



 PRODUCT-DETAILS

MS116-20

MS116-20 Manual Motor Starter 16 ... 20 A



Información General

Tipo de producto extendido	MS116-20
Código de producto	1SAM250000R1013
EAN	4013614405655
Descripción corta	MS116-20 Manual Motor Starter 16 ... 20 A

Descripción larga	<p>The MS116-20 manual motor starter (also known as motor protection circuit breaker or manual motor protector) is a compact 45 mm width device with a rated operational current of $I_e = 20.0$ A. This device is used to manually switch on and off motors and to protect them reliably and without the need for a fuse from short-circuits, overload and phase failures. The manual motor starter offers a rated service short-circuit breaking capacity $I_{cs} = 10$ kA at 400 VAC and trip class 10A. Further features are the build-in disconnect function, temperature compensation, trip-free mechanism and a rotary handle with a clear switch position indication. The manual motor starter is suitable for three- and single-phase applications. Auxiliary contacts, signaling contacts, undervoltage releases, shunt trips, 3-phase bus bars, power in-feed blocks and locking devices for protection against unauthorized changes are available as accessory.</p>
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Clasificación

Cantidad mínima de pedido	1 piece
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Código arancelario

85362010

Descargas Populares

Ficha técnica, información técnica	2CDC131025D0201
Instrucciones y manuales	2CDC131011M6802
Instrucciones y manuales (parte 2)	2CDC131060M0202
Curva característica tiempo-corriente	1SAM200505F0013
I ² t Característica	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003
Característica de la corriente de corte	1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
Dibujo dimensional CAD	2CDC001079B0201
Diagrama de dimensiones	1SAM200420F0001

Dimensiones

Ancho del product	45 mm
Alto del producto	97.8 mm
Largo del product	85.4 mm
Peso del product	0.31 kg

Technical

Capacidad nominal de corte en cortocircuito en servicio (I _{cs})	(230 V AC) 10 kA (400 V AC) 10 kA (440 V AC) 3 kA (500 V AC) 3 kA (690 V AC) 2 kA
Capacidad nominal de corte en cortocircuito (I _{cu})	(230 V AC) 16 kA (400 V AC) 16 kA (440 V AC) 15 kA (500 V AC) 10 kA (690 V AC) 3 kA
Ajuste de la corriente de cortocircuito instantánea nominal (I _i)	300 A
Rango de ajuste	16 ... 20 A
Potencia operativa nominal AC-3 (P _e)	(400 V) Three Phase 7.5 kW
Potencia operativa nominal AC-3e (P _e)	(400 V) Three Phase 7.5 kW
Tensión nominal de operación	Main Circuit 690 V AC
Corriente nominal de funcionamiento (I _e)	20 A
Corriente nominal de funcionamiento AC-3 (I _e)	20 A
Corriente nominal de funcionamiento AC-3e (I _e)	20 A
Frecuencia nominal (f)	Main Circuit 50 Hz

	Main Circuit 60 Hz
Tensión nominal soportada por impulsos (U_{imp})	Main Circuit 6 kV
Tensión nominal de aislamiento (U_i)	690 V
Pérdida de potencia	at Rated Operating Conditions per Pole 1.5 ... 2.3 W
Número de polos	3
Corriente térmica convencional de aire libre (I_{th})	Main Circuit 20 A
Grado de protección	Housing IP20 Main Circuit Terminals IP10
Grado de contaminación	3
Durabilidad eléctrica	50000 cycle
Durabilidad mecánica	100000 cycle
Tipo de terminal	Screw Terminals
Capacidad de conexión del circuito principal	Flexible with Ferrule 1/2x 0.75 ... 6 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm ² Flexible 1/2x 1 ... 2.5 mm ² Flexible 1/2x 2.5 ... 6 mm ² Rigid 1/2x 1 ... 2.5 mm ² Rigid 1/2x 2.5 ... 6 mm ²
Par de apriete	Main Circuit 2 N·m
Longitud de pelado del cable	Main Circuit 10 mm
Destornillador recomendado	Pozidriv 2
Posición de montaje	1 ... 6
Montaje en contactores	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Distancia mínima de montaje	Electrical Conductive Board, Horizontal - Up to 400 V 0 mm Electrical Conductive Board, Horizontal - Up to 690 V 1.5 mm Electrical Conductive Board, Vertical 75 mm Other Device Same Type, Horizontal 0 mm Other Device Same Type, Vertical 150 mm
Tipo de actuador	Rotary Handle
Indicación de la posición del contacto	ON / OFF
Normas	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1

