

CERTIFICATE OF COMPLIANCE

Certificate Number E345003
Report Reference E345003-20090225
Issue Date 2020-12-01

Issued to: ABB Stotz-Kontakt GmbH
Eppelheimer Str 82
69123 Heidelberg GERMANY

This is to certify that
representative samples of Combination Motor Controllers
(See addendum page.)

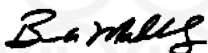
Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 60947-1 & CSA C22.2 No. 60947-1, "Low-Voltage
Switchgear and Controlgear - Part 1: General Rules."
UL 60947-4-1 & CSA C22.2 No. 60947-4-1, "Low-Voltage
Switchgear and Controlgear - Part 4-1: Contactors and
Motor-Starters - Electromechanical Contactors and Motor-
Starters."

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models

USL, CNL - Combination Motor Controllers, Type E and Type F –

MS132 or MO132 followed by -0.16, -0.25, -0.40, -0.63, -1.0, -1.6, -2.5, -4.0, -6.3, -10, -12, -16, -20, -25 or -32, may be followed by K, may be followed by B;

MS132 followed by -0.16L, -0.25L, -0.40L, -0.63L, -1.0L, -1.60L, -2.5L, -4.0L, -6.3L, -10L, -12L, -16L, -20L, -25L or -32L.

Accessory, Terminal Spacers TS1-M3, followed by -S1, -S2 or -K.

General:

These devices are Open, or Enclosed Type, Self-Protected, Type E or Type F, Combination Motor Controllers, intended for use in combination with this manufacturer's Listed Feeder S1-M3 Series (E121190) or Terminal Spacers, ABB, Type TS1-M3-S1 or TS1-M3-S2 or TS1-M3-K. All the short circuit current ratings in this report apply to the combination.

These devices are suitable for use with Listed Panel Mounted Enclosure - DMS132 followed by -Y or -G, covered in File E137861.

These devices are suitable for use with Listed Accessory Bus-Bars PS1 Series (E121190). All the short circuit current ratings in this report apply to the combination.

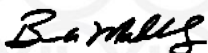
These devices are suitable for use with R/C (NMTR2) Bus Bar System Smisline ZLS Series, Feeder Block ZLS Series and Adapter Unit ZMS and ZLS Series, manufactured by ABB. All the short circuit current ratings in this report apply to the combination.

These devices are suitable for use with Listed contactors, Models AF09-AF16, AF26-AF38 and A40, manufactured by ABB.

These devices are suitable for use with Listed Type BEAxx Series, manufactured by ABB.

These devices are suitable for use with Overload Relays (Optional) – Listed Type EF-19, EF45 or TF42, manufactured by ABB.

These devices are suitable for use with Listed Accessory Connecting Link BEMC/132 (E137861) in combination with Listed mini contactors MC1 / MC2 series in 3-ph applications (E191658).



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These devices are suitable for use with R/C Accessory Bus Bars BEAxx Series (E312527) in combination with Listed contactor Series AF09-AF16, AF26-AF38 and AF40, manufactured by ABB (E312527).

Ratings:

Types E and F:

