

Manual motor starters

Technical information

Manual motor controller (UL 508, CSA C22.2 as Manual motor controllers)



Combination Motor Controller

- Group Installation
- Type E starter

MMS 32S

Rated operational current I_e [A]		0.16	0.25	0.4	0.63	1	1.6	2.5	4	6	8	10	13	17	22	26	32	40	
Max. short-circuit current																			
240V	[kA]	100	100	100	100	100	100	100	100	100	100	50	50	40	30	30	20	20	
480V	[kA]	50	50	50	50	50	50	50	50	25	25	10	10	10	10	7.5	7.5	7.5	
600V	[kA]	10	10	10	10	10	10	10	5	5	5	5	5	5	5	5	5	5	
Motor load																			
1 Phase	115V	[HP]	-	-	-	-	-	-	1/8	1/4	1/3	1/2	1/2	1	1½	2	2	3	
	230V	[HP]	-	-	-	-	1/10	1/6	1/3	1/2	1	1½	2	3	3	3	5	7½	
3 Phase	200V	[HP]	-	-	-	-	-	1/2	3/4	1	2	2	3	3	5	7½	7½	10	
	230V	[HP]	-	-	-	-	-	1/2	3/4	1½	2	3	3	5	7½	7½	10	10	
	460V	[HP]	-	-	-	-	3/4	1	2	3	5	5	7½	10	15	15	20	30	
	575V	[HP]	-	-	-	-	1/2	3/4	1½	3	5	5	7½	10	15	20	30	30	
Max. fuse size	[A]	1	1	1	1	3	6	10	15	20	30	40	50	60	80	100	125	125	
Max. breaker size	[A]	15	15	15	15	15	15	15	15	20	30	40	50	60	80	100	125	125	

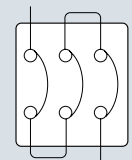
MMS 63S

Rated operational current I_e [A]		10	13	17	22	26	32	40	50	63	65
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	50	50	40	40	40	40	40	40	40	40
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V	[HP]	1/2	1/2	1	1½	2	2	3	5	5
	230V	[HP]	1½	2	3	3	3	5	7½	10	10
3 Phase	200V	[HP]	2	3	3	5	7½	7½	10	15	20
	230V	[HP]	3	3	5	7½	7½	10	10	15	20
	460V	[HP]	5	7½	10	15	15	20	30	30	40
	575V	[HP]	7½	10	15	20	20	30	30	40	60
Maximum rated current of fuse or breaker	[A]	600	600	600	600	600	600	600	600	600	600

MMS 100S

Rated operational current I_e [A]		17	22	26	32	40	50	63	75	90	100
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	50	50	50	50	50	50	40	40	40	40
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V	[HP]	1	1½	2	2	3	3	5	5	10
	230V	[HP]	3	3	3	5	7½	10	10	15	20
3 Phase	200V	[HP]	3	5	7½	7½	10	15	20	20	30
	230V	[HP]	5	7½	7½	10	10	15	20	25	30
	460V	[HP]	10	15	15	20	30	30	40	50	75
	575V	[HP]	15	20	20	30	30	40	60	60	75
Maximum rated current of fuse or breaker	[A]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

In case of 1-phase use in series as shown below



Combination Motor Controller
- Group Installation
- Type E starter



MMS 32H

Rated operational current I_e [A]		0.16	0.25	0.4	0.63	1	1.6	2.5	4	6	8	10	13	17	22	26	32	40	
Max. short-circuit current																			
240V	[kA]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
480V	[kA]	65	65	65	65	65	65	65	65	65	65	65	65	30	30	30	30	30	30
600V	[kA]	25	25	25	25	25	25	25	25	25	25	25	25	10	10	10	10	10	10
Motor load																			
1 Phase	115V [HP]	-	-	-	-	-	-	-	1/8	1/4	1/3	1/2	1/2	1	1½	2	2	3	
	230V [HP]	-	-	-	-	-	1/10	1/6	1/3	1/2	1	1½	2	3	3	3	5	7½	
3 Phase	200V [HP]	-	-	-	-	-	-	1/2	3/4	1	2	2	3	3	5	7½	7½	10	
	230V [HP]	-	-	-	-	-	-	1/2	3/4	1½	2	3	3	5	7½	7½	10	10	
	460V [HP]	-	-	-	-	-	3/4	1	2	3	5	5	7½	10	15	15	20	30	
	575V [HP]	-	-	-	-	1/2	3/4	1½	3	5	5	7½	10	15	20	20	30	30	
Maximum rated current of fuse or breaker		[A]	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500

