

Auto-transformer, non-combination type

A16 - A750

Three phase

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UL motor switching current	Maximum ratings – UL Listed				Open type		UL Type 1 (Indoor metal)	
	Maximum motor horsepower ratings ^①				Catalog number	List price	Catalog number	List price
	200/208V	230/240V	460/480V	575/600V				
UL rated								
17	5	5	10	15	A16SA-84★	\$ 3987	A16SA1-84★	\$ 5103
28	7.5	10	20	25	A26SA-84★	4341	A26SA1-84★	5457
42	10	15	30	40	A40SA-84★	4698	A40SA1-84★	5814
54	15	20	40	50	A50SA-84★	4887	A50SA1-84★	6003
65	20	25	50	50	A63SA-84★	5130	A63SA1-84★	6246
80	25	30	60	75	A75SA-84★	5787	A75SA1-84★	6471
95	30	30	60	75	A95SA-84★	9300	A95SA1-84★	9800
110	30	40	75	100	A110SA-84★	9972	A110SA1-84★	10,694
130	40	50	100	125	A145SA-84★	10,863	A145SA1-84★	11,853
156	50	60	125	150	A185SA-84★	14,334	A185SA1-84★	16,880
192	60	75	150	200	A210SA-84★	17,196	A210SA1-84★	19,781
248	75	100	200	250	A260SA-84★	19,670	A260SA1-84★	21,668
302	100	—	250	300	A300SA-84★	24,042	A300SA1-84★	26,034
414	125	150	350	400	A400SA-70★	30,996	A400SA1-70★	32,981
480	150	200	400	500	A460SA-70★	35,978	A460SA1-70★	39,182
590	200	250	500	600	A580SA-70★	52,562	A580SA1-70★	55,898
810	250	300	600	700	A750SA-70★	59,250	A750SA1-70★	62,618
NEMA rated								
NEMA size	Continuous current	200V	230V	460/575V				
0	18	3	3	5	A16N0SA-84★	\$ 3987	A16NSA1-84★	\$ 5103
1	27	7.5	7.5	10	A26N1SA-84★	4341	A26NSA1-84★	5457
2	45	10	15	25	A50N2SA-84★	4887	A50NSA1-84★	6003
3	90	25	30	50	A75N3SA-84★	5787	A75NSA1-84★	6471
4	135	40	50	100	A145N4SA-84★	10,863	A145NSA1-84★	11,853
5	270	75	100	200	A260N5SA-84★	19,670	A260NSA1-84★	21,668
6	540	150	200	400	A460N6SA-70★	35,978	A460NSA1-70★	39,182
7	810	—	300	600	A750N7SA-70★	59,250	A750NSA1-70★	62,618

★ Overload relay suffix code. Select from the overload relay selection chart on page 3.6.

Description

An autotransformer starter reduces inrush current by using a transformer in the line just ahead of the motor to step down the voltage applied to the motor terminals. By reducing the voltage, the current drawn from the line is reduced during start-up.

When the setting time on the timer has expired, the autotransformer is bypassed. The 1S contactor drops out, the run contactor closes, and the 2S contactor opens, proving full voltage to the motor.

The ABB autotransformer starter is a closed transition type, meaning that the motor remains connected to the line during the entire acceleration period.

The transformer has three taps which provide 50%, 65% and 80% of full line voltage. At delivery, the transformer is connected to the 65% tap; the inrush current will be reduced to 42% of normal; and the starting torque will be reduced to 42%.

The autotransformer starter can be used for any squirrel-cage motor.

Factory modifications

See page 3.3

Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the two digits after the last dash in the catalog number.

Ex.: A 240V coil is required for an A75 starter: A75SA-84★

Coil voltage selection – A9 - A300 ①

Hz	Cntr type	Volts															
		12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	A		81	83	84	84		34	36	80	42		86	86	51	53	55
50	A		81	83	84				80				85	86			55

For other voltages, see page 1.26.

Coil voltage selection – A400 - A750 ①

Hz	Cntr type	Volts			
		24 - 60	48 - 130	100 - 250	250 - 500
60	AF	68	69	70	71 ②
50	AF	68	69	70	71 ②
DC	AF	68	69	70	71 ②

Control transformer voltage selection chart

Hz	Type	Volts			
		208/120	230 – 240/120	460 – 480/120	575 – 600/120
50/60	A/AF	0	7	8	9

For other voltages, consult factory.