Range	Motor Rating, Breaking All Lines		
	Single Phase, 50/60 Hz		
	110-120 V ac	240 V ac	480 V ac
	hp / FLA / LRA	hp / FLA / LRA	hp / FLA / LRA
0.1 - 0.16	- / 0.16 / 0.96	- / 0.16 / 0.96	- / 0.16 / 0.96
0.16 - 0.25	- / 0.25 / 1.5	- / 0.25 / 1.5	- / 0.25 / 1.5
0.25 - 0.40	- / 0.4 / 2.4	- / 0.4 / 2.4	- / 0.4 / 2.4
0.40 - 0.63	- / 0.63 / 3.78	- / 0.63 / 3.78	- / 0.63 / 3.78
0.63 - 1.0	- / 1 / 6	- / 1 / 6	- / 1 / 6
1.0 - 1.6	- / 1.6 / 9.6	1/10 / 1.6 / 9.6	- / 1.6 / 9.6
1.6 - 2.5	- / 2.5 / 15	1/6 / 2.5 / 15	1/2 / 2.5 / 15
2.5 - 4.0	1/8 / 4 / 24	1/3 / 4 / 24	1/2 / 4 / 24
4.0 - 6.3	¼ / 6.3 / 37.8	½ / 6.3 / 37.8	1 / 6.3 / 37.8
6.3 - 10.0	½ / 9.8 / 58.8	1½ / 10 / 60	3 / - / -
8.0 - 12.0	1/2 / 9.8 / 58.8	2 / 12 / 72	3 / - / -
10.0 - 16.0	1 / 16 / 96	2 / 12 / 72	5 / - / -
16.0 - 20.0	1-1/2 / 20 / 120	3 / - / -	5 / - / -
20.0 - 25.0	2 / 24 / 144	3 / - / -	7-1/2 / - / -
25.0 - 32.0	2 / 24 / 144	5 / - / -	10 / - / -

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Ratings:

Types E and F:

Range	Motor Rating, Breaking All Lines			
	Three Phase, 50/60 Hz			
	110-120 V ac	220-240 V ac	440-480 V ac	550-600 V ac
	hp / FLA / LRA	hp / FLA / LRA	hp / FLA / LRA	hp / FLA / LRA
0.1 - 0.16	- / 0.16 / 0.96	- / 0.16 / 0.96	- / 0.16 / 0.96	- / 0.16 / 0.96
0.16 - 0.25	- / 0.25 / 1.5	- / 0.25 / 1.5	- / 0.25 / 1.5	- / 0.25 / 1.5
0.25 - 0.40	- / 0.4 / 2.4	- / 0.4 / 2.4	- / 0.4 / 2.4	- / 0.4 / 2.4
0.40 - 0.63	- / 0.63 / 3.78	- / 0.63 / 3.78	- / 0.63 / 3.78	- / 0.63 / 3.78
0.63 - 1.0	- / 1 / 6	- / 1 / 6	- / 1 / 6	1/2 / 1 / 6
1.0 - 1.6	- / 1.6 / 9.6	- / 1.6 / 9.6	3/4 / 1.6 / 9.6	3/4 / 1.6 / 9.6
1.6 - 2.5	- / 2.5 / 15	1/2 / 2.5 / 15	1 / 2.5 / 15	1 1/2 / 2.5 / 15
2.5 - 4.0	- / 4 / 24	1 / 4 / 24	2 / 4 / 24	3 / - / -
4.0 - 6.3	1/2 / 6.3 / 37.8	1 1/2 / 6.3 / 37.8	3 / - / -	5 / - / -
6.3 - 10.0	3/4 / 10 / 60	3 / - / -	5 / - / -	7 1/2 / - / -
8.0 - 12.0	1 1/2 / 12 / 72	3 / - / -	7 1/2 / - / -	-
10.0 - 16.0	2 / 16 / 84	5 / - / -	10 / - / -	-
16.0 - 20.0	3 / - / -	5 / - / -	10 / - / -	-
20.0 - 25.0	3 / - / -	7 1/2 / - / -	15 / - / -	-
25.0 - 32.0	5 / - / -	10 / - / -	20 / - / -	-

Note: For Type F combinations with MC1/MC2 mini contactors and BEMC/132 connecting link, ratings are limited to 3-ph, 11 FLA maximum.

