

Manual motor starter

0.10 to 32 A – with thermal and electromagnetic protection

Description

MS116 Manual motor starters with short Circuit, overload and phase loss protection



Direct on line starter:

Rated Power 415V KW	Ie current setting Range Amp	S/C Ics Breaking Capacity kA	Type	Order code
0.03	0.10 ... 0.16	50	MS116-0.16	1SAM250000R1001
0.06	0.16 ... 0.25	50	MS116-0.25	1SAM250000R1002
0.09	0.25 ... 0.40	50	MS116-0.4	1SAM250000R1003
0.12	0.40 ... 0.63	50	MS116-0.63	1SAM250000R1004
0.25	0.63 ... 1.00	50	MS116-1.0	1SAM250000R1005
0.55	1.00 ... 1.60	50	MS116-1.6	1SAM250000R1006
0.75	1.60 ... 2.50	50	MS116-2.5	1SAM250000R1007
1.5	2.50 ... 4.00	50	MS116-4.0	1SAM250000R1008
2.2	4.00 ... 6.30	50	MS116-6.3	1SAM250000R1009
4.0	6.30 ... 10.0	50	MS116-10	1SAM250000R1010
5.5	8.00 ... 12.0	25	MS116-12	1SAM250000R1012
7.5	10.0 ... 16.0	16	MS116-16	1SAM250000R1011
9.0	16.0 ... 20.0	10	MS116-20	1SAM250000R1013
12.5	20.0 ... 25.0	10	MS116-25	1SAM250000R1014
15.5	25.0 ... 32.0	10	MS116-32	1SAM250000R1015

MS132 Manual motor starters with Short Circuit, overload and phase loss protection



0.03	0.10 ... 0.16	100	MS132-0.16	1SAM350000R1001
0.06	0.16 ... 0.25	100	MS132-0.25	1SAM350000R1002
0.09	0.25 ... 0.40	100	MS132-0.4	1SAM350000R1003
0.12	0.40 ... 0.63	100	MS132-0.63	1SAM350000R1004
0.25	0.63 ... 1.00	100	MS132-1.0	1SAM350000R1005
0.55	1.00 ... 1.60	100	MS132-1.6	1SAM350000R1006
0.75	1.60 ... 2.50	100	MS132-2.5	1SAM350000R1007
1.5	2.50 ... 4.00	100	MS132-4.0	1SAM350000R1008
2.2	4.00 ... 6.30	100	MS132-6.3	1SAM350000R1009
4.0	6.30 ... 10.0	100	MS132-10	1SAM350000R1010
5.5	8.00 ... 12.0	100	MS132-12	1SAM350000R1012
7.5	10.0 ... 16.0	100	MS132-16	1SAM350000R1011
9.0	16.0 ... 20.0	100	MS132-20	1SAM350000R1013
12.5	20.0 ... 25.0	50	MS132-25	1SAM350000R1014
15.5	25.0 ... 32.0	25	MS132-32	1SAM350000R1015

MO132 Manual motor starters with short circuit protection only



0.03	0.16	100	MO132-0.16	1SAM360000R1001
0.06	0.25	100	MO132-0.25	1SAM360000R1002
0.09	0.40	100	MO132-0.4	1SAM360000R1003
0.12	0.63	100	MO132-0.63	1SAM360000R1004
0.25	1.0	100	MO132-1.0	1SAM360000R1005
0.55	1.6	100	MO132-1.6	1SAM360000R1006
0.75	2.5	100	MO132-2.5	1SAM360000R1007
1.5	4.0	50	MO132-4.0	1SAM360000R1008
2.2	6.3	50	MO132-6.3	1SAM360000R1009
4.0	10	50	MO132-10	1SAM360000R1010
5.5	12	50	MO132-12	1SAM360000R1012
7.5	16	50	MO132-16	1SAM360000R1011
9.0	20	50	MO132-20	1SAM360000R1013
12.5	25	50	MO132-25	1SAM360000R1014
15.5	32	25	MO132-32	1SAM360000R1015

■ Stock items

Manual motor starter

MS132-T circuit breakers for transformer protection



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Description

MS132-T Circuit breakers for transformer protection are electro mechanical protection devices specially designed to protect control transformers on the primary side. The short-circuit current setting is fixed to 20 times the operating current to handle the high inrush current generated by transformers.