① For AF50 – AF 300 starters, consult factory.

② AF400 - AF750 only.

Auto-transformer – non-combination type

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Three phase

Reduced voltage
starters

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UL Type 3R (Outdoor metal)		UL Type 12 (Metal dusttight)		UL Type 4 (Watertight)		UL Type 4X (Stainless steel)	
Catalog number	List price	Catalog number	List price	Catalog number	List price	Catalog number	List price
UL rated							
A16SA3-84★	\$ 5823	A16SA2-84★	\$ 5823	A16SA4-84★	\$ 6993	A16SAX-84★	\$ 8550
A26SA3-84★	6177	A26SA2-84★	6177	A26SA4-84★	7347	A26SAX-84★	8888
A40SA3-84★	6549	A40SA2-84★	6549	A40SA4-84★	7719	A40SAX-84★	9375
A50SA3-84★	6723	A50SA2-84★	6723	A50SA4-84★	7893	A50SAX-84★	9600
A63SA3-84★	7694	A63SA2-84★	7694	A63SA4-84★	9014	A63SAX-84★	10,725
A75SA3-84★	8181	A75SA2-84★	8181	A75SA4-84★	9261	A75SAX-84★	10,988
A95SA3-84★	11,200	A95SA2-84★	11,200	A95SA4-84★	12,400	A95SAX-84★	13,600
A110SA3-84★	12,323	A110SA2-84★	12,323	A110SA4-84★	13,388	A110SAX-84★	14,700
A145SA3-84★	14,013	A145SA2-84★	14,013	A145SA4-84★	16,983	A145SAX-84★	18,300
A185SA3-84★	18,972	A185SA2-84★	18,972	A185SA4-84★	21,951	A185SAX-84★	24,450
A210SA3-84★	21,842	A210SA2-84★	21,842	A210SA4-84★	24,812	A210SAX-84★	27,600
A260SA3-84★	24,098	A260SA2-84★	24,098	A260SA4-84★	26,798	A260SAX-84★	29,400
A300SA3-84★	28,391	A300SA2-84★	28,391	A300SA4-84★	31,184	A300SAX-84★	33,000
A400SA3-70★	35,247	A400SA2-70★	35,247	A400SA4-70★	38,807	A400SAX-70★	41,175
A460SA3-70★	42,557	A460SA2-70★	42,557	A460SA4-70★	45,932	A460SAX-70★	50,700
A580SA3-70★	59,997	A580SA2-70★	59,997	A580SA4-70★	62,324	A580SAX-70★	68,700
A750SA3-70★	65,993	A750SA2-70★	65,993	A750SA4-70★	69,368	A750SAX-70★	75,300
NEMA rated							
A16NSA3-84★	\$ 5823	A16NSA2-84★	\$ 5823	A16NSA4-84★	\$ 6993	A16NSAX-84★	\$ 8550
A26NSA3-84★	6117	A26NSA2-84★	6177	A26NSA4-84★	7347	A26NSAX-84★	8888
A50NSA3-84★	6723	A50NSA2-84★	6723	A50NSA4-84★	7893	A50NSAX-84★	9600
A75NSA3-84★	8181	A75NSA2-84★	8181	A75NSA4-84★	9261	A75NSAX-84★	10,988
A145NSA3-84★	14,013	A145NSA2-84★	14,013	A145NSA4-84★	16,983	A145NSAX-84★	18,300
A260NSA3-84★	24,098	A260NSA2-84★	24,098	A260NSA4-84★	26,798	A260NSAX-84★	29,400
A460NSA3-70★	42,557	A460NSA2-70★	42,557	A460NSA4-70★	45,932	A460NSAX-70★	50,700
A750NSA3-70★	65,993	A750NSA2-70★	65,993	A750NSA4-70★	69,368	A750NSAX-70★	75,300

★ Overload relay suffix code. Select from the overload relay selection chart on page 3.6.

Control transformer option

Contactor size	VA rating	List price adder
A9 – A40	45 ①	\$ 300
A9 – A40	50	360
A50 – A75	75	435
A95 – A110	100	560
A145 – A185	150	720
A210 – A300	250	795
A400 – A460	150	720 ②
A580 – A750	250	795 ②

① No primary fusing provided.

② A400 - A750 utilizes the AF wide range coil with a lower coil consumption than A210 - A300.