

CERTIFICATE OF COMPLIANCE

Certificate Number 20190731-E45172
Report Reference E45172-19850806
Issue Date 2019-JULY-31

Issued to: WAGO Kontakttechnik GmbH & Co. KG
Hansastrasse 27
32423 Minden GERMANY

**This certificate confirms that
representative samples of**

COMPONENT - TERMINAL BLOCKS
REFER ADDENDUM PAGE FOR MODELS.

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.

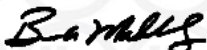
Standard(s) for Safety:
Additional Information:

Terminal Blocks, UL1059
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

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

USR, CNR Recognized Component terminal blocks, Cat. Nos. 285, with Suffixes -194, -195, -601, -602, -604, -605, -631, -632, -633, -634, -635, -636, -638, -639, -691, -992, -995, -134, -154, -407, -1182, -1183, -1185, -1184, -1186, -1188, -1190, -1189, -1181, -1161, -1163, -1164, -1165, -1167, -1168, -1169, -1156, -1158, -1160, -1162, -1166, -180, -181, -182, -183, -184, -185, -186, -187, -188, -189, -190, -191, -192, -193, -196, -198, -199, -1167/0999-950, -187/0999-950.

USR/CNR Recognized Component terminal blocks, Cat. Nos. 285, with Suffixes -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, -142, -143, -144, -145, -146, -147, -147/0999-950, -148, -149, -150, -151, -152, -153, -155, -156, -158, 159, -427, -447, -935, -950.

USR, CNR Recognized Component – Protective Conductor Terminal Block, Cat. No. 285-197, -607, -637, -0197/0999-0950.

USR/CNR Recognized Component – Protective Conductor Terminal Block, Cat. No. 285-137, -137/0999-950, -157, -157/0999-950, -1187, -1187/0999-0950.

USR/CNR Recognized Component – Terminal Block accessories: Jumper, Cat. No. 285-435, -450, -495, -1171; Power Tap, Cat. No. 285-1175; Step-down Jumper, Cat. No. 285-430.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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File E45172
Project 85ME5768

August 6, 1985

REPORT

On

COMPONENT - TERMINAL BLOCKS

Wago Kontakttechnik GmbH
Minden/Westf, Fed. Rep. of Germany

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DESCRIPTION

PRODUCT COVERED:

USR, CNR Recognized Component terminal blocks, Cat. Nos. 285, with Suffixes -194, -195, -601, -602, -604, -605, **-631, -632, -633**, -634, -635, -**636, -638, -639**, -691, -992, -995, -134, -154, -407, -1182, -1183, -1185, -1184, -1186, -1188, -1190, -1189, -1181, -1161, -1163, -1164, -1165, -1167, -1168, -1169, -1156, -1158, -1160, -1162, -1166, -180, -181, -182, -183, -184, -185, -186, -187, -188, -189, -190, -191, -192, -193, -196, -198, -199, -1167/0999-950, -187/0999-950.

USR/CNR Recognized Component terminal blocks, Cat. Nos. 285, with Suffixes -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, -142, -143, -144, -145, -146, -147, -147/0999-950, -148, -149, -150, -151, -152, -153, -155, -156, -158, 159, -427, -447, -935, -950.

USR, CNR Recognized Component - Protective Conductor Terminal Block, Cat. No. 285-197, -607, -637, -0197/0999-0950.

USR/CNR Recognized Component - Protective Conductor Terminal Block, Cat. No. 285-137, -137/0999-950, -157, -157/0999-950, -1187, -1187/0999-0950.

USR/CNR Recognized Component - Terminal Block accessories: Jumper, Cat. No. 285-435, -450, -495, -1171; Power Tap, Cat. No. 285-1175; Step-down Jumper, Cat. No. 285-430.

GENERAL CHARACTER AND USE:

The terminal blocks covered by this report are intended for use in the following applications and within the ratings specified.

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.

