

POWER TERMINAL BLOCKS

TECHNICAL DATA

Rockwell Automation introduces updated ratings for a number of Power Terminal Blocks.

These updated ratings include new short circuit current withstand ratings following updated guidelines described for UL1059 products.

The updated UL requirements permit terminal blocks to be tested with short circuit protection devices (fuses and circuit breakers). When the terminal block, fuse or circuit breaker, and wires are applied together, the terminal block may be rated with a short circuit current rating (withstand). This rating may be related to the application of specific fuse or circuit breaker selected and the wire size for an application.

SHORT CIRCUIT CURRENT RATINGS (SCCR)

Per the requirements of the 2005 National Electric Code (NEC) and UL508A (effective April 25, 2006), many electrical panels must be rated for their Short Circuit Withstand Rating. Analyzing the SCCR of individual components, and the associated branch and feeder overcurrent devices is a method of determining the SCCR of an electrical assembly.

UL Standard 508A permits a terminal block to have a 10,000 A withstand capability without any additional testing.

BULLETIN 1492-PD SCCR DATA FOR USE WITH FUSES AND CIRCUIT BREAKERS



UL1059 TERMINAL BLOCK

CERTIFIED FOR HIGH FAULT SHORT CIRCUIT CURRENT RATINGS

UL CATEGORY CODE XCFR2

UL FILE NUMBER E40735

STANDARD PRODUCT

Rockwell Automation has tested a number of the 1492-PD Power Terminal blocks to determine their SCCR related to the new testing requirements. These are the standard Power Terminal Blocks that have been used in Industrial Control Panels.

The new ratings for these blocks permit their continued use in panels where the higher SCCR ratings are required.

HIGH FAULT SCCR RATINGS
– UP TO 200,000 A
CERTIFIED TO UL REQUIREMENTS
– XCFR2
STANDARD PRODUCT

1492-PD High SCCR Ratings (with fuses)					Per UL 1059 XCFR2.E40735									
Terminal Block Description					High SCCR Ratings Conditions ⁽¹⁾								SCCR ⁽²⁾	
Cat. No. (connector material)	Number of Poles	Amp Rating	Rated Wire Range		Suitable Conductors ⁽³⁾		Overcurrent Protection ⁽⁴⁾ Fuse Required Class/Max Amp Rating						RMS Sym A	Volts Max
			Line wire/phase	Load wire/phase	Line	Load	J	T	RK1	RK5	G	CC		
Copper wire					Copper wire									
1492-PDM3111 Aluminum	3	115	#2 - #14 1	#2 - #14 1	#2 - #6	#2 - #6	200	200	200	100	60	30	100,000	600
					#8 - #10	#8 - #10	100	100	100	---	60	30	100,000	600
1492-PDM3141 Aluminum	3	115	#2 - #14 1	#10 - #18 4	#2 - #6	#10 - #14	200	200	200	100	60	30	200,000	600
					#8 - #10	#14	100	100	100	30	60	30	100,000	600
1492-50Y Aluminum	1	115	#2 - #14 1	#2 - #14 1	#2 - #6	#2 - #6	200	200	200	100	60	30	100,000	600
					#8 - #10	#8 - #10	100	100	100	---	60	30	100,000	600
1492-50X Aluminum	3	115	#2 - #14 1	#2 - #14 1	#2 - #6	#2 - #6	200	200	200	100	60	30	100,000	600
					#8 - #10	#8 - #10	100	100	100	---	60	30	100,000	600
1492-100Y Aluminum	1	175	2/0 - #14 1	2/0 - #14 1	#2/0 - #6	#2/0 - #6	200	200	200	100	60	30	65,000	600
					#2/0 - #6	#2/0 - #6	200	200	200	100	60	30	65,000	600
1492-100X Aluminum	3	175	2/0 - #14 1	2/0 - #14 1	#2/0 - #6	#2/0 - #6	200	200	200	100	60	30	65,000	600
					#2/0 - #6	#2/0 - #6	200	200	200	100	60	30	65,000	600
1492-PD3141 Aluminum	3	175	2/0 - #14 1	#4 - #14 4	2/0 - #6	#4 - #14	200	200	200	100	60	30	100,000	600
					2/0 - #6	#4 - #14	200	200	200	100	60	30	100,000	600
1492-PD3C141 Copper	3	175	2/0 - #14 1	#4 - #14 4	2/0 - #6	#4 - #14	200	200	200	100	60	30	100,000	600
					2/0 - #6	#4 - #14	200	200	200	100	60	30	100,000	600
1492-PD3163 Aluminum	3	335	400 kcmil - #6 1	#2 - #14 6	400 kcmil-3/0	#2 - #8	400	400	400	200	---	30	200,000	600
					#2 - #8	600	---	---	---	60	---	100,000	600	
			2/0 - #6	#2 - #14	200	200	200	100	---	60	---	200,000 100,000	600 600	
1492-PD3183 Aluminum	3	335	400 kcmil - #6 1	#2 - #14 8	400 kcmil-3/0	#2 - #8	400	400	400	200	60	30	100,000	600
					2/0 - #6	#2 - #14	200	200	200	100	60	30	100,000	600
1492-PD3263 Aluminum	3	350	2/0 - #14 2	#4 - #14 6	(2) 2/0 - #2	#4 - #8	400	400	400	100	60	30	100,000	600
					(2) #4 - #6	#10 - #14	200	200	200	100	60	30	100,000	600

