

Control and Lighting Transformer Unit without Disconnecting Means (XFMR)

See page 85 for product description.

Note: Do not mount transformer units below drive units. Heat from transformer units may cause drive to trip.

Note: In order to address the heating effects from loads containing a high degree of harmonic content, it may be necessary to oversize the field conductors (especially neutrals), use k-factor lighting transformers, and oversize the lighting contactor units (increase by 50%). Contact your local Rockwell Automation Sales Office.

Note: Transformers have Class 180°C insulation, 80° C rise.

For 71" high sections, see restrictions on page 22.

Rating kVA ^[1]	Recommended Primary Protection (Amperes)			Space Factor	Catalog Number ^[2] Wiring Type A—Class I			Delivery Program
	240V	480V	600V		NEMA Type 1 and Type 1 w/ gasket ^[3]	NEMA Type 1 with filters and Type 1 w/ gasket and filters ^[4]	NEMA Type 12 ^[1]	
SINGLE PHASE—120 Volt secondary with one (1) secondary fuse								
0.5	15	15	15	1.0	2195-AK_D	—	2195-AJ_D	[5]
0.75					2195-BK_D	—	2195-BJ_D	
1				2.0	2195-CK_D	—	2195-CJ_D	
1.6					2195-ZK_D	—	2195-ZJ_D	
2				1.0 ^[6]	2195-EK_D	—	2195-EJ_D	
3 (1.5)					2195-FK_D	2195-FK_D-16A	2195-FJ_D	
5 (2.5)	—	—	1.5 ^[6]	2195-GK_D	2195-GK_D-16A	2195-GJ_D	[7]	
SINGLE PHASE—120/240 Volt secondary with two (2) secondary fuses Transformer secondary wired and protected for 240V phase to phase/120V phase to center tap neutral.								
5 (2.5)	30	15	—	1.5 ^[6]	2195-GK_A	2195-GK_A-16A	2195-GJ_A	[7]
7.5 (3.7)	40	20	20		2195-HK_A	2195-HK_A-16A	2195-HJ_A	
10 (5)	50	30	20		2195-JK_A	2195-JK_A-16A	2195-JJ_A	
15 (7.5)	70	40	30	2.0 ^[8]	2195-KK_A	2195-KK_A-16A	2195-KJ_A	
25 (12.5)	125	70	60		2195-MK_A	2195-MK_A-16A	2195-MJ_A	
37.5 (18.5)	200	100	70	2.0	2195-XK_A	2195-XK_A-16A	2195-XJ_A	
50 (25)	300	150	100	20" D ^[8]	2195-YK_A	2195-YK_A-16A	2195-YJ_A	
THREE PHASE—120/208 Volt secondary with three (3) secondary fuses Transformer secondary wired and protected for 208 phase to phase/120V phase to WYE neutral.								
10 (5)	—	20	15	2.0 ^[8]	2195-PK_H	2195-PK_H-16A	2195-PJ_H	[7]
15 (7.5)	—	20	15		2195-QK_H	2195-QK_H-16A	2195-QJ_H	
25 (12.5)	—	40	30		2195-SK_H	2195-SK_H-16A	2195-SJ_H	
30 (15)	—	50	40		2195-TK_H	2195-TK_H-16A	2195-TJ_H	
37.5 (18.5)	—	60	50	2.0	2195-VK_H	2195-VK_H-16A	2195-VJ_H	
45 (22.5)	—	70	60	20" D ^[8]	2195-WK_H	2195-WK_H-16A	2195-WJ_H	

[1] In NEMA Type 12 applications (non-ventilated 3kVA and larger transformers), to maximize the transformer's life, it is recommended that the transformer not be loaded to greater than 50% of its nameplate rating. Number in parentheses indicates approximate derated rating. However, in many applications, NEMA Type 1 with gasket design (vented and filtered doors) may be sufficient.

[2] The catalog numbers listed are not complete. Select the primary voltage code from table on page 205 to identify the transformer primary voltage desired (e.g., 2195-FKBD).

[3] For ratings 3kVA and larger, vented door is provided.

