoice should be a parts ID (original equipment manufacturer's part designation), molding date and material ID.

3. The terminals have been investigated for use with copper conductors only.

4. When provided with insulating covers, the suitability of the covers shall be judged in the end-use application. The covers may be constructed from various plastics and the suitability of the plastic shall be investigated per the latest requirements of UL 746C if the cover is to be used in lieu of spacings.

5. The housing for Cat. Nos. RBO10, RBO12, and RBO16 with Suffixes rated 1000V is molded, Cat. Nos. RBO10, RBO12, RBO16 with Suffixes comply with requirements for terminal blocks rated more than 600V in UL1059 Standard.

6. The terminal block short-circuit ratings were determined for types RBO 10-HC (representing RBO 10 series), RBO 12-HC (representing RBO 12 series) and RBO 16-HC (representing RBO 16 series) based on testing with recognized class J limiters (representing other fuse types as rated and listed in the table in a minimum size enclosure of 18x18x6 inches. The suitability of smaller enclosures shall be determined in the end product.

7. The housing for Cat. No. RBO 8-WD with or without Suffixes rated 1000V is molded. Cat. No. RBO 8-WD with or without Suffixes comply with requirements for terminal blocks rated more than 600V in UL1059 Standard.