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REPORT

on

COMPONENT - TERMINAL BLOCKS

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Minden/Westf., Germany

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DESCRIPTION

PRODUCT COVERED:

Terminal Blocks, Cat. No. Series 280, 281, 282 and 283 with suffix numbers contained herein.

GENERAL

These are single-pole terminal blocks which provide screwless terminals (cage-type clamping springs) for termination of solid and stranded copper wires. Individual poles are grouped on a mounting rail to form multi-pole units of indefinite length. These devices are intended for general industrial and commercial applications, and are suitable for field and factory wiring. The catalog numbers denote the clamping spring size. The suffix numbers denote the following variations of construction.

Catalog Number - Suffixes	Description
282 - 122	5 by 20 mm fused, without indicator, 35 mm mtg. rail.
- 124	5 by 20 mm fused, with neon indicator 35 mm mtg. rail.
- 126	5 by 25 mm fused, with visual indicator, 35 mm mtg. rail.
- 128	1/4 by 1-1/4 in fused, without indicator, 35 mm mtg. rail.
- 128/281-413	2-conductor fused type, 24 V, circuit 1 with LED blown fuse indicator circuit, color gray.
- 128/281-417	2-conductor fused type, 250 V, circuit 1 with LED blown fuse indicator circuit, color gray.
- 128/281-418	2-conductor fused type, 120 V, circuit 1 with LED blown fuse indicator circuit, color gray.
Cat. Nos. 282-123, -125, -127, -129 are the same as Cat. Nos. 282-122, -124, -126, -128 respectively, except on 32 mm mtg. rail.	
282 - 131	Disconnect link with test plug sockets, 35 mm rail.
- 133	Through terminal with jumper, 35 mm rail.
- 135	Disconnect link without test plug sockets, 35 mm rail.
- 140	Ground (Earth) Conductor Disconnect Terminal Blocks (AWG 24 - 10) AC/DC 24 V grey, Two parted construction.

Cat. Nos. 282-132, -134, -136 are the same as Cat. Nos. 282-131, -133, -135 respectively, except on 32 mm mtg. rail.

Cat. No.	Suffixes	Description
282	- 699	3-conductor through terminal block, color gray.
	- 694	3-conductor through terminal block, color blue.
	- 697	2-conductor disconnect type, color gray
	- 695	2-conductor disconnect type, color blue.
	- 696	2-conductor fused type, color gray.
	- 698/281-429	2-conductor fused type, 12 V, circuit 1 with LED blown fuse indicator circuit, color gray.
	- 698/281-449	2-conductor fused type, 12 V, circuit 2 with LED blown fuse indicator circuit, color gray.
	- 698/281-413	2-conductor fused type, 24 V, circuit 1 with LED blown fuse indicator circuit, color gray.
	- 698/281-434	2-conductor fused type, 24 V, circuit 2 with LED blown fuse indicator circuit, color gray.
	- 638	Ground (Earth) Conductor Disconnect Terminal Blocks (AWG 10) / 30 A AC/DC 120 V grey
	- 639	Ground (Earth) Conductor Disconnect Terminal Blocks (AWG 10) / 30 A AC/DC 230 V grey
	- 640	Ground (Earth) Conductor Disconnect Terminal Blocks (AWG 10) / 30 A AC/DC 24 V grey
	- 641	Ground (Earth) Conductor Disconnect Terminal Blocks (AWG 10) / 30 A AC/DC 48 V grey

Cat. No. - Suffix	Description
280 - 621	4-wire through terminal (commoned)
- 626	4-wire through terminal (not commoned)
- 626/281-418	4-wire through terminal (not commoned) 110 V neon lamp
- 626/281-417	4-wire through terminal (not commoned) 220 V neon lamp
*280 - 826 marking	Same as 280-626 except color and/or variation.
281 - 601, -604, -691 standard	2-wire through terminal (commoned) body
282 - 601, -604, -691	2-wire through terminal (commoned)
283 - 601, -604, -691	2-wire through terminal (commoned)
281-622	Hinged disconnect fuse-sizes 5 x 20 mm (3/16 x 25/32 in), 5 x 25 mm (3/16 x 1 in) 5 x 30 mm (3/16 x 1-3/16 in)
281-622/281-417	Same as basic Cat. No., also provided with a 220 V neon lamp indicator.
281-622/281-418	Same as basic Cat. No., also provided with a 110 V neon lamp indicator.
281-622/281-541	Same as basic Cat. No., also provided with a 30 V max LED indicator.
281-622/281-542	Same as basic Cat. No., also provided with a 65 V max LED indicator.
281-623	Hinged disconnect fuse-sizes 1/4 x 1 in (6.35 x 25.40 mm), 1/4 x 1-1/4 in (6.35 x 31.75 mm)
281-623/281-417	Same as basic Cat. No., provided with a 220 V neon lamp indicator.
281-623/281-418	Same as basic Cat. No., provided with a 110 V neon lamp indicator
281-623/281-541	Same as basic Cat. No., provided with a 30 V max LED indicator.
281-623/281-542	Same as basic Cat. No., provided with a 65 V max LED indicator.