[4] For ratings 3kVA and larger, vented and filtered door is provided. 3kVA and larger are available on NEMA Type 12 structures but unit still will be NEMA Type 1/1G with gasket and filters.

[5] 240V and 480V are SC in U.S. and Canada. 600V is PE in U.S. and SC in Canada.

[6] Must be frame mounted in bottom of vertical section.

[7] 240V and 480V are SC-II in U.S. and Canada. 600V is PE-II in U.S. and SC-II in Canada.

[8] Must be frame mounted in bottom of vertical section. No vertical wireway.

Bulletin 2195

Control and Lighting Transformer Unit without Disconnecting Means (XFMR), continued

See page 85 for product description.

Note: Do not mount transformer units below drive units. Heat from transformer units may cause drive to trip.

Note: In order to address the heating effects from loads containing a high degree of harmonic content, it may be necessary to oversize the field conductors (especially neutrals), use k-factor lighting transformers, and oversize the lighting contactor units (increase by 50%). Contact your local Rockwell Automation Sales Office.

Note: Transformers have Class 180°C insulation, 80° C rise.

For 71” high sections, see restrictions on page 22.

Rating kVA ^[1]	Recommended Primary Protection (Amperes)			Space Factor	Catalog Number Wiring Type A—Class I			Delivery Program	
	380V	400V	415V		NEMA Type 1 and Type 1 w/ gasket ^[2]	NEMA Type 1 with filters and Type 1 w/ gasket and filters ^[3]	NEMA Type 12 ^[1]		
SINGLE PHASE—110/115 Volt secondary with one (1) 1-pole circuit breaker ^[4]									
0.5 ^[4]	15	15	15	1.0	2195-AK_S ^[5]	—	2195-AJ_S ^[5]	PE	
0.75 ^[4]					2195-BK_S ^[5]	—	2195-BJ_S ^[5]		
1 ^[4]					2195-CK_S ^[5]	—	2195-CJ_S ^[5]		
1.6 ^[4]					2.0	2195-ZK_S ^[5]	—		2195-ZJ_S ^[5]
2 ^[4]						2195-EK_S ^[5]	—		2195-EJ_S ^[5]
3 ^[4] (1.5)				1.5 ^[6]	2195-FK_S ^[5]	2195-FK_S-16A ^[5]	2195-FJ_S ^[5]		PE-II
SINGLE PHASE—110 Volt secondary with two (2) 1-pole circuit breakers ^[7] Over-current protected for two separate source loads (phase to neutral with a grounded center tap)									
5 (2.5) ^[4]	20	—	—	1.5 ^[6]	2195-GKNP	2195-GKNP-16A	2195-GJNP	PE-II	
7.5 (3.7) ^[4]	20	—	—		2195-HKNP	2195-HKNP-16A	2195-HJNP		
10 (5) ^[4]	30	—	—		2195-JKNP	2195-JKNP-16A	2195-JJNP		
15 (7.5)	50	—	—	2.0 ^[8]	2195-KKNP	2195-KKNP-16A	2195-KJNP		
SINGLE PHASE—115 Volt secondary with two (2) 1-pole circuit breakers ^[7] Over-current protected for two separate source loads (phase to neutral with a grounded center tap)									
5 (2.5)	—	20	—	1.5 ^[6]	2195-GKKNP	2195-GKKNP-16A	2195-GJKNP	PE-II	
7.5 (3.7)	—	20	—		2195-HKKNP	2195-HKKNP-16A	2195-HJKNP		
10 (5)	—	30	—		2195-JKKNP	2195-JKKNP-16A	2195-JJKNP		
SINGLE PHASE—240 Volt secondary with two (2) 1-pole circuit breakers ^[9] Over-current protected for two separate source loads (phase to neutral with a grounded center tap)									
5 (2.5) ^[4]	—	—	20	1.5 ^[6]	2195-GKIT	2195-GKIT-16A	2195-GJIT	PE-II	
7.5 (3.7) ^[4]	—	—	20		2195-HKIT	2195-HKIT-16A	2195-HJIT		
10 (5) ^[4]	—	—	30		2195-JKIT	2195-JKIT-16A	2195-JJIT		
15 (7.5)	—	—	50	2.0 ^[8]	2195-KKIP	2195-KKIP-16A	2195-KJIP		

[1] In NEMA Type 12 applications (non-ventilated 3kVA and larger transformers), to maximize the transformer’s life, it is recommended that the transformer not be loaded to greater than 50% of its nameplate rating. Number in parentheses indicates approximate derated rating. However, in many applications, NEMA Type 1 with gasket design (vented and filtered doors) may be sufficient.

