Westinghouse Electric Corporation
Switchgear Division
East Pittsburgh, Pa. 15112

Technical Data
34-222

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January 16, 1980
Supersedes PL 34-222
dated May 5, 1977

Mailed to: E, D, C/1977/PL

Circuit Breaker Tripping, Control

Switches Type WL, Type WLM Auxiliary

Type WL Switches • For ordering information see page 2.

Table 1: Style Numbers With Coils ②

Assembly Style Number	No. of Stages	Switch, Less Coil	Coil Rating – Volts Dc	Approx. Shipping Wt., Lbs.	Assembly Style Number	No. of Stages	Switch, Less Coil	Coil Rating – Volts Dc	Approx. Shipping Wt., Lbs.
300P685G01④	5	422D949G04	250	8	300P757G01	8	422D949G06	125	10
300P686G01④	6	422D949G05	250	9	300P758G01③	10	422D949G07	125	11
300P687G01④	8	422D949G06	250	10	300P759G01	6	422D949G12	125	9
300P688G01④	10	422D949G07	250	11	300P760G01③	10	422D949G14	125	11
300P689G01④	6	422D949G12	250	9	300P761G01	4	422D949G23	125	7.5
300P690G01④	10	422D949G14	250	11	300P762G01③	6	422D949G25	125	9
300P691G01	6	422D949G19	⑤	9	300P763G01③	10	422D949G27	125	11
300P692G01	8	422D949G26	⑤	10	300P764G01③	6	422D949G30	125	9
300P693G01	10	422D949G27	⑤	11	300P765G01③	10	422D949G32	125	11
300P694G01	6	422D949G45	⑤	9	300P766G01③	8	422D949G35	125	10
300P695G01	8	422D949G52	⑤	10	300P767G01③	10	422D949G36	125	11
300P696G01	10	422D949G53	⑤	11	300P768G01③	10	422D949G39	125	11
300P697G01	8	422D949G06	⑤	10	300P769G01③	10	422D949G53	125	11
300P699G01	8	422D949G06	48	10	300P770G01③	10	422D949G65	125	11
300P755G01③	5	422D949G04	125	8	300P771G01④	5	422D949G18	250	8
300P756G01③	6	422D949G05	125	9					

② This table constitutes the most frequently used combinations and is given for convenience in ordering a single assembly style. ③ Stock item. ④ Connect coil contact and first stage contact in series for coil cutoff contact. ⑤ Operates on circuit breaker capacitor trip. ⑥ Coil good for 110 volt, 60 cycles or 24 volt dc.

Table 2: With Oval Handle for ñ Inch Panel Mounting

No. of Stages	Style Numbers Without Coils				Approx. Ship. Wt., Lbs.	Rotor Contacts A = Contact Open in Reset, Closed in Trip Position. B = Contact Closed in Reset, Open in Trip Position.										
	Modern Handle		Heavy-Duty Handle													
	Non-Trip By Handle	Trip By Handle	Non-Trip By Handle	Trip By Handle		Coil	1-2 ①	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20
2	422D949G01	422D950G01	422D949G08	422D950G08	6½	B	A	A								
3	422D949G02	422D950G02	422D949G09	422D950G09	7	B	A	A	A							
4	422D949G03	422D950G03	422D949G10	422D950G10	7½	B	A	A	A	A						
5	422D949G04	422D950G04	422D949G11	422D950G11	8	B	A	A	A	A	A					
6	422D949G05	422D950G05	422D949G12	422D950G12	9	B	A	A	A	A	A	A				
8	422D949G06	422D950G06	422D949G13	422D950G13	10	B	A	A	A	A	A	A	A	A		
10	422D949G07	422D950G07	422D949G14	422D950G14	11	B	A	A	A	A	A	A	A	A	A	A
2	422D949G15	422D950G15	422D949G41	422D950G41	6½	B	B	A								
3	422D949G16	422D950G16	422D949G42	422D950G42	7	B	B	A	A							
4	422D949G17	422D950G17	422D949G43	422D950G43	7½	B	B	A	A	A						
5	422D949G18	422D950G18	422D949G44	422D950G44	8	B	B	A	A	A	A					
6	422D949G19	422D950G19	422D949G45	422D950G45	9	B	B	A	A	A	A	A				
8	422D949G20	422D950G20	422D949G46	422D950G46	10	B	B	A	A	A	A	A	A	A		
10	422D949G21	422D950G21	422D949G47	422D950G47	11	B	B	A	A	A	A	A	A	A	A	A
3	422D949G22	422D950G22	422D949G48	422D950G48	7	B	B	B	A							
4	422D949G23	422D950G23	422D949G49	422D950G49	7½	B	B	B	A	A						
5	422D949G24	422D950G24	422D949G50	422D950G50	8	B	B	B	A	A	A					
6	422D949G25	422D950G25	422D949G51	422D950G51	9	B	B	B	A	A	A	A				
8	422D949G26	422D950G26	422D949G52	422D950G52	10	B	B	B	A	A	A	A	A	A		
10	422D949G27	422D950G27	422D949G53	422D950G53	11	B	B	B	A	A	A	A	A	A	A	A
4	422D949G28	422D950G28	422D949G54	422D950G54	7½	B	B	B	B	A						
5	422D949G29	422D950G29	422D949G55	422D950G55	8	B	B	B	B	A	A					
6	422D949G30	422D950G30	422D949G56	422D950G56	9	B	B	B	B	A	A	A				
8	422D949G31	422D950G31	422D949G57	422D950G57	10	B	B	B	B	A	A	A	A	A		
10	422D949G32	422D950G32	422D949G58	422D950G58	11	B	B	B	B	A	A	A	A	A	A	A
5	422D949G33	422D950G33	422D949G59	422D950G59	8	B	B	B	B	B	A					
6	422D949G34	422D950G34	422D949G60	422D950G60	9	B	B	B	B	B	A	A				
8	422D949G35	422D950G35	422D949G61	422D950G61	10	B	B	B	B	B	A	A	A	A		
10	422D949G36	422D950G36	422D949G62	422D950G62	11	B	B	B	B	B	A	A	A	A	A	A
6	422D949G37	422D950G37	422D949G63	422D950G63	9	B	B	B	B	B	B	A				
8	422D949G38	422D950G38	422D949G64	422D950G64	10	B	B	B	B	B	B	A	A	A		
10	422D949G39	422D950G39	422D949G65	422D950G65	11	B	B	B	B	B	B	A	A	A	A	A