le current setting Range Amp	S/C Ics Breaking Capacity kA	Type	Order code
0.10 ... 0.16	100	MS132-0.16T	1SAM340000R1001
0.16 ... 0.25	100	MS132-0.25T	1SAM340000R1002
0.25 ... 0.40	100	MS132-0.4T	1SAM340000R1003
0.40 ... 0.63	100	MS132-0.63T	1SAM340000R1004
0.63 ... 1.00	100	MS132-1.0T	1SAM340000R1005
1.00 ... 1.60	100	MS132-1.6T	1SAM340000R1006
1.60 ... 2.50	100	MS132-2.5T	1SAM340000R1007
2.50 ... 4.00	100	MS132-4.0T	1SAM340000R1008
4.00 ... 6.30	100	MS132-6.3T	1SAM340000R1009
6.30 ... 10.0	100	MS132-10T	1SAM340000R1010
8.00 ... 12.0	100	MS132-12T	1SAM340000R1012
10.0 ... 16.0	100	MS132-16T	1SAM340000R1011
16.0 ... 20.0	100	MS132-20T	1SAM340000R1013
20.0 ... 25.0	50	MS132-25T	1SAM340000R1014

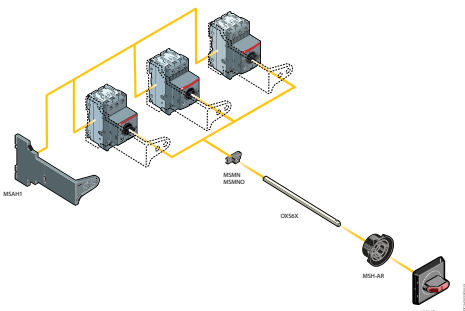
MS116, MS132, MO132, MS4xx, MO4xx

General accessories

Description

With this solution of door coupling rotary mechanism it is possible to operate a Manual Motor Starter in the back of a switch cabinet from outside. The door coupling mechanism prevents opening of the door of a switch cabinet with the Manual Motor Starter in ON position. The complete mechanism includes handle, shaft, driver, shaft alignment ring and shaft supporter. All accessories fit for 6 mm shafts with a maximum length of 180 mm. The degree of protection for handles MSHD is IP64.

Ordering details



Rated Power 415V KW	le current setting Range Amp	Type	Order code
MS116 MS132 MO132 MS4xx, MO4xx	SHAFT - Shaft diameter 6 mm. Shaft extension for door coupling driver	OX6X130	1SCA101655R1001
	MSHD - Handle	MSHD-LB	1SAM201920R1001
		MSHD-LY	1SAM201920R1002
		MSHD-LTB	1SAM201920R1011
		MSHD-LTY	1SAM201920R1012
	MSMN- Driver	MSMN	1SAM101923R0002
		MSMNO	1SAM101923R0012
	MSH-AR Shaft alignment ring	MSH-AR	1SAM201920R1000
MS116, MS132	MSAH1-Shaft	MSAH1	1SAM201909R1021

■ Stock items

Manual motor starter

Accessories for MS116, MS132, MO132, MS132-T



AA1-24

Shunt trip					Undervoltage release		
Suitable for	Rated voltage	Type	Order code	M.R.P.(₹)	Rated voltage	Type	Order code
MS116, MS132, MO132, MS132-T	20 ... 24	AA1-24	1SAM201910R1001		24	UA1-24	1SAM201904R1001
	110	AA1-110	1SAM201910R1002		110	UA1-110	1SAM201904R1004
	200-240	AA1-230	1SAM201910R1003		230	UA1-230	1SAM201904R1005
	350-415	AA1-400	1SAM201910R1004		415	UA1-415	1SAM201904R1007



HKF1-11

		Auxiliary contacts – mountable on the front			Auxiliary contacts – mountable on the right	
Suitable for	Aux contacts	Type	Order code	M.R.P.(₹)	Type	Order code
MS116, MS132, MO132, MS132-T	1NO+1NC	HKF1-11	1SAM201901R1001		HK1-11	1SAM201902R1001
	2 NO	HKF1-20	1SAM201901R1002		HK1-20	1SAM201902R1002
	2 NC	-	-		HK1-02	1SAM201902R1003



SK1-11

Signaling contacts – mountable on the right

Auxiliary contacts – mountable on the front

Suitable for	Aux contacts	Type	Order code
MS116, MS132, MO132, MS132-T	1NO+1NC	SK1-11**	1SAM201903R1001
	2 NO	SK1-20**	1SAM201903R1002
	2 NC	SK1-02**	1SAM201903R1003
MS132,	1NO+1NC	CK1-11#	1SAM301901R1001
MS132-T	2 NO	CK1-20#	1SAM301901R1002
	2 NC	CK1-02#	1SAM301901R1003