[2] For ratings 3kVA and larger, vented door is provided.

[3] For ratings 3kVA and larger, vented and filtered door is provided. 3kVA and larger are available on NEMA Type 12 structures but unit still will be NEMA Type 1/1G with gasket and filters.

[4] Incorporates primary taps for future conversion to new global IEC voltage standards (e.g., 400V/115V/230V). Allows conversion without the need to replace transformers.

[5] The catalog numbers listed are not complete. Select the primary voltage code from table on page 205 to identify the transformer primary voltage desired (e.g., 2195-FKNS).

[6] Must be frame mounted in bottom of vertical section.

[7] Use for two separate feeds with center tap grounded.

[8] Must be frame mounted in bottom of vertical section. No vertical wireway.

[9] The 15kVA transformer has a single phase 220 Volt secondary with two (2) 1-pole circuit breakers.

Configuration Tables

Control Voltage Type for Bulletins 2102L, 2103L, 2106, 2107, 2112, 2113, 2122, 2123, 2126, 2127, 2172, and 2173 *

Control Voltage Code							Control Type
208V	240V	380V	400V	415V	480V	600V	
H	A	—	—	—	B	C	120V, 60Hz, Transformer Control ^[1]
HD	AD	—	—	—	BD	CD	120V, 60Hz, Separate Control ^[2]
—	—	N	—	I	—	—	110V, 50Hz, Transformer Control ^{[1],[3]}
—	—	NS	—	IS	—	—	110V, 50Hz, Separate Control ^[2]
—	—	—	KN	—	—	—	115V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	KNS	—	—	—	115V, 50Hz, Separate Control ^[2]
—	—	NP	—	—	—	—	220V, 50Hz, Transformer Control ^{[1],[3]}
—	—	NP	—	—	—	—	220V, 50Hz, Separate Control ^[2]
—	—	—	KNP	—	—	—	230V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	KNP	—	—	—	230V, 50Hz, Separate Control ^[2]
—	—	—	—	IT	—	—	240V, 50Hz, Transformer Control ^{[1],[3]}
—	—	—	—	IT	—	—	240V, 50Hz, Separate Control ^[2]
—	—	NLP	—	—	—	—	220V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
—	—	—	KNLP	—	—	—	230V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
—	—	—	—	ILT	—	—	240V, 50Hz, Line to Neutral Control, (Separate Control) ^{[4],[5]}
H	A	—	—	—	B	C	Common Control ^[6]

[1] Select a control circuit transformer. See Options section.

[2] Control circuit fusing (option 21) and/or disconnect interlock (option 98) may be required to comply with NEC. See Options section.

[3] Incorporates primary taps for future conversion to new global IEC voltage standards (e.g., 400V/115V/230V). Allows conversion without the need to replace transformers or coils.

[4] Requires horizontal neutral bus and vertical neutral bus in 9" vertical wireway. Refer to Section Modifications to select.

[5] Select control circuit fusing (see option 21 in Options section).

[6] Select control circuit fusing (see option 22 in Options section). Required to comply with NEC.

Primary Voltage Code for Bulletins 2195, 2196, and 2197

240V	380V	400V	415V	480V	600V
A	N	KN	I	B	C

Control Voltage Type for Bulletins 2154 and 2155

Control Voltage Code								Control Type
220V ^[1]	230V ^[1]	240V	380V ^[1]	400V ^[1]	415V ^[1]	480V	600V	
P	—	—	N	—	I	—	—	110V, 50Hz Transformer Control
—	P	—	—	KN	—	—	—	115V, 50Hz Transformer Control
—	—	A	—	—	—	B	C	120V, 60Hz Transformer Control

[1] Units at these voltages are not UL listed or CSA certified.

* Blue type indicates PE delivery program.