

# General information Factory modifications

Starters

3

## Control cover accessories – A9-A750

Description	Control suffix ①	List price adder
		NEMA 1 3R 4, 4X & 12
Start-stop pushbutton	A	\$ 72
Fwd-rev-stop pushbutton	B	360
2 position selector switch (Std. ON-OFF)	C	72
3 position selector switch (Std. HAND-OFF-AUTO)	D	72
Pilot light, Red, RUN (Std.)	E	135
Pilot light, Green, RUN	R	135
Pilot light suffix + V= Neon bulb	V	–
Pilot light suffix + X= LED bulb	X	–
Start-stop pushbutton & pilot light	F	207
Fwd-rev-stop pushbutton & pilot light	G	496
2 position selector switch & pilot light	H	207
3 position selector switch & pilot light	J	207
Fast-slow-stop pushbuttons	K	360
Fast-slow-stop pushbuttons & pilot light	L	495
Fast-slow-off-auto selector switch	M	150
Emergency stop	P	100
F suffix + 1NO & 1NC auxiliary contact	T	237
J suffix + 1NO & 1NC auxiliary contact	U	237
Pushbutton (standard START)	Y	36

## Special modifications

Contact configuration	Suffix code ①	List price adder
<b>Contactor</b>		
Coil surge suppressor	S	\$ 75
<b>Auxiliary relays</b>		
Type N control relay (4 pole)	CR	225
Electronic timer		
1.5 – 30, On Delay	TN30	300
5 – 100, On Delay	TN100	300
1.5 – 30, Off Delay	TF30	300
5 – 100, Off Delay	TF100	300
Phase failure phase reversal with over and undervoltage relays	PFPR	525
Ground fault protection	GFP	2250
<b>For multi-speed controllers</b>		
Compelling relay	CPR	600
Accelerating relay	ACR	600
Decelerating relay	DCR	600
<b>Meters &amp; metering</b>		
Current transformer	CT	375
Ammeter (including C.T.)	AM	705
Ammeter & ammeter switch	AMS	1800
Voltmeter	VM	1200
Voltmeter & voltmeter switch	VMS	1800
Elapsed time meter	ETM	375
Operation counter	OC	560
Wattmeter	WM	3650
<b>Miscellaneous</b>		
Lightning arrester	LA	320
Space heater, 100W with thermostat	SH	600

## Control circuit transformer (standard VA) – A9 - A750 ②

Standard size with fused secondary			Coil suffix	Starter size	CCT VA	List price
Primary	Secondary	Hz				
				A9 – A40	45 ③	\$ 300
				A9 – A40	50	360
200/208V	110V	50/60	0	A50 – A75	75	435
220/240V	110/120V	50/60	7	A95 – A110	100	560
440/480V	110/120V	50/60	8	A145 – A185	150	720
550/600V	110/120V	50/60	9	A210 – A300	250	795
				A400 – A460	150	720 ④
				A580 – A750	250	795 ④

Control circuit transformers do include two primary fuses and one secondary fuse.

- ① Add this suffix to the last digit of the catalog number.
- ② Consult factory if additional VA is required.
- ③ Does not include primary fusing.
- ④ A400 - A750 utilizes the AF wide range coil with a lower coil consumption than A210 - A300.

## Additional auxiliary contact blocks – A9 – A750

Contact configuration	Suffix code ①	A9 – A110 list price adder	A145 – A750 list price adder
1 N.O.	10	\$ 20	–
1 N.C.	01	20	–
2 N.O.	20	30	–
1 N.O. & 1 N.C.	11	30	\$ 30
2 N.C.	02	30	–
4 N.O.	40	60	–
3 N.O. & 1 N.C.	31	60	–
2 N.O. & 2 N.C.	22	60	60
1 N.O. & 3 N.C.	13	60	–
4 N.C.	04	60	–
3 N.O. & 3 N.C.	33	90	90

## Reduced voltage & multi-speed starters – price adders

Starter size	Non-fusible switch price adder	Fusible switch price adder	MCCB or MCP price adder
A9	\$ 990	\$ 1008	\$ 1287
A12	990	1008	1287
A16	990	1008	1287
A26	990	1008	1287
A30	990	1224	1350
A40	990	1224	1350
A50	1152	1224	1350
A63	1230	1350	1785
A75	1494	1602	1809
A95 – A110	2310	2565	2982
A145	3042	3366	4158
A185	3300	3735	4533
A210	3450	3825	6000
A260	3744	4068	6849
A300	4200	6000	8750
A400	6600	9450	9030
A460	8200	11,100	9475
A580	8400	11,800	10,200
A750	9000	12,450	12,900

## Hazardous location enclosure accessories, NEMA 7 & 9

Item	Catalog ① Suffix No.	List price
3R Breather/drain	A	\$ 80
Start PB green	B	180
Stop PB red	C	180
St/St dual PB	D	360
Em. Stop mush momentary	E	220
Em. Stop mush maintained	F	460
Black PB N.O. auxiliary	G	180
Black PB N.C. auxiliary	H	180
Pilot light	J	180
Illuminated PB	K	460
Push-to-test pilot light	L	450
Potentiometer	M	460
2-Pos Selector Maintained	N	260
2-Pos Selector spring L to R	P	280
2-Pos Selector spring R to L	Q	280
3-Pos Selector sw. main.	R	260
3-Pos Selector spring L to R	S	280
3-Pos Selector spring R to L	T	280
3-Pos Selector spring to C	U	280
2-Pos Selector key operated	V	450
3-Pos Selector key operated	W	450