Cat. No. - Suffix	Description
281-611	Fused disconnect, 5 x 20 mm fuse size, grey body.
281-616	Fused disconnect, 5 x 20 mm fuse size, orange body.
281-624	Fused disconnect, 5 x 20 mm fuse size, pivotable fuse, grey body.
281-672	Fused disconnect, 5 x 20 mm fuse size, pivotable fuse, orange body.
281-612	Fused disconnect, 5 x 25 mm fuse size, grey body.
281-611/281-541	Fused disconnect, 5 x 20 mm fuse size, LED fuse indicator, 15-30 V, grey body.
281-611/281-542	Fused disconnect, 5 x 20 mm fuse size, LED fuse indicator, 30-65 V, grey body.
281-612/281-541	Fused disconnect, 5 x 25 mm fuse size, LED fuse indicator, 15-30 V, grey body.
281-612/281-542	Fused disconnect, 5 x 25 mm fuse size, LED fuse indicator, 30-65 V, grey body.
281-611/281-417	Fused disconnect, 5 x 20 mm fuse size, neon fuse indicator, 220 V, grey body.
281-611/281-418	Fused disconnect, 5 x 20 mm fuse size, neon fuse indicator, 110 V, grey body.
281-612/281-417	Fused disconnect, 5 x 25 mm fuse size, neon fuse indicator, 220 V, grey body.
281-612/281-418	Fused disconnect, 5 x 25 mm fuse size, neon fuse indicator, 110 V, grey body.
281-613	Fused disconnect, 1/4 x 1 in fuse size, grey body.
281-613/281-541	Fused disconnect, 1/4 x 1 in fuse size, LED fuse indicator, 15-30 V, grey body.
281-613/281-542	Fused disconnect, 1/4 x 1 in fuse size, LED fuse indicator, 30-65 V, grey body.
281-613/281-417	Fused disconnect, 1/4 x 1 in fuse size, neon fuse indicator, 220 V, grey body.
281-613/281-418	Fused disconnect, 1/4 x 1 in fuse size, neon fuse indicator, 110 V, grey body.
281-901,-904,-991	2-wire through terminal (commoned), high profile body.
*281-902,-903,-905,-906	Same as 281-901 except color.

The above Cat. Nos. are 35 mm rail mounted.

280-623/281-411	4-wire, diode.
280-603/281-411	2-wire, diode.
280-624/281-413	4-wire, illuminated, diode, 24 V dc.
280-624/281-414	4-wire, illuminated, diode, 48 V dc.
280-624/281-415	4-wire, illuminated, diode, 24 V dc.
280-624/281-416	4-wire, illuminated, diode, 48 V dc.

The above catalog numbers are mounted on 35 mm rail.

280 - 625/281-412	4-wire, variable resistor
281 - 605/281-412	2-wire, variable resistor
280 - 627	4-wire, disconnect plug, test plug sockets
280 - 622	4-wire, disconnect plug, without test plug sockets

The above catalog numbers are mounted on 35 mm rail.

Ratings - The wire ranges for Cat. Nos. 280, 281, 282 and 283 are No. 14-26 AWG, 12-26 AWG, 10-24 AWG and 6-24 AWG respectively. Additional ratings tabulated below.

Catalog Number - Suffixes

282 - 122 through -127 incl. -10 A, 600 V max, not to exceed fuse rating.

282 - 128, -129, -10 A, 600 V max, not to exceed fuse rating.