Terminal Type (Cat Nos. 285-130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, -142, -143, -144, -145, -146, -147, -147/0999-0950, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -157/0999-0950, -158, -159, -180, -181, -182, -183, -184, -185, -186, -187, -188, -189, -190, -191, -192, -193, -194, -195, -196, -197, -0197/0999-0950, -995) -198, -199, -447, -427, -634, -635, -950, -1156, -1158, -1160, -1161, -1162, -1163, -1164, -1165, -1166, -1167, -1167/0999-0950, -1168, -1169, -1181, -1182, -1183, -1184, -1185, -1186, -1187, -1187/0999-0950, -1188, -1189, -1190

Front

Back

Spring Clamp Type (Wire Secured by Spring Type Action)

Spring Clamp Type (Wire Secured by Spring Type Action)

Terminal Type (All other Cat. Nos.) -

Front

Back

Cage Clamp Type (Wire Secured by Spring Type Action)

Cage Clamp Type (Wire Secured by Spring Type Action)

Type Wiring - Field and factory wiring.

con't

Cat. No.	Wire Range AWG/kcmil	Wire Type, [Cu] [Al] [CU/AL]	F W	Torque [in- lbs]	Voltage V	Current A	UG	CA
285-637 (1)	10-2	Cu	2	-	-	-	B,C	2 (105) , 4
285-691 285-992	10-2	Cu	2	-	600	115	B,C	2 (105) , 4
285-130 (2) , 285-131 (2) , 285-132 (2) , 285-133 (2) , 285-134 (2) , 285-135 (2) , 285-136 (2) , 285-138 (2) , 285-139 (2) , 285-935 (2) ,	8-2	Cu	2	-	600	115	B,C	2 (105) , 4
					880	115	E	2 (105) , 4
285-427	24-10	Cu	2	-	600	30	B,C	2 (105) , 4
					880	30	E	2 (105) , 4
285-137, 285-137/0999-950	8-2	Cu	2	-	-	-	B,C, E	2 (105) , 4
285-140, 285-141, 285-142, 285-143, 285-144, 285-145, 285-146, 285-147, 285-147/0999-950, 285-148, 285-149, 285-150 (2) , 285-151 (2) , 285-152 (2) , 285-153 (2) , 285-154 (2) , 285-155 (2) , 285-156 (2) , 285-158 (2) , 285-159 (2) , 285-950 (2) ,	8-2/0	Cu	2	-	600	150	B,C	2 (105) , 4
					880	150	E	2 (105) , 4
285-447	24-10	Cu	2	-	600	30	B,C	2 (105) , 4
					880	30	E	2 (105) , 4
285-157, 285-157/0999-950	8-1/0	Cu	2	-	-	-	B,C, E	2 (105) , 4
					1000	310	E	2 (105) , 4

con't

Cat. No.	Wire Range AWG/kcmil	Wire Type, [Cu] [Al] [CU/AL]	FW	Torque [in- lbs]	Voltage V	Current A	UG	CA
285-407	24-8	Cu	2	-	600	50	B,C	2(105),4
*285-1156, 285-1158, 285-1160, 285-1161, 285-1162, 285-1163, 285-1164, 285-1165, 285-1166, 285-1167, 285- 1167/0999- 950, 285-1168, 285-1169, 285-1181, 285-1182, 285-1183, 285-1184 , 285-1185, 285-1186, 285-1188, 285-1189, 285-1190,	1/0-350 str	Cu	2	-	600	310	B,C	2(105),4
					1000	310	E	2(105),4
285-1187, 285- 1187/0999- 0950	1/0-250 str	Cu	2	-	-	-	B,C,E	2(105),4
285-1175 (3)	24-8	Cu	2	-	600	50	B,C	2(105),4

(1) May be followed by /999-950.

Suffixes - Suffix /999-950 is assigned for commercial purposes. Cat. Nos. assigned this Suffix are identical to the same Cat. No. without Suffix /999-950.

(2) Cat. No. 285-130, 285-131, 285-132, 285-133, 285-134, 285-135, 285-136, 285-138, 285-139, 285-935, can be used with Jumper Cat. No. 285-435 - refer to Condition of Acceptability No. 19.

* Cat. No. 285-150, **285-151**, 285-152, 285-153, 285-154, 285-155, 285-156, 285-158, 285-159, 285-950 can be used with Jumper Cat. No. 285-450 - refer to Condition of Acceptability No. 20.