① On 250 volts dc control circuits this contact must be connected in series with coil contact.

Further Information
Price List 34-009

Type WL Switches, Continued

Table 3: Two Units Geared to a Common Handle

Stage②	Stage②
11	16
12	17
13	18
14	19
15	20

Additions and Modifications②

Capacitor
Diode-Resistor Assembly
Target
Resistor Assembly (One Resistor)
Special Nameplate Marking
Tumble Pin Key Lock
Bevel Geared Assy.
Coil Omission

Table 4: Characteristics – Coil Selection for Relay Switch

Time From Energization of Coil to Positive Contact Closing – Seconds

The coils marked (①) are considered standard for the operating voltage as indicated and will be included with the switch if the style of the coil is not specified when the switch is ordered. In any case, the operating voltage must be given. These coils should not be used for 5 ampere series trip operation from secondary of current transformers, as the burden is too great.

Direct Current

Coil Style Number	Ohms Resistance	Minimum Trip Dc Volts	Control Voltage – Dc			
			24	48	125	250
			Time in Seconds			
767 374	.73	8.7	①.016	....	....	....
452 325	2.68	17.1	....	.016	....	....
760 254	4.05	21.4	....	①.017	....	....
476 372	6.2	27.0	....	.019	.013	....
1043 450	8.6	31.0	....	....	.014	....
477 879	12.2	33.0	....	....	.014	....
807 530	18.5	44.0	....	....	.016	....
807 531	28.0	54.0	....	....	①.017	.014
476 373	45.5	70.0	....	....	.019	.015
371 783	59.0	84.0	....	....	....	①.016
371 733	104.0	111.0	....	....	....	.017

Alternating Current – 60 Cycles*

Coil Style Number	Ohms Impedance (Not Tripped)	Minimum Trip Ac Volts	Control Voltage – Ac	
			110	220
			Time in Seconds	
767 374	6.2	50	①.016	....
452 325	21.0	95	.019	.016
760 254	30.0	115	....	.016
476 372	43.0	135	....	①.017
1043 450	52.0	155	....	.018
477 879	97.0	200	....	....
807 530	140.0	243	....	....
807 531	208.0	297	....	....

* Time may vary slightly for Ac tripping depending on point of Ac cycle at which coil is energized.

Type WLM Switches

Single Units Stages②	Geared Units Stages②
1	11
2	12
3	13
4	14
5	15
6	16
7	17
8	18
9	19
10	20

Auxiliary Switches

No. of Stages	Indoor With Cover Style Number②	Indoor Without Cover Style Number②	Outdoor Weatherproof Style Number②
2	676 957	591 815④	599 938
2	... ...	591 816	... ...
4	676 960③	591 818④	599 939
4	... ...	591 819	... ...
6	676 963	591 821④	599 940
6	... ...	591 822	... ...
10	676 966	591 824④	599 941
10	... ...	591 825	... ...

② Refer to Westinghouse.
③ Stock item.
④ Without operating lever, mounting bracket, or cover.

Ordering Information

Prices include switch and coil in all cases. Select switch style number from table 1 and coil style number from table 4 unless it is convenient to order complete assembly style from table 2, which lists the most frequently used combinations.

Operating voltage should always be specified. Heavy-duty handle switches can be mounted on panels up to 2 inches thick by changing the mounting screw length. Modern handle switches for other than ⅛ inch panels are available on special order.

Special WL switches can be supplied on special order to handle more than 10 circuits up to a maximum of 20.

For information on direct current applications refer to Descriptive Bulletin 34-252.

For special switches, refer to Westinghouse.

Printed in U.S.A.

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