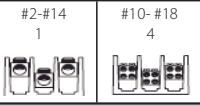
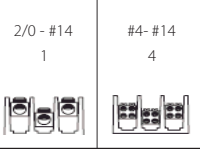
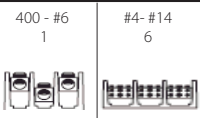
1492-PD
High SCCR Ratings
(with fuses)

Per UL 1059
XCFR2.E40735

Terminal Block Description					High SCCR Ratings Conditions ⁽¹⁾								SCCR ⁽²⁾	
Cat. No. (connector material)	Number of Poles	Amp Rating	Rated Wire Range		Suitable Conductors ⁽³⁾		Overcurrent Protection ⁽⁴⁾ Fuse Required Class/Max Amp Rating						RMS Sym A	Volts Max
			Line wire/phase	Load wire/phase	Line	Load	J	T	RK1	RK5	G	CC		
1492-PD3C63 Copper	3	350	2/0 - #14 2	#4 - #14 6	(2) 2/0 - #2	#4 - #8	400	400	400	100	60	30	100,000	600
					(2) #4 - #6	#10 - #14	200	200	200	100	60	30	100,000	600
1492-PD31123 Aluminum	3	380	500 kcmil - #4 1	#2 - #14 12	500 kcmil - 3/0	#2 - #8	400	400	400	200	60	30	100,000	600
					2/0 - #4	#2 - #14	200	200	200	100	60	30	100,000	600
1492-PD3C163 Copper	3	380	500 kcmil - #4 1	#2 - #14 6	500 kcmil - 3/0	#2 - #8	400	400	400	200	60	30	100,000	600
					2/0 - #4	#2 - #14	200	200	200	100	60	30	100,000	600
1492-BF Aluminum	1	420	600 kcmil - #4 1	600 kcmil - #4 1	600 kcmil - #2	600 kcmil - #2	600	600	-	-	-	-	50,000	600
					600 kcmil - #2	600 kcmil - #2	400	400	400	200	60	30	100,000	600
1492-PD3226 Aluminum	3	620	350 kcmil - #6 2	350 kcmil - #6 2	(2) 350 kcmil - #4	(2) 350 kcmil - #4	600	600	-	-	-	-	50,000	600
					(2) 350 kcmil - #4	(2) 350 kcmil - #4	400	400	400	200	60	30	100,000	600
1492-BG Aluminum	1	760	500 kcmil - #4 2	500 kcmil - #4 2	(2) 350 kcmil - #4	(2) 350 kcmil - #4	600	600	600	200	60	30	100,000	600
1492-PD3287 Aluminum	3	760	500 kcmil - #6 2	#2 - #14 8	(2) 500 kcmil - 250 kcmil	2/0 - #4	600	600	400	200	60	30	100,000	600
					(2) 4/0 - #4	2/0 - #10	600	600	-	-	-	-	50,000	600
						2/0 - #10	400	400	400	200	60	30	100,000	600
1492-PD3C287 Copper	3	760	500 kcmil - #6 2	#2 - #14 8	(2) 500 kcmil - 250 kcmil	2/0 - #4	600	600	400	200	60	30	100,000	600
					(2) 4/0 - #4	2/0 - #6	600	600	-	-	-	-	50,000	600
						2/0 - #6	400	400	400	200	60	30	100,000	600
1492-PD32127 Aluminum	3	760	500 kcmil - #6 2	#2 - #14 12	(2) 500 kcmil - 250 kcmil	#4 - #8	600	600	600	-	-	-	50,000	600
					(2) 4/0 - #4	#4 - #8	400	400	400	200	60	30	100,000	600
						#4 - #14	600	600	-	-	-	-	50,000	600
						#4 - #14	400	400	400	200	60	30	100,000	600
1492-PD3C2127 Copper	3	760	500 kcmil - #6 2	#2 - #14 12	(2) 500 kcmil - 250 kcmil	#2 - #8	600	600	600	-	-	-	50,000	600
					(2) 4/0 - #4	#2 - #8	400	400	400	200	60	30	100,000	600
						#2 - #14	600	600	-	-	-	-	50,000	600
						#2 - #14	400	400	400	200	60	30	100,000	600