(3) Cat. No. 285-1181, -1182, -1183, 1184, -1185, -1186, -1188, -1189, -1190, -1156, -1158, -1160, -1161, -1162, -1163, -1164, -1165, -1166, -1167, -1168, and -1169 can be used with Power Tap, Cat. No.: 285-1175 - refer to Condition of Acceptability No. 21.

Cat. No. 285-130, 285-131, 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138, 285-139 and 285-935 and Series 2010 and 2016 can be used with Step-down Jumper, Cat. No.: 285-430 - refer to Condition of Acceptability No. 22.

Cat. No. 285-1156, -1158, -1160, -1161, -1162, -1163, -1164, -1165, -1166, -1167, -1168, -1169, 1181, -1182, -1183, -1184, -1185, , -1186, -1187, -1188, -1189 and -1190 can be used with Adjacent Jumpers, Cat. No.: 285-1171 - refer to Condition of Acceptability No. 23.

Cat. No. 285-195, -190, -192, -193, -196, -198, -194, -995, -181, -180, -182, -185, -186, -189, -183, -184, -187, -188 and -199 can be used with Adjacent Jumpers, Cat. No.: 285-495 - refer to Condition of Acceptability No. 24.

The following terminal block model has an optional 3-phase short circuit current rating evaluated for use with copper conductors only. The terminal block 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	Volts Max
	Line	Load	J	T	RK1	RK5	G	CC		
285-130, 285-131, 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138, 285-139, 285-935	6-2 AWG	6-2 AWG	200	200	100	30	60	30	100	600
285-140, 285-141, 285-142, 285-143, 285-144, 285-145, 285-146, 285-147, 285-148, 285-149, 285-150, 285-151, 285-152, 285-153, 285-154, 285-155, 285-156, 285-158, 285-159, 285-950	6-2/0 AWG	6-2/0 AWG	200	200	100	30	60	30	100	600
285-141, 285-142 285-143, 285- 144, 285-145 , 285-146 , 285-147, 285-148, 285-149 285-150, 285-151, 285-152, 285-153, 285-154, 285-155, 285-156, 285-158, 285-159, 285-950	1/0-2/0 AWG	1/0-2/0 AWG	400	400	200	100	60	30	100	600

*

Cat. No.	Suitable Conductors kcmil/AWG		Overcurrent Protection Fuse Required Class/Max Amp Rating						SCCR, RMS Sym, kA	Volts Max
	Line	Load	J	T	RK1	RK5	G	CC		
285-157, 285- 157/999-950	1/0-2/0 AWG	1/0-2/0 AWG	200	200	100	30	60	30	100	600
285-157, 285- 157/999/950	1/0 AWG	1/0 AWG	400	400	200	100	60	30	100	600

285-197, 285- 0197/0999- 0950	3-4/0 AWG	3-4/0 AWG	400	400	200	100	60	30	100	600
*285-631 285-632 285-633 285-634, 285-635, 285-636 285-638 285-639 285-992, 285-637	8-2 AWG	8-2 AWG	200	200	100	30	60	30	100	600
285-180, 285-181, 285-182, 285-183, 285-184, 285-185, 285-186, 285-187, 285-188, 285-189, 285-190, 285-191, 285-192, 285-193, 285-194, 285-195, 285-196, 285-198, 285-199, 285-995	1/0-3/0 AWG	1/0-3/0 AWG	300	300	200	100	60	30	100	600
*285-1156, 285-1158, 285-1160, 285-1161, 285-1162, 285-1163, 285-1164, 285-1165, 285-1166, 285-1167, 285- 1167/0999- 950, 285-1168, 285-1169, 285-1181, 285-1182, 285-1183, 285-1184, 285-1185, 285-1186, 285-1187,	350-1/0	350-1/0	400	400	200	100	60	30	100	600

285-150, 285-151 285-152, 285-153, 285-154, 285-155, 285-156, 285-157, 285-158, 285-950 with/ 285- 447	6 - 2/0	6 - 2/0 main w/ 10 awg in power tap(1)	200	200	100	30	60	30	100	600
285-130, 285-131, 285-132, 285-133, 285-134 285-135, 285-136, 285-137, 285-138, 285-139, w/ 285-427	4 - 2	4 - 2 w/ 10 awg in power tap(1)	200	200	100	30	60	30	100	600

(1) Main conductor must be used in addition to the power tap accessory.