Short Circuit Ratings – Type E

Standard Fault Short Circuit Ratings:

*VOLTAGE, V	CURRENT, kA	CURRENT RANGE
4 8 0 Y / 2 7 7	10	0.16 – 32A
600Y/347	10	0.16 – 10A

Standard Fault Short Circuit Ratings for use with IB132 enclosure:

*VOLTAGE, V	CURRENT, kA	CURRENT RANGE
4 8 0 Y / 2 7 7	10	0.16 – 10A
600Y/347	5	0.16 – 10A

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High-Available Short Circuit Ratings:

VOLTAGE, V	CURRENT, kA	CURRENT RANGE
480Y/277	65	0.16 – 10A
480Y/277	30	12 – 32A
600Y/347	47	0.16 – 4A
600Y/347	18	6.3 - 10A

High-Available Short Circuit Ratings for use with IB132 enclosure:

VOLTAGE, V	CURRENT, kA	CURRENT RANGE
480Y/277	18	0.16 – 10A

Current Element Sizes - Trip current is 125 percent of FLA shown on dial. Dial settings are 0.1 - 0.16, 0.16 - 0.25, 0.25 - 0.40, 0.40 - 0.63, 0.63 - 1.0, 1.0 - 1.6, 1.6 - 2.5, 2.5 - 4.0, 4.0 - 6.3, 6.3 - 10.0, 8.0 - 12.0, 10.0 – 16.0, 16.0 - 20.0, 20.0 – 25.0, 25.0 – 32.0.

High-Available Short Circuit Ratings when used with Current Limiter Series S803W-SCLxxx-SR:

VOLTAGE, V	CURRENT, kA	CURRENT RANGE
480Y/277	65	0.16 – 32A

Short Circuit Ratings – Type F

Standard Fault Short Circuit Ratings:

VOLTAGE, V	CURRENT, kA	CURRENT RANGE
480Y/277	5	0.16 – 32A
600Y/347	5	0.16 – 10A

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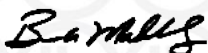


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High-Available Short Circuit Ratings:

Type F - Type 1 Coordination			
Type	Minimum contactor size	SCCR	
		480Y/277	600Y/347
		kA	kA
MS132-0.16	AF09-AF38	100	50
MS132-0.25	AF09-AF38	100	50
MS132-0.40	AF09-AF38	100	50
MS132-0.63	AF09-AF38	100	50
MS132-1.0	AF09-AF38	100	50
MS132-1.6	AF09-AF38	100	50
MS132-2.5	AF09-AF38	100	50
MS132-4.0	AF09-AF38	100	50
MS132-6.3	AF09-AF38	100	47
MS132-10	AF09-AF38	100	30
MS132-12	AF09-AF38	65	30
MS132-16	AF12-AF38	65	30
MS132-20	AF26-AF38	65	—
MS132-25	AF26-AF38	50	—
MS132-32	AF38	50	—



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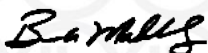
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Type F - Type 2 Coordination			
Type	Minimum contactor size	SCCR	
		480Y/277	600Y/347
		kA	kA
MS132-0.16	AF26-AF38	65	47
MS132-0.25	AF26-AF38	65	47
MS132-0.40	AF26-AF38	65	47
MS132-0.63	AF26-AF38	65	47
MS132-1.0	AF26-AF38	65	47
MS132-1.6	AF26-AF38	65	47
MS132-2.5	AF26-AF38	65	47
MS132-4.0	AF26-AF38	65	47
MS132-6.3	AF26-AF38	65	47
MS132-10	AF26-AF38	65	47
MS132-12	AF26-AF38	30	—
MS132-16	AF26-AF38	30	—
MS132-20	AF26-AF38	30	—
MS132-25	AF26-AF38	30	—
MS132-32	AF26-AF38	30	—