**for tripped alarm, max 2 piece

#for short-circuit alarm, max. 2 pieces



CK1-11

Manual motor starter

MS450, MS495, MS495 Manual motor starters



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Description

MS450 Manual motor starters with short Circuit, overload and phase loss protection

Rated Power 415V KW	Ie current setting Range Amp	S/C Ics Breaking Capacity kA	Type	Order code
18.5	28.0 ... 40.0	25	MS450-40	1SAM450000R1005
22	36.0 ... 45.0	25	MS450-45	1SAM450000R1006
22	40.0 ... 50.0	25	MS450-50	1SAM450000R1007
30	45.0 ... 63.0	25	MS495-63	1SAM550000R1007
MS495 Manual motor starters with short Circuit, overload and phase loss protection				
37	57.0 ... 75.0	25	MS495-75	1SAM550000R1008
45	70.0 ... 90.0	25	MS495-90	1SAM550000R1009
55	80.0 100.0	25	MS495-100	1SAM550000R1010
MS497 Manual motor starters with short Circuit, overload and phase loss protection				
15	22.0 ... 32.0	50	MS497-32	1SAM580000R1004
18.5	28.0 ... 40.0	50	MS497-40	1SAM580000R1005
22	36.0 ... 50.0	50	MS497-50	1SAM580000R1006
30	45.0 ... 63.0	50	MS497-63	1SAM580000R1007
37	57.0 ... 75.0	50	MS497-75	1SAM580000R1008
45	70.0 ... 90.0	50	MS497-90	1SAM580000R1009
55	80.0 ... 100.	50	MS497-100	1SAM580000R1010

MO450, MO495, MO495 Manual motor starters



Description

MO450 Manual motor starters with short Circuit protection only

Rated Power 415V KW	Ie current setting Range Amp	S/C Ics Breaking Capacity kA	Type	Order code
18.5	40	25	MO450-40	1SAM460000R1005
22	45	25	MO450-45	1SAM460000R1006
22	50	25	MO450-50	1SAM460000R1007
MO495 Manual motor starters with short Circuit, overload and phase loss protection				
30	32	25	MO495-63	1SAM560000R1007
37	40	25	MO495-75	1SAM560000R1008
45	50	25	MO495-90	1SAM560000R1009
55	63	25	MO495-100	1SAM560000R1010
MO497 Manual motor starters with short Circuit, overload and phase loss protection				
15	32	50	MO497-32	1SAM590000R1004
18.5	40	50	MO497-40	1SAM590000R1005
22	50	50	MO497-50	1SAM590000R1006
30	63	50	MO497-63	1SAM590000R1007
37	75	50	MO497-75	1SAM590000R1008
45	90	50	MO497-90	1SAM590000R1009
55	100	50	MO497-100	1SAM590000R1010

Manual motor starter

Accessories for MS4xx



HK4-11

Auxiliary contacts – mountable on the front					Auxiliary contacts – mountable on the right			
Suitable for	Aux contacts	Type	Order code	M.R.P.(₹)	Rated voltage	Type	Order code	M.R.P.(₹)
MS45x, MS49x, MO45x, MO49x	1NO+1NC	HK4-11	1SAM401901R1001		1NO+1NC	HK4-11	1SAM401902R1001	
					2 NO	HK4-20	1SAM401902R1002	
					2 NC	HK4-02	1SAM401902R1003	



SK4-11

Signaling contacts – mountable on the right*				
Suitable for	Aux contacts	Type	Order code	M.R.P.(₹)
MS45x, MS49x, MO45x, MO49x	1NO+1NC	SK4-11	1SAM401904R1001	

*for tripped alarm, max 2 piece



AA4-24

Shunt trip units – mountable on the right					Undervoltage release mountable on the right			
Suitable for	Rated voltage	Type	Order code	M.R.P.(₹)	Rated voltage	Type	Order code	M.R.P.(₹)
MS45x, MS49x, MO45x, MO49x	20 ... 24	AA4-24	1SAM401907R1001	3,050	24	UA4-24	1SAM401905R1004	
	110	AA4-110	1SAM401907R1002	3,050	110	UA4-110	1SAM401905R1001	
	200-240	AA4-230	1SAM401907R1003	3,050	230	UA4-230	1SAM401905R1002	
	350-415	AA4-400	1SAM401907R1004	3,050	415	UA4-415	1SAM401905R1002	