282 - 131 through -136, incl. -25 A, 300 V max.

282 - 694 through -699 incl. -30 A, 600 V max, not to exceed fuse rating

280 - 621 - 15 A, 600 V max.

280 - 626 - 15 A, 600 V max.

280 - 626/281-418 - 15 A, 600 V max.

280 - 626/281-417 - 15 A, 600 V max.

281 - 601, -604, -691 - 20 A, 600 V max.

* 282 - 601, -604, -30 A, 600 V max.

283 - 601, -604 - 65 A, 600 V max.

281 - 901, -904, -991 - 20 A, 600 V max.

280 - 623/281-411 - 1 A max (IN4007 diode)

281 - 603/281-411 - 1 A max (IN4007 diode)

280 - 624/281-413 - 20 mA, 24 V dc

280 - 624/281-414 - 20 mA, 48 V dc

280 - 624/281-415 - 15 A, 24 V ac

280 - 624/281-416 - 15 A, 48 V ac

280 - 625/281-412 - 120 mA, 80 V max

281 - 605/281-412 - 120 mA, 80 V max

280 - 627 - 15 A, 300 V max

280 - 622 - 15 A, 300 V max

Series 280, 281, 283, may be provided with the following Suffix Nos. denoting light grey color, and are otherwise identical to the Suffix No. specified.

Cat./Suffix Nos.
(Light Grey Body)

Same as Cat./Suffix No.

280-989

280-626

280-995

280-826

281-992

281-901

283-691

283-601

Catalog Number - Suffixes Cont'd.

281 - 622 - 623 - 10 A, 600 V max, No. 28-12 SOL/STR AWG
281 - 622/281-417,
281 - 623/281-417 - 10 A, 220 V max, No. 28-12 SOL/STR AGW
281 - 622/281-418,
281 - 623/281-418 - 10 A, 110 V max, No. 28-12 SOL/STR AWG
281 - 622/281-541,
281 - 623/281-541 - 10 A, 30 V dc max, No. 28-12 SOL/STR AWG
281 - 622/281-542,
281 - 623/281-542 - 10 A, 65 V dc max, No. 28-12 SOL/STR AWG
281 - 624 - 16 A, 600 V max, No. 28-12 SOL/STR AWG

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. These wiring terminals have been investigated for field wiring and factory wiring applications.
3. These wiring terminals are suitable for use with stranded and solid copper wires of the specified AWG sizes.
4. The disconnect type terminal blocks are not for current interruption.
5. Indicating lamps, diodes and resistors have not been investigated. The suitability of these components is to be determined in the end-use.
6. See "CONSTRUCTION DETAILS" for insulating materials.
7. Accessories such as jumpers, adapters, marking strips, are to be investigated in the end-use equipment.
8. These devices may be suitable for other than industrial and commercial applications provided that spacings, heat rise, insulation, etc, are acceptable in the end-use.
9. The suitability of fuses used with Cat. Nos. 281 and 282 fused types shall be determined in the end-use equipment. The need for fuse replacement markings shall be determined in the end-use equipment investigation.
10. The terminal block short-circuit rating on Cat. Nos. 280-603, 280-621, 280-626, 280-826, 280-989, 280-995, 281-601, 281-604, 281-691, 281-901, 281-902, 281-903, 281-904, 281-905, 281-906, 281-992, 282-601, 282-604, 282-691, 283-601, 283-604 and 283-691 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.

Conditions of Acceptability (continued)-

11. The terminal block short-circuit rating on Cat. Nos. 282-697, 282-695, 282-699, and 282-694 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.

The following terminal block models have optional 3-phase short circuit current rating evaluated for use with copper conductors only. 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	Volts Max
	Line	Load	J	T	RK1	RK5	G	CC		
280-603 280-621 280-626 280-826 280-989 280-995 281-601 281-604 281-691 281-901 281-902 281-903 281-904 281-905 281-906 281-992	14-12 AWG	14-12 AWG	100	100	60	30	60	30	100	600
282-601 282-604 282-691	14-10 AWG	14-10 AWG	100	100	60	30	60	30	100	600
283-601 283-604 283-691	14-6 AWG	14-6 AWG	100	100	60	30	60	30	100	600
282-694 282-695 282-697 282-699	14-10 AWG	14-10 AWG	60	60	-	-	50	30	100	600