Technical UL/CSA

Capacidad de corriente de cortocircuito (SCCR)	Any UL Listed Fuses or Circuit-Breakers, Group Installations (480 V AC) 18 kA Any UL Listed Fuses or Circuit-Breakers, Group Installations (600 V AC) 5 kA Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (480 V AC) 18 kA Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (600 V AC) 5 kA
Tensión máxima de funcionamiento UL/CSA	Main Circuit 600 V AC
Potencia nominal UL/CSA	(200 V AC) Three Phase 5 Hp (208 V AC) Three Phase 5 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 15 Hp
Amperios a plena carga	(200 V AC) Three Phase 17.5 A

Uso del motor	(208 V AC) Three Phase 16.7 A (220 ... 240 V AC) Three Phase 15.2 A (440 ... 480 V AC) Three Phase 10 A (550 ... 600 V AC) Three Phase 15 A
Rotor bloqueado Amperios	(200 V AC) Three Phase 105.8 A (208 V AC) Three Phase 102 A (220 ... 240 V AC) Three Phase 92 A (440 ... 480 V AC) Three Phase 81 A (550 ... 600 V AC) Three Phase 93 A
Clasificación de uso general UL/CSA	(600 V AC) 20 A
Capacidad de conexión del circuito principal UL/CSA	Flexible 1/2x 16-8 AWG Stranded 1/2x 16-8 AWG
Par de apriete UL/CSA	Main Circuit 18 in-lb

Ambiente

Temperatura ambiente	Around the Enclosure 0 ... +40 °C Funcionamiento -25 ... +70 °C Operation Compensated -25 ... +55 °C Almacenamiento -50 ... +80 °C
Compensación de la temperatura del aire ambiente	Yes
Altitud máxima de funcionamiento permisible	2000 m
Resistencia a los golpes según IEC 60068-2-27	11 ms Pulse 25g
Resistencia a las vibraciones según IEC 60068-2-6	2g 5 ... 150 Hz

Material Compliance

Plantilla de notificación de minerales de conflicto (CMRT)	9AKK108467A5658
Declaración REACH	1SAA963005-4502
Información sobre RoHS	1SAA963006-4502
Estado de RoHS	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006539
WEEE B2C / B2B	Business To Business
Categoría RAEE	5. Small Equipment (No External Dimension More Than 50 cm)

Circular Value

Instrucciones para el final de la vida	1SAC200331H0001
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Certificados y Declaraciones (Número de Documento)

Certificado ABS	1SAA963000-0104
Certificado BV	1SAA963000-0204
Certificado CB	1SAA963005-2003 1SAA963006-2001

Certificado CQC	CQC2011010307506570 CQC2014010307744794
Característica de la corriente de corte	1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
Declaración de conformidad - CCC	2020980307003705 2020980307003043
Declaración de conformidad - CE	1SAD101100-3401
Declaración de conformidad - UKCA	1SAD201100-3401
Certificado DNV	1SAA963000-0304
Certificado DNV GL	1SAA963000-0304
Certificado EAC	1SAA963000-2701
Certificado GL	1SAA963000-0402
1ª Característica	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003
Certificado KC	1SAA963000-1501
Certificado LR	1SAA963000-0505
Certificado RMRS	1SAA918000-0704
Certificado UL	E137861-20001218

Información de Embalaje

Embalaje Nivel 1 Unidades	box 1 piece
Embalaje Nivel 1 Ancho	92 mm
Embalaje Nivel 1 Largo	102 mm
Embalaje Nivel 1 Alto	50 mm
Embalaje Nivel 1 Peso	0.325 kg
Embalaje Nivel 1 EAN	4013614405655
Embalaje Nivel 2 Unidades	carton 40 piece
Embalaje Nivel 2 Ancho	280 mm
Embalaje Nivel 2 Largo	395 mm
Embalaje Nivel 2 Alto	210 mm
Embalaje Nivel 2 Peso	13.386 kg
Nivel de paquete 2 EAN	4013614408731

