

Single and Three Phase NEMA Manual Starting Switches

Overview/Product Selection

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Open Type without Enclosure

Bulletin 609

- Contact position indicator
 - Locking features
 - Wide range of enclosures:
 - Open-type without enclosure, Type 1, and Type 12
- Bulletin 609 manual starting switches are designed for use on motor starting installations where remote push button control is not required and where undervoltage protection is not needed. The motor is started at full line voltage, and thermal type overload protection is provided. Bulletin 609RS manual starting switches are designed for manually reversing AC polyphase motors; the Bulletin 609TS manual switches are designed for operating 2-speed, separate winding wye connected motors. These switches incorporate two of the standard Bulletin 609 manual starting switches mounted on a common base plate. A mechanical interlock is provided to prevent both switches from being closed at the same time.

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Standards Compliance

- NEMA/EEMAC ICS2 (Industrial Controls and Systems)
- UL 508
- ABS 4/5.115
- CFR 111.70
- EN60947-4-1
- USCG 46

Certifications

- UL Listed (File No. E14841; Guide No. NLRV)
- CSA Certified (File LR 1234)
- American Bureau of Shipping (ABS)
- CE Marked
- Hazardous Location: UL Listed (File No. E10314) CSA Certified (File LR 11924)

Single- and Three-Phase NEMA Manual Starting Switches

Type of Operator	Phase	Size	Maximum Horsepower Rating							Open Type without Enclosure	Type 1 General Purpose Enclosure Surface Mounting*	Type 12 Dusttight Industrial Use Enclosure	Type 4/4X Watertight, Corrosion-Resistant Enclosure Fiberglass-Reinforced Polyester†	Hazardous Locations					
			Motor Voltage											Cat. No.	Cat. No.	Cat. No.	Cat. No.	Enclosure Class I, Groups C & D Class II, Groups E, F & G - Divisions 1 & 2	
			AC, 60 Hz			AC, 50 Hz	DC		Type 7 & 9									Type 3R, 7 & 9§	
			115V	200V	230V	460... 575V	380... 415V	115... 125V											230... 250V
Push Button	1 Ø	0	1	—	2	—	—	—	—	609-AOX	609-AAX	609-AJX	609-ACX	609-AEX	609-AHX				
		1	2	—	3	—	—	—	—	609-BOX	609-BAX	609-BJX	609-BCX	609-BEX	609-BHX				
		1 P	3	—	5	—	—	—	—	609-XOX	609-XAX	609-XJX	609-XCX	609-XEX	609-XHX				
	3 Ø	0	—	3	3	5	5	—	—	609-AOW	609-AAW	609-AJW	609-ACW	609-AEW	609-AHW				
1		—	7-1/2	7-1/2	10	10	—	—	609-BOW	609-BAW	609-BJW	609-BCW	609-BEW	609-BHW					
Toggle Lever	1 Ø	0	1	—	2	—	—	—	—	609T-AOX	609T-AAX	—	—	—	—				
		1	2	—	3	—	—	—	—	609T-BOX	609T-BAX	—	—	—	—				
		1 P	3	—	5	—	—	—	—	609T-XOX	609T-XAX	—	—	—	—				
	3 Ø	0	—	3	3	5	5	—	—	609T-AOW	609T-AAW	—	—	—	—				
1		—	7-1/2	7-1/2	10	10	—	—	609T-BOW	609T-BAW	—	—	—	—					
Push Button	DC*	0	—	—	—	—	—	1	1-1/2	609D-AOZ	609D-AAZ	—	609D-ACZ	609D-AEZ	609D-AHZ				
		1	—	—	—	—	—	1-1/2	2	609D-BOZ	609D-BAZ	—	609D-BCZ	609D-BEZ	609D-BHZ				
Toggle Lever	DC*	0	—	—	—	—	—	1	1-1/2	609DT-AOZ	609DT-AAZ	—	—	—	—				
		1	—	—	—	—	—	1-1/2	2	609DT-BOZ	609DT-BAZ	—	—	—	—				

Bulletin 609RS — Manual Reversing Switches

Push Button	3 Ø	0	—	3	3	5	5	—	—	609-AOW21	609-AAW21	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609-BOW21	609-BAW21	—	—	—	—
Toggle Lever	3 Ø	0	—	3	3	5	5	—	—	609T-AOW21	609T-AAW21	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609T-BOW21	609T-BAW21	—	—	—	—

Bulletin 609TS — Manual 2-Speed Switches

Push Button	3 Ø	0	—	3	3	5	5	—	—	609-AOW22	609-AAW22	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609-BOW22	609-BAW22	—	—	—	—
Toggle Lever	3 Ø	0	—	3	3	5	5	—	—	609T-AOW22	609T-AAW22	—	—	—	—
		1	—	7-1/2	7-1/2	10	10	—	—	609T-BOW22	609T-BAW22	—	—	—	—

* Type 1 general purpose flush mounting enclosures with pull box are also available. Order as follows. Change the second letter of the listed cat. no. from **A** to **L**. Example: **Cat. No. 609-ALX**. For a stainless steel flush plate, change the second letter of the listed cat. no. from **A** to **Q**. Example: **Cat. No. 609-AQX**.