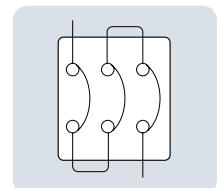
MMS 63H

Rated operational current I_e [A]		10	13	17	22	26	32	40	50	63	65
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	65	65	50	50	50	50	50	50	50	50
600V	[kA]	25	25	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V [HP]	1/2	1/2	1	1½	2	2	3	3	5	5
	230V [HP]	1½	2	3	3	3	5	7½	10	10	10
3 Phase	200V [HP]	2	3	3	5	7½	7½	10	15	20	20
	230V [HP]	3	3	5	7½	7½	10	10	15	20	20
	460V [HP]	5	7½	10	15	15	20	30	30	40	40
	575V [HP]	7½	10	15	20	20	30	30	40	60	60
Maximum rated current of fuse or breaker		[A]	600	600	600	600	600	600	600	600	600

MMS 100H

Rated operational current I_e [A]		17	22	26	32	40	50	63	75	90	100
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	65	65	65	65	65	65	50	50	50	50
600V	[kA]	25	25	25	20	20	20	10	10	10	10
Motor load											
1 Phase	115V [HP]	1	1½	2	2	3	3	5	5	7½	10
	230V [HP]	3	3	3	5	7½	10	10	15	20	20
3 Phase	200V [HP]	3	5	7½	7½	10	15	20	20	25	30
	230V [HP]	5	7½	7½	10	10	15	20	25	30	30
	460V [HP]	10	15	15	20	30	30	40	50	60	75
	575V [HP]	15	20	20	30	30	40	60	60	75	100
Maximum rated current of fuse or breaker		[A]	1000	1000	1000	1000	1000	1000	1000	1000	1000

In case of 1-phase use in series as shown below



Manual motor starters

Technical information

Manual motor controller (UL508)



MMS 32S

Rated operational current I_e [A]		0.16	0.25	0.4	0.63	1	1.6	2.5	4	6	8	10	13	17	22	26	32	40	
Max. short-circuit current																			
240V	[kA]	100	100	100	100	100	100	100	100	100	100	50	50	40	30	30	20	20	
480V	[kA]	50	50	50	50	50	50	50	50	25	25	10	10	10	10	7.5	7.5	7.5	
600V	[kA]	10	10	10	10	10	10	10	5	5	5	5	5	5	5	5	5	5	
Motor load																			
1 Phase	115V	[HP]	-	-	-	-	-	-	1/8	1/4	1/3	1/2	1/2	1	1½	2	2	3	
	230V	[HP]	-	-	-	-	-	1/10	1/6	1/3	1/2	1	1½	2	3	3	5	7½	
3 Phase	200V	[HP]	-	-	-	-	-	1/2	3/4	1	2	2	3	3	5	7½	7½	10	
	230V	[HP]	-	-	-	-	-	1/2	3/4	1½	2	3	3	5	7½	7½	10	10	
	460V	[HP]	-	-	-	-	-	3/4	1	2	3	5	5	7½	10	15	15	20	
	575V	[HP]	-	-	-	-	1/2	3/4	1½	3	5	5	7½	10	15	20	20	30	
Max. fuse size		[A]	1	1	1	1	3	6	10	15	20	30	40	50	60	80	100	125	150
Max. breaker size		[A]	15	15	15	15	15	15	15	20	30	40	50	60	80	100	125	150	

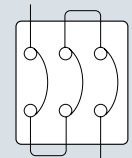
MMS 63S

Rated operational current I_e [A]		10	13	17	22	26	32	40	50	63	65
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	25	25	25	25	25	25	25	25	25	25
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V	[HP]	1/2	1/2	1	1½	2	2	3	5	5
	230V	[HP]	1½	2	3	3	3	5	7½	10	10
3 Phase	200V	[HP]	2	3	3	5	7½	7½	10	15	20
	230V	[HP]	3	3	5	7½	7½	10	10	15	20
	460V	[HP]	5	7½	10	15	15	20	30	30	40
	575V	[HP]	7½	10	15	20	20	30	30	40	60
Max. fuse size		[A]	40	50	60	80	100	125	150	200	250
Max. breaker size		[A]	40	50	60	80	100	125	150	200	250

MMS 100S

Rated operational current I_e [A]		17	22	26	32	40	50	63	75	90	100
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	25	25	25	25	25	25	25	25	25	25
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V	[HP]	1	1½	2	2	3	3	5	5	7½
	230V	[HP]	3	3	3	5	7½	10	10	15	20
3 Phase	200V	[HP]	3	5	7½	7½	10	15	20	20	25
	230V	[HP]	5	7½	7½	10	10	15	20	25	30
3 Phase	460V	[HP]	10	15	15	20	30	30	40	50	60
	575V	[HP]	15	20	20	30	30	40	60	60	75
Max. fuse size		[A]	60	80	100	125	150	200	250	300	350
Max. breaker size		[A]	60	80	100	125	150	200	250	300	350