Clasificaciones

Código de clasificación de objetos	F
ETIM 4	EC000074 - Motor protective circuit-breaker
ETIM 5	EC000074 - Motor protective circuit-breaker
ETIM 6	EC000074 - Motor protection circuit-breaker
ETIM 7	EC000074 - Motor protection circuit-breaker
ETIM 8	EC000074 - Motor protection circuit-breaker
Clase electrónica	V11.0 : 27370401
UNSPSC	39121521
Código de categoría granular de IDEA (IGCC)	4731 >> Manual Starters
Número E (Finlandia)	3705873
Número E (Suecia)	3111951

Accessories				
Identifier	Description	Type	Quantity	Unit Of Measure
1SAM201901R1001	HKF1-11 Aux.-contact for front mounting	HKF1-11	1	piece
1SAM201901R1201	HKF1-11K Aux.-contact for frontmounting with Push-In terminals	HKF1-11K	1	piece
1SAM201901R1002	HKF1-20 Aux.-contact 2NO, front mounting	HKF1-20	1	piece
1SAM201901R1202	HKF1-20K Aux.-contact for frontmounting with Push-In terminals	HKF1-20K	1	piece
1SAM201901R1004	HKF1-01 Aux.-contact for front mounting	HKF1-01	1	piece
1SAM201901R1003	HKF1-10 Aux.-contact for front mounting	HKF1-10	1	piece
1SAM201902R1002	HK1-20 Aux.-contact 2 NO	HK1-20	1	piece
1SAM201902R1202	HK1-20K Aux.-contact 2 NO with Push-In terminals	HK1-20K	1	piece
1SAM201902R1001	HK1-11 Aux.-contact 1 NO + 1 NC	HK1-11	1	piece
1SAM201902R1201	HK1-11K Aux.-contact 1 NO + 1 NC with Push-In terminals	HK1-11K	1	piece
1SAM201902R1003	HK1-02 Aux.-contact 2 NC	HK1-02	1	piece
1SAM201902R1203	HK1-02K Aux.-contact 2 NC with Push-In terminals	HK1-02K	1	piece
1SAM201902R1004	HK1-20L Aux.-cont. w. 2 lead contacts 2 NO	HK1-20L	1	piece
1SAM201902R1204	HK1-20LK Aux.-cont. w. 2 leading contacts 2 NO, with Push-In terminals	HK1-20LK	1	piece
1SAM201903R1002	SK1-20 Signaling Contact 2 NO	SK1-20	1	piece
1SAM201903R1202	SK1-20K Signaling Contact 2 NO with Push-In terminals	SK1-20K	1	piece
1SAM201903R1005	SK1-20AR Signaling Contact, 2NO with screw terminals	SK1-20AR	1	piece
1SAM201903R1205	SK1-20ARK Signaling Contact, 2NO with Push-in Spring terminals	SK1-20ARK	1	piece
1SAM201903R1001	SK1-11 Signaling Contact 1 NO + 1 NC	SK1-11	1	piece
1SAM201903R1201	SK1-11K Signaling Contact 1 NO + 1 NC with Push-In terminals	SK1-11K	1	piece
1SAM201903R1004	SK1-11AR Signaling Contact, 1NO+1NC with screw terminals	SK1-11AR	1	piece
1SAM201903R1204	SK1-11ARK Signaling Contact, 1NO+1NC with Push-in Spring terminals	SK1-11ARK	1	piece
1SAM201903R1003	SK1-02 Signaling Contact 2 NC	SK1-02	1	piece
1SAM201903R1203	SK1-02K Signaling Contact 2 NC with Push-In terminals	SK1-02K	1	piece
1SAM201903R1006	SK1-02AR Signaling Contact, 2NC with screw terminals	SK1-02AR	1	piece
1SAM201903R1206	SK1-02ARK Signaling Contact, 2NC with Push-in Spring terminals	SK1-02ARK	1	piece
1SAM201910R1001	AA1-24 Shunt Trip 20-24V	AA1-24	1	piece
1SAM201910R1002	AA1-110 Shunt Trip 110V	AA1-110	1	piece
1SAM201910R1003	AA1-230 Shunt Trip 200-240V	AA1-230	1	piece
1SAM201910R1004	AA1-400 Shunt Trip 350-415V	AA1-400	1	piece
1SAM201904R1010	UA1-20 Undervoltage release 20V 50Hz / 24V 60 Hz	UA1-20	1	piece
1SAM201904R1001	UA1-24 Undervoltage release 24 V	UA1-24	1	piece
1SAM201904R1002	UA1-48 Undervoltage release 48V	UA1-48	1	piece
1SAM201904R1003	UA1-60 Undervoltage release 60V	UA1-60	1	piece
1SAM201904R1004	UA1-110 Undervoltage release 110V 110V 50Hz/120V 60Hz	UA1-110	1	piece
1SAM201904R1008	UA1-208 Undervoltage release 208V 60Hz	UA1-208	1	piece