* DC manual starters are not UL listed.

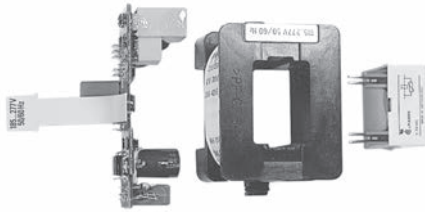
† Fiberglass-reinforced polyester hubs are included with each starter.

§ These enclosures include a cover gasket and drain. It is recommended that a breather also be installed.

- Breather **Cat. No. 1401-N1** (Can be installed at the top of an enclosure.)
- Drain **Cat. No. 1401-N2** (Can be installed at the bottom of an enclosure.)
- Breather-Drain Combination **Cat. No. 1401-N3** (Can be installed at the top of an enclosure as a breather or bottom as a drain.)



Bulletin 100-D Replacement coils



Conventional AC							Conventional DC				
AC Standard Control Voltages			AC Coil Code	100-D115...D180	100-D210...D420	100-D630...D860	DC Standard Control Voltages	DC Coil Code	100-D95...D180	100-D210...D420	100-D630...D860
50 Hz	60 Hz	50/60 Hz		Cat. No.	Cat. No.	Cat. No.			Cat. No.	Cat. No.	Cat. No.
24V	—	—	K	TG407	—	—	12V	ZQ	TG708	—	—
—	24V	—	J	TG013	—	—	24V	ZJ	TG714	—	—
32V	36V	—	V	TG481	—	—	36V	ZW	TG719	—	—
36V	42V	—	W	TG410	—	—	48V	ZY	TG724	—	—
48V	—	—	Y	TG414	—	—	60V	ZZ	TG774	—	—
42V	48V	—	X	TG482	—	—	110V	ZD	TG733	—	—
—	—	100V*	KP	TG861	—	—	125V	ZS	TG737	—	—
110V	120V	—	D	TG473	—	—	130V	ZF	TG738	—	—
—	—	110V*	KN	TG856	—	—	220V	ZA	TG761	—	—
—	208V	—	H	TG049	—	—	240V	ZL	TG750	—	—
—	—	200V*	KG	TG862	—	—	250V	ZT	TG751	—	—
—	—	220V*	KL	TG857	—	—					
220...230V	240V	—	A	TG441	—	—					
240V	277V	—	T	TG480	—	—					
—	—	277V*	KT	TG060	—	—					
—	—	230V*	KF	TG851	—	—					
—	—	240V*	KA	TG858	—	—					
380...400V	440V	—	N	TG071	—	—					
415V	480V	—	B	TG475	—	—					
440V	—	—	G	TG478	—	—					
500V	—	—	M	TG479	—	—					
550V	600V	—	C	TG476	—	—					

Electronic AC							Electronic DC				
AC Standard Control Voltages			AC Coil Code	100-D115...D300	100-D420	100-D630...D860	DC Standard Control Voltage	DC Coil Code	100-D115...D300	100-D420	100-D630...D860
50 Hz	60 Hz	50/60 Hz		Cat. No.	Cat. No.	Cat. No.			Cat. No.	Cat. No.	Cat. No.
—	—	24V	EJ*	TGE855	—	—	24V	EZJ	TGE708	—	—
—	—	42...64V	EY	TGE864	—	—	48...72V	EZY	TGE779	—	—
—	—	100V	EP	TGE861	THE861	TJE861	110...130V	EZD	TGE780	THE780	—
—	—	110...130V	ED	TGE865	THE865	TJE865		ED	—	—	TJE865
—	—	200V	EG	TGE862	THE862	—	200...255V	EZA	TGE781	THE781	—
—	—	208...277V	EA	TGE866	THE866	—		EA	—	—	TJE879
—	—	200...220V	EG	—	—	TJE878					
—	—	230...250V	EA	—	—	TJE879					
—	—	277V	ET	—	—	TJE880					
—	—	380...500V	EN	TGE867	THE867	—					
—	—	380...415V	EN	—	—	TJE867					
—	—	440...480V	EB	—	—	TJE868					
—	—	500V	EM	—	—	TJE869					

* Applies to 100-D115...-D110 contactors only. Not available with 100-D140...-D180 contactors.

* Not available on 100/104-D300.