In case of 1-phase use in series as shown below





MMS 32H

Rated operational current I_e [A]		0.16	0.25	0.4	0.63	1	1.6	2.5	4	6	8	10	13	17	22	26	32	40	
Max. short-circuit current																			
240V	[kA]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
480V	[kA]	50	50	50	50	50	50	50	50	50	50	50	50	30	30	30	30	30	30
600V	[kA]	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Motor load																			
1 Phase	115V [HP]	-	-	-	-	-	-	-	1/8	1/4	1/3	1/2	1/2	1	1½	2	2	3	
	230V [HP]	-	-	-	-	-	1/10	1/6	1/3	1/2	1	1½	2	3	3	3	5	7½	
3 Phase	200V [HP]	-	-	-	-	-	-	1/2	3/4	1	2	2	3	3	5	7½	7½	10	
	230V [HP]	-	-	-	-	-	-	1/2	3/4	1½	2	3	3	5	7½	7½	10	10	
	460V [HP]	-	-	-	-	-	3/4	1	2	3	5	5	7½	10	15	15	20	30	
	575V [HP]	-	-	-	-	1/2	3/4	1½	3	5	5	7½	10	15	20	20	30	30	
Max. fuse size	[A]	1	1	1	1	3	6	10	15	20	30	40	50	60	80	100	125	150	
Max. breaker size	[A]	15	15	15	15	15	15	15	15	20	30	40	50	60	80	100	125	150	

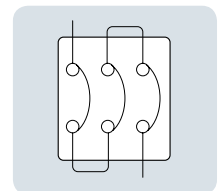
MMS 63H

Rated operational current I_e [A]		10	13	17	22	26	32	40	50	63	65
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	50	50	50	50	50	50	50	50	50	50
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V [HP]	1/2	1/2	1	1½	2	2	3	3	5	5
	230V [HP]	1½	2	3	3	3	5	7½	10	10	10
3 Phase	200V [HP]	2	3	3	5	7½	7½	10	15	20	20
	230V [HP]	3	3	5	7½	7½	10	10	15	20	20
	460V [HP]	5	7½	10	15	15	20	30	30	40	40
	575V [HP]	7½	10	15	20	20	30	30	40	60	60
Max. fuse size	[A]	40	50	60	80	100	125	150	200	250	250
Max. breaker size	[A]	40	50	60	80	100	125	150	200	250	250

MMS 100H

Rated operational current I_e [A]		17	22	26	32	40	50	63	75	90	100
Max. short-circuit current											
240V	[kA]	100	100	100	100	100	100	100	100	100	100
480V	[kA]	50	50	50	50	50	50	50	50	50	50
600V	[kA]	10	10	10	10	10	10	10	10	10	10
Motor load											
1 Phase	115V [HP]	1	1½	2	2	3	3	5	5	7½	10
	230V [HP]	3	3	3	5	7½	10	10	15	20	20
3 Phase	200V [HP]	3	5	7½	7½	10	15	20	20	25	30
	230V [HP]	5	7½	7½	10	10	15	20	25	30	30
	460V [HP]	10	15	15	20	30	30	40	50	60	75
	575V [HP]	15	20	20	30	30	40	60	60	75	100
Max. fuse size	[A]	60	80	100	125	150	200	250	300	350	400
Max. breaker size	[A]	60	80	100	125	150	200	250	300	350	400

In case of 1-phase use in series as shown below



Manual motor starters

Numbering system

Numbering [Manual Motor Starter]

MMS	-	32		S		0.16A
Series		Ampere frame		Type of breaker		Max. adjustable current
Manual motor starter		32 32AF		S Standard breaking capacity		0.16A 0.1~0.16A
		63 63AF		H High breaking capacity		⋮
		100 100AF		HI High breaking capacity and Instantaneous break only		100A 80~100A

Catalog Numbering [Aux. contact, Alarm, Release unit]

L	-	X		11
Direction of install		Type of accessory		Contact Configuration Or Operating voltage
F Front		X Aux. contact		11 1NO1NC
L Left side		A Alarm switch		20 2NO
R Right side		AM Short circuit alarm		02 2NC
		U Under voltage release (UVT)		24V 50Hz/28V 60Hz
		UX UVT operating with MMS handle		⋮
		S Shunt release (SHT)		415~440V 50Hz/460~480V 60Hz