

Addendum to User's Manuals (Effective 12/1/2014)

ACS150 User's Manual	3AFE68576032	REVC
ACS310 User's Manual	3AUA0000044201	REVC
ACS320 User's Manual	3AUA0000062599	REVD
ACS355 User's Manual	3AUA0000066143	REVB

Technical Data / Power Cable Sizes and Fuses / Alternate Short Circuit Protection

ABB UL file E211945 Volume 1, Section 4 lists the ABB Type E manual motor protectors MS132 & S1-M3-25, MS451-xxE, MS495-xxE as an alternate to UL classified fuses as a means of branch circuit protection. This is in accordance with the National Electrical Code (NEC). When the correct ABB Type E manual motor protector is selected from the table and used for branch circuit protection the drive is suitable for use in a circuit capable of delivering not more than 65 kA RMS symmetrical amperes at the drive maximum rated voltage. See the following combined micro drive table for the appropriate ratings.

Drives with and without NEMA 1 enclosure kits are included in the UL file. The MMP selections in the table are also valid for drives having a NEMA 1 enclosure kit installed.

Type Code	Frame	Input Amps	MMP Type E ^{1, 2}	Min. Encl. Vol. (cu in) ⁵
1 Phase 200 - 240V				
ACS150/310/320/355-01x-02A4-2	R0	6.1	MS132-6.3 & S1-M3-25 ³	1152
ACS355-01x-04A7-2	R1	11.0	MS451-16E	1152
ACS150/310/320-01x-04A7-2	R1	11.4	MS451-16E	1152
ACS355-01x-06A7-2	R1	16.0	MS451-20E	1152
ACS150/310/320-01x-06A7-2	R1	16.1	MS451-20E	1152
ACS150/310/320-01x-07A5-2	R2	16.8	MS451-20E	-
ACS355-01x-07A5-2	R2	17.0	MS451-20E	-
ACS150/310/320/355-01x-09A8-2	R2	21.0	MS451-25E	-
3 Phase 200 - 240V				
ACS150/355-03x-02A4-2	R0	4.3	MS132-6.3 & S1-M3-25 ³	1152
ACS310/320-03x-02A6-2	R0	4.7	MS132-6.3 & S1-M3-25 ³	1152
ACS150/355-03x-03A5-2	R0	6.1	MS132-6.3 & S1-M3-25 ³	1152
ACS310/320-03x-03A9-2	R0	6.7	MS132-10 & S1-M3-25 ³	1152
ACS150/355-03x-04A7-2	R1	7.6	MS132-10 & S1-M3-25 ³	1152
ACS310/320-03x-05A2-2	R1	8.4	MS132-10 & S1-M3-25 ³	1152
ACS150/355-03x-06A7-2	R1	11.8	MS451-16E	1152
ACS310/320-03x-07A4-2	R1	13.0	MS451-16E	1152
ACS150/355-03x-07A5-2	R1	12.0	MS451-16E	1152
ACS310/320-03x-08A3-2	R1	13.2	MS451-16E	1152
ACS150/355-03x-09A8-2	R2	14.3	MS451-16E	-
ACS310/320-03x-10A8-2	R2	15.7	MS451-20E	-
ACS355-03x-13A3-2	R2	22.0	MS451-25E	-
ACS310/320-03x-14A6-2	R2	23.9	MS451-25E	-
ACS355-03x-17A6-2	R2	25.0	MS451-32E	-
ACS310/320-03x-19A4-2	R2	27.3	MS451-32E	-
ACS355-03x-24A4-2	R3	41.0	MS451-45E	-
ACS310/320-03x-26A8-2	R3	45.0	MS451-50E	-
ACS355-03x-31A0-2	R4	50.0	MS495-63E	-
ACS310/320-03x-34A1-2	R4	55.0	MS495-63E	-
ACS355-03x-46A2-2	R4	69.0	MS495-75E	-
ACS310/320-03x-50A8-2	R4	76.0	MS495-90E	-
3 Phase 380, 400, 415V ⁴				
ACS150/320/355-03x-01A2-4	R0	2.2	MS132-2.5 & S1-M3-25 ³	1152
ACS310-03x-01A3-4	R0	2.4	MS132-2.5 & S1-M3-25 ³	1152
ACS150/320/355-03x-01A9-4	R0	3.6	MS132-4.0 & S1-M3-25 ³	1152
ACS310-03x-02A1-4	R0	4.0	MS132-6.3 & S1-M3-25 ³	1152
ACS150/320/355-03x-02A4-4	R1	4.1	MS132-6.3 & S1-M3-25 ³	1152
ACS310-03x-02A6-4	R1	4.5	MS132-6.3 & S1-M3-25 ³	1152
ACS150/320/355-03x-03A3-4	R1	6.0	MS132-6.3 & S1-M3-25 ³	1152
ACS310-03x-03A6-4	R1	6.6	MS132-10 & S1-M3-25 ³	1152
ACS150/320/355-03x-04A1-4	R1	6.9	MS132-10 & S1-M3-25 ³	1152
ACS310-03x-04A5-4	R1	7.6	MS132-10 & S1-M3-25 ³	1152
ACS150/320/355-03x-05A6-4	R1	9.6	MS132-10 & S1-M3-25 ³	1152
ACS310-03x-06A2-4	R1	10.6	MS451-16E	1152
ACS150/320-03x-07A3-4	R1	11.6	MS451-16E	1152