Cat. No.	Suitable Conductors kcmil/AWG		Overcurrent Protection Circuit Breaker Required			SCCR, RMS Sym, kA	Volts Max
	Line	Load	Mfr	Type	Max Amp		
285-130, 285-131 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138, 285-935	4	4	Eaton	JGMPS160G	160	35	480
285-130, 285-131 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138, 285-935	2-6	2-6	Schneider	HGL36150M38X	150	35	480
285-130, 285-131 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138, 285-935	2-6	2-6	Allen Bradley	140MG-G8P-xxx	125	65	480
285-130, 285-131, 285-132, 285-133, 285-134, 285-135, 285-136, 285-137, 285-138	2-8 str	2-8 str	Mitsubishi	NV100-SRU	70	35	240
	2 str	2 str	Fuji Electric	BW100EAGU	70	14	240

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Products designated USR have been investigated using requirements contained in UL 1059, the Standard for Terminal Blocks.

Products designated CNR have been investigated using requirements contained in Canadian Standard CSA C22.2 No. 158, Terminal Blocks.

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 mounting suitability shall be determined in the end-use.
2. These grounding blocks are provided with spring type terminals which comply with field-wiring requirements in UL486E Standard For Equipment Wiring Terminals, 3rd Edition.
3. Insulating Material - R/C Plastic (QMFZ2). When indicated in the specific description pages below, refer to Sec. Gen. for manufacturer and type. The use of these materials shall be judged in the end-use application. These materials may be used interchangeably at 105°C.
4. The grounding terminals for Cat. Nos. 285-607, -637 comply with Short Time Current requirements in UL 467 Standard for Grounding and Bonding Equipment, Seventh Edition. These grounding terminals are intended for use with the manufacturer's copper alloy rail Part No. 210-198 described in Fig.2.
5. The suitability of Cat. Nos. 285-197, **-0197/0999-0950**, -607 and -637 mounted on steel rails shall be determined in the end-use equipment with regard to grounding continuity.
6. Accessories: The manufacturer may provide marking strips, test plug adapters, jumpers, tools etc., the suitability of which shall be determined in the end use.
- * 7. The Protective Conductor Terminal Block Cat. Nos. 285-197, -**0197/0999-0950** comply with Short Time Current Sequence (Commercial and Industrial Applications) requirements in UL1059, Terminal Block, Third Edition. This grounding terminal is intended for use with the manufacturer's copper alloy rail Part No. 210-198 described in Fig. 2.
8. The terminal block short-circuit rating on Cat. Nos. 285-197, **-0197/0999-0950** was determined based on testing in a minimum size enclosure measuring 16 x 14 x 8.25 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.
9. The Protective Conductor Terminal Block Cat. Nos. 285-197, ***-0197/0999-0950** comply with Short Time Current Sequence (Commercial and Industrial Applications) requirements in UL1059, Terminal Block, Fourth Edition. This grounding terminal is intended for use with DIN 35x15 / 2.3mm thick copper rail. The suitability of the device to carry fault current on a different mounting means shall be determined in the end use application.

10. The tap type terminal block, Cat. No. 285-427, has been tested in conjunction with Cat. Nos. 285-135, 285-134 , 285-137 and has been assigned the indicated ratings. The suitability of this device to be used with different mating devices shall be determined in the end-use application.

11. The tap type terminal block, Cat. No. 285-447, has been tested in conjunction with Cat. Nos. 285-150, 285-154 , 285-157 and has been assigned the indicated ratings. The suitability of this device to be used with different mating devices shall be determined in the end-use application.

12. The tap type terminal block, Cat. No. 285-407, has been tested in conjunction with Cat. Nos. 285-194, 285-195, 285-197, 285-0197/0999-0950, 285-995 and has been assigned the indicated ratings. The current rating for this device was assigned based on the Temperature Test carried out between the employed spring terminals. The suitability of this device to be used with different mating devices shall be determined in the end-use application.