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Type F - Type 1 Coordination				
Type	EOL	Minimum contactor size	SCCR	
			480Y/277	600Y/347
			kA	kA
MO132-0.16	EF19	AF09-AF 38	100	50
MO132-0.25	EF19	AF09-AF 38	100	50
MO132-0.40	EF19	AF09-AF 38	100	50
MO132-0.63	EF19	AF09-AF 38	100	50
MO132-1.0	EF19	AF09-AF 38	100	50
MO132-1.6	EF19	AF09-AF 38	100	50
MO132-2.5	EF19	AF09-AF 38	100	50
MO132-4.0	EF19	AF09-AF 38	100	50
MO132-6.3	EF19	AF09-AF 38	100	50
MO132-10	EF19	AF09-AF 38	100	30
MO132-12	EF19	AF09-AF 38	65	30
MO132-16	EF19	AF12-AF 38	65	30
MO132-20	EF19	AF16-AF 38	65	—
MO132-25	EF45-30	AF26-AF 38	50	—
MO132-32	EF45-45	AF38-AF 38	50	—

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Type F - Type 2 Coordination				
Type	EOL	Minimum contactor size	SCCR	
			480Y/277	600Y/347
			kA	kA
MO132-0.16	EF19	AF26-AF38	65	47
MO132-0.25	EF19	AF26-AF38	65	47
MO132-0.40	EF19	AF26-AF38	65	47
MO132-0.63	EF19	AF26-AF38	65	47
MO132-1.0	EF19	AF26-AF38	65	47
MO132-1.6	EF19	AF26-AF38	65	47
MO132-2.5	EF19	AF26-AF38	65	47
MO132-4.0	EF19	AF26-AF38	65	47
MO132-6.3	EF19	AF26-AF38	65	47
MO132-10	EF19	AF26-AF38	65	47
MO132-12	EF19	AF26-AF38	30	—
MO132-16	EF19	AF26-AF38	30	—
MO132-20	EF19	AF26-AF38	30	—
MO132-25	EF45-30	AF26-AF38	30	—
MO132-32	EF45-45	AF26-AF38	30	—

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Type F - Type 1 Coordination				
Type	EOL	Minimum contactor size	SCCR	
			480Y/277	600Y/347
			kA	kA
MO132-0.16	TF42	AF09-AF 38	65	50
MO132-0.25	TF42	AF09-AF 38	65	50
MO132-0.40	TF42	AF09-AF 38	65	50
MO132-0.63	TF42	AF09-AF 38	65	50
MO132-1.0	TF42	AF09-AF 38	65	50
MO132-1.6	TF42	AF09-AF 38	65	50
MO132-2.5	TF42	AF09-AF 38	65	50
MO132-4.0	TF42	AF09-AF 38	65	50
MO132-6.3	TF42	AF09-AF 38	65	47
MO132-10	TF42	AF09-AF 38	65	30
MO132-12	TF42	AF09-AF 38	65	30
MO132-16	TF42	AF12-AF 38	65	30
MO132-20	TF42	AF16-AF 38	65	30
MO132-25	TF42	AF26-AF 38	50	30
MO132-32	TF42	AF38-AF 38	50	30

Current Element Sizes - Trip current is 125 percent of FLA shown on dial. Dial settings are 0.1 - 0.16, 0.16 - 0.25, 0.25 - 0.40, 0.40 - 0.63, 0.63 - 1.0, 1.0 - 1.6, 1.6 - 2.5, 2.5 - 4.0, 4.0 - 6.3, 6.3 - 10.0, 8.0 - 12.0, 10.0 - 16.0, 16.0 - 20.0, 20.0 - 25.0, 25.0 - 32.0.

High-Available Short Circuit Ratings when used with Current Limiter Series S803W-SCLxxx-SR:

VOLTAGE, V	CURRENT, kA
480Y/277	65

Field Wiring Terminal Ratings

Device	Min. wire size	Max. wire size	Torque	No. of wires
MS132 0.16-10A	16 AWG solid & stranded	12 AWG solid & stranded	10-14 lb-in	1 or 2
MS132 12-32A	16 AWG solid & stranded	8 AWG solid & stranded	18 lb-in	1 or 2
MS132-xxK	18 AWG stranded	8 AWG stranded	-	1
	18 AWG stranded	10 AWG stranded	-	1 or 2

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