1SAM201904R1005	UA1-230 Undervoltage release 230 V 50 Hz / 240 V 60 Hz	UA1-230	1	piece
1SAM201904R1006	UA1-400 Undervoltage release 400V	UA1-400	1	piece
1SAM201904R1007	UA1-415 Undervoltage release 415V 415V 50Hz/480V 60Hz	UA1-415	1	piece
1SAM201904R1009	UA1-575 Undervoltage release 575V 60Hz	UA1-575	1	piece
1SAM201906R1102	PS1-2-0-65 3-phase busbar for 2 MS116 / MS132, le=65A	PS1-2-0-65	1	piece
1SAM201906R1112	PS1-2-1-65 3-phase busbar for 2 MS116 / MS132 with 1 HK/SK, le=65A	PS1-2-1-65	1	piece
1SAM201906R1122	PS1-2-2-65 3-phase busbar for 2 MS116 / MS132 with 2 HK/SK, le=65A	PS1-2-2-65	1	piece
1SAM201916R1103	PS1-3-0-100 3-phase busbar for 3 MS116 / MS132, le=100A	PS1-3-0-100	1	piece
1SAM201906R1103	PS1-3-0-65 3-phase busbar for 3 MS116 / MS132, le=65A	PS1-3-0-65	1	piece
1SAM201916R1113	PS1-3-1-100 3-phase busbar for 3 MS116 /MS132 with 1 HK/SK, le=100A	PS1-3-1-100	1	piece
1SAM201906R1113	PS1-3-1-65 3-phase busbar for 3 MS116 / MS132 with 1 HK/SK, le=65A	PS1-3-1-65	1	piece
1SAM201916R1123	PS1-3-2-100 3-phase busbar for 3 MS116 /MS132 with 2 HK/SK, le=100A	PS1-3-2-100	1	piece
1SAM201906R1123	PS1-3-2-65 3-phase busbar for 3 MS116 / MS132 with 2 HK/SK, le=65A	PS1-3-2-65	1	piece
1SAM201916R1104	PS1-4-0-100 3-phase busbar for 4 MS116 / MS132, le=100A	PS1-4-0-100	1	piece
1SAM201906R1104	PS1-4-0-65 3-phase busbar for 4 MS116 / MS132, le=65A	PS1-4-0-65	1	piece
1SAM201916R1114	PS1-4-1-100 3-phase busbar for 4 MS116 /MS132 with 1 HK/SK, le=100A	PS1-4-1-100	1	piece
1SAM201906R1114	PS1-4-1-65 3-phase busbar for 4 MS116 / MS132 with 1 HK/SK, le=65A	PS1-4-1-65	1	piece
1SAM201906R1124	PS1-4-2-65 3-phase busbar for 4 MS116 / MS132 with 2 HK/SK, le=65A	PS1-4-2-65	1	piece
1SAM201916R1105	PS1-5-0-100 3-phase busbar for 5 MS116 / MS132, le=100A	PS1-5-0-100	1	piece
1SAM201906R1105	PS1-5-0-65 3-phase busbar for 5 MS116 / MS132, le=65A	PS1-5-0-65	1	piece
1SAM201916R1115	PS1-5-1-100 3-phase busbar for 5 MS116 /MS132 with 1 HK/SK, le=100A	PS1-5-1-100	1	piece
1SAM201906R1115	PS1-5-1-65 3-phase busbar for 5 MS116 / MS132 with 1 HK/SK, le=65A	PS1-5-1-65	1	piece
1SAM201906R1125	PS1-5-2-65 3-phase busbar for 5 MS116 / MS132 with 2 HK/SK, le=65A	PS1-5-2-65	1	piece
1SAM201907R1101	S1-M1-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm ²	S1-M1-25	1	piece
1SAM201907R1102	S1-M2-25 3-phase power infeed block High, for MS116 / MS132, 25mm ²	S1-M2-25	1	piece
1SAM201907R1103	S1-M3-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm ² , Type E	S1-M3-25	1	piece
1SAM201913R1103	S1-M3-35 3-phase power infeed block Flat, for MS116 / MS132, 35mm ² , Type E	S1-M3-35	1	piece
1SAM201914R1002	S1-PB1-25 1-phase power infeed block for MS116 / MS132 / MS132-T, 25mm ² , IEC	S1-PB1-25	1	piece
1SAM201914R1001	PB1-1-32 phase connecting link for MS116 / MS132 / MS132-T, le=32A	PB1-1-32	1	piece
1SAM201908R1001	BS1-3 Protection Cover for busbars empty places	BS1-3	1	piece
1SAM201909R1001	FS116 Screw fixing kit for MS116, MS/MO132 10 pieces packed	FS116	1	piece
GJF1101903R0001	SA1 Dispositivo enclavamiento	SA1	1	piece