13. The terminal block short-circuit rating on Cat. Nos. 285-134 and 285-135 were determined based on testing in a minimum size enclosure measuring 12 x 10 x 8.25 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.

14. The terminal block short-circuit rating on Cat. Nos. 285-150, 285-154, 285-197 and 285-0197/0999-0950 were determined based on testing in a minimum size enclosure measuring 16 x 14 x 8.25 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.

15. The terminal block short-circuit rating on Cat. Nos. **285-631, 285-632, 285-633**, 285-635, 285-634, **285-636, 285-638, 285-639**, 285-992, and 285-637 were determined based on testing in a minimum size enclosure measuring 16 x 14 x 8.25 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.

16. The terminal block short-circuit rating on Cat. No. 285-157 determined based on testing in a minimum size enclosure measuring 16 x 14 x 8.25 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.

17. The terminal block short-circuit rating on Cat. Nos. 285-195 and 285-194 were determined based on testing in a minimum size enclosure measuring 24 x 20 x 10 inches. The suitability of smaller enclosures shall be determined in the end-use investigation.

18. The Protective Conductor Terminal Block, Cat. No. listed in the table below covered by this report complies with Short Time Current Sequence requirements (clause 50) in UL1059 Standard for Terminal Block, Fourth Edition, revised December 15, 2006. This grounding terminal is intended for use with the specified DIN mounting rails (Width by Height by Thick / Material type):

Cat. No.	DIN mounting rail		
	Width by Height, mm	Thickness, mm	Material type
285-607, 285-637	35 x 15	2.3	Steel
285-607, 285-637, 285-1187, 285-1187/0999-0950	35 x 15	2.3	Copper

19. Accessories: The terminal block Jumper, Cat. No. 285-435, has been tested in conjunction with Cat. Nos. 285-135. The suitability of this device to be used with different mating devices shall be determined in the end-use application.

20. Accessories: The terminal block Jumper, Cat. No. 285-450, has been tested in conjunction with Cat. Nos. 285-150. The suitability of this device to be used with different mating devices shall be determined in the end-use application.

21. Accessories: The terminal block Power Tap, Cat. No.: 285-1175, has been tested in conjunction with Cat. Nos. 285-1185 that is representative of Cat. No(s). 285-1184, -1181, -1161, -1163, -1164, -1165, -1167, -1168, and -1169. The suitability of this device to be used with different mating devices shall be determined in the end-use application. The maximum current rating for Power Tap, Cat. No.: 285-1175 is 50A.

22. Accessories: The terminal block Step-down Jumper, Cat. No.: 285-430, has been tested in conjunction with Cat. No. 285-135, 2010-1201 and 2016-1201 that are representative for Cat. No. 285-134, Series 2000 and 2016. The suitability of this device to be used with different mating devices shall be determined in the end-use application. The maximum current rating for Step-down Jumper, Cat. No.: 285-430 is 90A.

23. Accessories: The terminal block Adjacent Jumpers, Cat. No.: 285-1171, has been tested in conjunction with Cat. Nos. 285-1185 that is representative of Cat. No(s). 285-1184, -1181, -1161, -1163, -1164, -1165, -1167, -1168, and -1169. The suitability of this device to be used with different mating devices shall be determined in the end-use application. The maximum current rating for Adjacent Jumpers, Cat. No.: 285-1171 is 310A.

24. Accessories: The terminal block Adjacent Jumpers, Cat. No(s): 285-495, has been tested in conjunction with Cat. No. 285-195 that is representative of Cat. No(s). 285-194, -995, -181, -183, -184, -187, -188 and -199. The suitability of this device to be used with different mating devices shall be determined in the end-use application. The maximum current rating for Adjacent Jumpers, Cat. No(s): 285-495 is 200A.

25. Terminal Block Item numbers may be denoted with or without leading zeroes, e.g. 285-195 or 0285-0195.

26. The terminal block short-circuit rating with Overcurrent Protection Circuit Breakers: Mitsubishi, type NV100-SRU and Fuji electric, type BW100EAGU on Cat. Nos. 285-130, 285-131, 285-132, 285-133, 285-134, 285-135, 285-136, 285-138, 285-139 was determined based on testing on a metal, test plate according to Supplement SA.