Type Code	Frame	Input Amps	MMP Type E ^{1,2}	Min. Encl. Vol. (cu in) ⁵
3 Phase 380, 400, 415V (continued) ⁴				
ACS355-03x-07A3-4	R1	12.0	MS451-16E	1152
ACS310-03x-08A0-4	R1	12.8	MS451-16E	1152
ACS150/320-03x-08A8-4	R1	13.6	MS451-16E	1152
ACS355-03x-08A8-4	R1	14.0	MS451-16E	1152
ACS310-03x-09A7-4	R1	15.0	MS451-20E	1152
ACS320-03x-12A5-4	R3	18.8	MS451-20E	-
ACS150/355-03x-12A5-4	R3	19.0	MS451-20E	-
ACS310-03x-13A8-4	R3	20.7	MS451-25E	-
ACS150/355-03x-15A6-4	R3	22.0	MS451-25E	-
ACS320-03x-15A6-4	R3	22.1	MS451-25E	-
ACS310-03x-17A2-4	R3	24.3	MS451-32E	-
ACS320-03x-23A1-4	R3	30.9	MS451-40E	-
ACS150/355-03x-23A1-4	R3	31.0	MS451-32E	-
ACS310-03x-25A4-4	R3	34.0	MS451-40E	-
ACS150/320/355-03x-31A0-4	R4	52.0	MS495-63E	-
ACS310-03x-34A1-4	R4	57.0	MS495-63E	-
ACS150/320/355-03x-38A0-4	R4	61.0	MS495-63E	-
ACS310-03x-41A8-4	R4	67.0	MS495-75E	-
ACS150/320/355-03x-44A0-4	R4	67.0	MS495-75E	-
ACS310-03x-48A4-4	R4	74.0	MS495-90E	-
3 Phase 440, 460, 480V ⁴				
ACS150/320/355-03x-01A2-4	R0	1.8	MS132-2.5 & S1-M3-25 ³	1152
ACS310-03x-01A3-4	R0	2.0	MS132-2.5 & S1-M3-25 ³	1152
ACS150/320/355-03x-01A9-4	R0	3.0	MS132-4.0 & S1-M3-25 ³	1152
ACS310-03x-02A1-4	R0	3.3	MS132-4.0 & S1-M3-25 ³	1152
ACS150/320/355-03x-02A4-4	R1	3.4	MS132-4.0 & S1-M3-25 ³	1152
ACS310-03x-02A6-4	R1	3.8	MS132-6.3 & S1-M3-25 ³	1152
ACS150/320/355-03x-03A3-4	R1	5.0	MS132-6.3 & S1-M3-25 ³	1152
ACS310-03x-03A6-4	R1	5.5	MS132-6.3 & S1-M3-25 ³	1152
ACS150/320/355-03x-04A1-4	R1	5.8	MS132-6.3 & S1-M3-25 ³	1152
ACS310-03x-04A5-4	R1	6.3	MS132-10 & S1-M3-25 ³	1152
ACS150/320/355-03x-05A6-4	R1	8.0	MS132-10 & S1-M3-25 ³	1152
ACS310-03x-06A2-4	R1	8.8	MS132-10 & S1-M3-25 ³	1152
ACS150/320/355-03x-07A3-4	R1	9.7	MS132-10 & S1-M3-25 ³	1152
ACS310-03x-08A0-4	R1	11.0	MS451-16E	1152
ACS320/355-03x-08A8-4	R1	11.0	MS451-16E	1152
ACS150-03x-08A8-4	R1	11.3	MS451-16E	1152
ACS310-03x-09A7-4	R1	12.0	MS451-16E	1152
ACS320/355-03x-12A5-4	R3	16.0	MS451-20E	-
ACS310-03x-13A8-4	R3	17.0	MS451-20E	-
ACS320/355-03x-15A6-4	R3	18.0	MS451-20E	-
ACS310-03x-17A2-4	R3	20.0	MS451-25E	-
ACS320/355-03x-23A1-4	R3	26.0	MS451-32E	-
ACS310-03x-25A4-4	R3	28.0	MS451-32E	-
ACS320/355-03x-31A0-4	R4	43.0	MS451-45E	-
ACS310-03x-34A1-4	R4	48.0	MS451-50E	-
ACS320/355-03x-38A0-4	R4	51.0	MS495-63E	-
ACS310-03x-41A8-4	R4	56.0	MS495-63E	-
ACS320/355-03x-44A0-4	R4	56.0	MS495-63E	-
ACS310-03x-48A4-4	R4	61.0	MS495-63E	-

NOTES:

- 1) All manual motor protectors listed are Type E self-protected up to 65kA. See ABB publication AC1010 for complete technical data on ABB Type E manual motor protectors.
- 2) Manual motor protectors may require adjusting the trip limit from the factory setting at or above the drive input Amps to avoid nuisance tripping. If the manual motor protector is set to the maximum current trip level and nuisance tripping is occurring, then select the next size MMP. (MS132-10 is the highest size in MS132 frame size to meet Type E at 65kA; the next size up is the MS451-16E)
- 3) Requires use of the S1-M3-25 line side feeder terminal with the manual motor protector to meet Type E self-protection class.
- 4) 480Y/277V only
- 5) Drives using an ABB Type E Manual Motor Protector and noted with a minimum enclosure size must be installed in a ventilated or non-ventilated enclosure having the minimum volume specified in the table. For all drives, the enclosure must be sized to accommodate the specific thermal considerations of the application as well as provide free space for cooling. See the applicable ABB User Manual for free space requirements.

To obtain the most current product documentation go to www.abb.com and select Offerings/Low Voltage AC Drives to navigate to the complete User Manual for the appropriate drive