- (1) Short-circuit Current Rating (SCCR) Conditions — Terminal blocks are considered suitable for use on a circuit capable of delivering not more than the stated SCCR at the maximum voltage specified when protected by the max ampere and Class of overcurrent protective device noted in the individual Recognitions. Short-circuit current ratings may be marked on the terminal block or on instructions provided with the terminal block. Short-circuit current ratings have been determined based on the terminal block's use within the minimum enclosure sizes as specified in Condition of Acceptability.
- (2) Short-circuit Current Rating, when noted additional conditions are provided. When larger overcurrent protection device of type or wire of different size is used, the Power Terminal block has a 10,000 amp withstand rating. Note: The rated wire range of terminals may exceed the restrictive wire range used to provide higher SCCR.
- (3) Size Range of Line and Load conductors suitable to maintain noted SCCR
- (4) Maximum Size of Line side overcurrent protection to provide noted SCCR

For Use with Circuit Breakers

1492-PD High SCCR Ratings (with circuit breakers)														
Terminal Block Description					High SCCR Ratings Conditions ⁽¹⁾							SCCR ⁽²⁾		
Cat. No. (connector material)	Number of Poles	Amp Rating	Rated Wire Range		Suitable Conductors ⁽³⁾		Overcurrent Protection ⁽⁴⁾ Maximum Ampacity of Circuit Breaker Allen-Bradley Circuit Breaker Bulletin 140U- ⁽⁵⁾						RMS Sym A	Volts Max
			Line wire/phase	Load wire/phase	kcmil/AWG Copper wire		H3C3	H6C3	J3X3	J6X3	K3X3	K6X3		
1492-PDM3141 Aluminum	3	115	#2-#14 1 	#10-#18 4	#2 - #10	#10 - #14	125	125	---	---	---	---	25,000	480
1492-PD3141 Aluminum	3	175	2/0 - #14 1 	#4-#14 4	2/0 - #1	#4 - #10	---	---	250	250	---	---	22,000	480
					#2 - #4	#4 - #12	---	---	250	250	---	---	22,000	480
					#2 - #6	#4 - #14	125	---	---	---	---	---	30,000	480
					#2 - #6	#4 - #14	---	125	---	---	---	---	50,000	480
1492-PD3163 Aluminum	3	335	400 - #6 1 	#4-#14 6	400 - 3/0	#2 - #8	---	---	---	---	---	400	65,000	480
					400 - 3/0	#2 - #8	---	---	---	---	400	---	25,000	480
					4/0 - #4	#2 - #12	---	---	250	250	---	---	25,000	480

- (1) Short-circuit Current Rating (SCCR) Conditions — Terminal blocks are considered suitable for use on a circuit capable of delivering not more than the stated SCCR at the maximum voltage specified when protected by the max ampere and Class of overcurrent protective device noted in the individual Recognitions. Short-circuit current ratings may be marked on the terminal block or on instructions provided with the terminal block. Short-circuit current ratings have been determined based on the terminal block's use within the minimum enclosure sizes as specified in Condition of Acceptability.
- (2) Short-circuit Current Rating, when noted additional conditions are provided. When larger overcurrent protection device of type or wire of different size is used, the Power Terminal block has a 10,000 amp withstand rating. Note: The rated wire range of terminals may exceed the restrictive wire range used to provide higher SCCR.
- (3) Size Range of Line and Load conductors suitable to maintain noted SCCR
- (4) Maximum Size of Line side overcurrent protection to provide noted SCCR
- (5) Catalog number is incomplete. Example: 140U-H2C3-xnn Refer to Bulletin 140U documentation for complete catalog number.

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