

# Manual Motor Starters

## Product Selection Guide

### Quick selection table ... IEC rating



Frame		32AF																					
Type	Current adjustable type	MMS-32S						MMS-32H															
	Instantaneous type	-						MMS-32HI															
Breaking capacity		Standard						High breaking															
Handle Type		Toggle						Rotary															
Number of poles		3						3															
Rated operational voltage (Ue)		Up to 690V						Up to 690V															
Rated frequency		50/60 Hz						50/60 Hz															
Rated insulation voltage (Ui)		690V						690V															
Rated impulse voltage (Uimp)		6kV						6kV															
Utilization category	IEC 60 947-2 (Breaker)	Cat. A						Cat. A															
	IEC 60 947-4 (Motor starter)	AC 3						AC 3															
Mechanical endurance (Operating)		100,000						100,000															
Electrical endurance (Cycles)		100,000						100,000															
Max operating frequency per hour (Ope./h)		25						25															
Temperature compensation (Operation)		-20 ~ +60°C						-20 ~ +60°C															
Instantaneous short circuit release		13 × I <sub>e</sub> max.						13 × I <sub>e</sub> max.															
Overload protection		o						o															
Phase failure function		o						o															
Trip indicating function		x						x															
Test function		o						o															
Weight (g)		320						360															
Rated breaking capacity (kA)	Rated operational current (I <sub>e</sub> )	Thermal release Adjustment range (A)	220V 240V 230V		415V 400V		460V 440V		525V 500V		690V 600V		220V 240V 230V		415V 400V		460V 440V		525V 500V		690V 600V		
			I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	
	0.16	0.1-0.16	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	0.25	0.16-0.25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	0.4	0.25-0.4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	0.63	0.4-0.63	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	1	0.63-1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	1.6	1-1.6	100	100	100	100	100	100	100	100	3	3	100	100	100	100	100	100	100	100	100	100	100
	2.5	1.6-2.5	100	100	100	100	100	100	50	38	3	3	100	100	100	100	100	100	100	100	100	8	8
	4	2.5-4	100	100	100	100	50	38	15	11	3	3	100	100	100	100	100	100	100	100	8	8	8
	6	4-6	100	100	100	100	15	11	10	8	3	3	100	100	100	100	100	100	100	100	6	6	6
	8	5-8	100	100	100	100	15	11	10	8	3	3	100	100	100	100	50	38	50	38	6	6	6
	10	6-10	100	100	50	38	15	11	6	5	3	3	100	100	100	100	50	38	50	38	6	6	6
	13	9-13	100	100	50	38	10	8	6	5	3	3	100	100	100	100	50	38	42	32	6	6	6
	17	11-17	50	38	20	15	10	8	6	5	3	3	100	100	50	38	20	15	10	8	4	4	4
	22	14-22	40	30	15	11	8	6	6	5	3	3	100	100	50	38	20	15	10	8	4	4	4
	26	18-26	40	30	15	11	8	6	5	4	3	3	100	100	50	38	20	15	10	8	4	4	4
32	22-32	30	22	15	11	6	4	5	4	3	3	100	100	50	38	20	15	10	8	4	4	4	
40	28-40	20	15	10	8	5	3	4	3	2	2	100	100	40	30	15	11	8	6	3	3	3	
50	34-50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
63	45-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
65	47-65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
75	55-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
90	70-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100	80-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



63AF															100AF														
MMS-63S					MMS-63H					MMS-63HI					MMS-100S					MMS-100H					MMS-100HI				
Standard					High breaking					Standard					High breaking					Standard					High breaking				
Rotary					Rotary					Rotary					Rotary					Rotary					Rotary				
3					3					3					3					3					3				
Up to 690V					Up to 690V					Up to 690V					Up to 690V					Up to 690V					Up to 690V				
50/60 Hz					50/60 Hz					50/60 Hz					50/60 Hz					50/60 Hz					50/60 Hz				
1,000V					1,000V					1,000V					1,000V					1,000V					1,000V				
8kV					8kV					8kV					8kV					8kV					8kV				
Cat. A					Cat. A					Cat. A					Cat. A					Cat. A					Cat. A				
AC 3					AC 3					AC 3					AC 3					AC 3					AC 3				
50,000					50,000					50,000					50,000					50,000					50,000				
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-20 ~ +60°C					-20 ~ +60°C					-20 ~ +60°C					-20 ~ +60°C					-20 ~ +60°C					-20 ~ +60°C				
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1,000					1,000					2,200					2,200					2,200					2,200				
220V 240V 230V	415V 400V	460V 440V	525V 500V	690V 600V	220V 240V 230V	415V 400V	460V 440V	525V 500V	690V 600V	220V 240V 230V	415V 400V	460V 440V	525V 500V	690V 600V	220V 240V 230V	415V 400V	460V 440V	525V 500V	690V 600V	220V 240V 230V	415V 400V	460V 440V	525V 500V	690V 600V					
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100	100	25	19	10	8	6	5	4	3	100	100	50	50	50	38	12	9	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	100	100	50	50	50	38	12	9	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	100	100	50	50	35	27	12	9	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	100	100	50	50	35	27	10	8	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	100	100	50	50	35	27	10	8	5	5	100	100	50	38	40	30				
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50	38	25	19	10	8	6	5	4	3	100	100	50	50	35	27	10	8	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	100	100	50	50	35	27	10	8	5	5	100	100	50	38	40	30				
50	38	25	19	10	8	6	5	4	3	75	50	35	27	25	19	6	5	3	3	-	-	-	-	-	-				
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