GJF1101903R0002	SA2 Dispositivo enclavamiento	SA2	1	piece
GJF1101903R0003	SA3 Terminals and Installation Material	SA3	1	piece
1SAM201911R1012	IB132-F Enclosure, GY/RD, IP65 3 times lockable	IB132-F	1	piece
1SAM201911R1010	IB132-G Enclosure, GY/BK, IP65 Standard version, 3 times lockable	IB132-G	1	piece
1SAM201911R1011	IB132-Y Enclosure, RD/YE, IP65 Emergency-STOP, 3 times lockable	IB132-Y	1	piece
1SAM201912R1010	DMS132-G Door Mounting Kit, GY/BK, IP65 Standard version, 3 times lockable	DMS132-G	1	piece
1SAM201912R1011	DMS132-Y Door Mounting Kit, RD/YE, IP65 Emergency-STOP, 3 times lockable	DMS132-Y	1	piece
1SAM201909R1021	MSAH1 Shaft Supporter suitable for MS116, MS132/MO132	MSAH1	1	piece
1SAM201920R1001	MSHD-LB Handle, IP64, black, 3 times lockable, defeatable, 0-I	MSHD-LB	1	piece
1SAM201920R1002	MSHD-LY Handle, IP64, red/yellow, 3 times lockable, defeatable, 0-I	MSHD-LY	1	piece
1SAM201920R1000	MSH-AR Shaft alignment ring suitable for MSHD and MSH handles	MSH-AR	1	piece
1SAM101923R0002	MSMN Driver w. screw for manual motor starters, 6x6	MSMN	1	piece
1SCA101655R1001	OXS6X130 SHAFT	OXS6X130	1	piece
1SAM101923R0012	MSMNO Driver w/o coding w. screw for manual motor starters, 6x6	MSMNO	1	piece
1SCA101659R1001	OXS6X180 SHAFT	OXS6X180	1	piece
1SCA101647R1001	OXS6X85 SHAFT	OXS6X85	1	piece
1SCA108043R1001	OXS6X105 SHAFT	OXS6X105	1	piece

Categorías

Productos y sistemas de baja tensión → Aparatos de control → Guardamotores → Guardamotores

Productos y sistemas de baja tensión → Interruptores automáticos → Guardamotores

