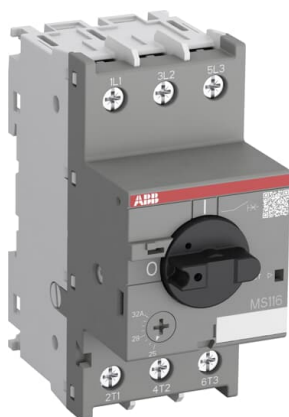


PRODUCT-DETAILS

# MS116-20

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



### Informations générales

Extension du type de produit	MS116-20
Code de produit	1SAM25000R1013
EAN	4013614405655
Description courte	MS116-20 Manual Motor Starter 16 ... 20 A

Description longue	<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 <math>I_e = 20.0</math> 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 <math>I_{cs} = 10</math> 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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### Commande

Quantité minimum	1 pièce
Code douanier	85362010

### Downloads Préférés

Fiche produit, informations techniques	2CDC131025D0201
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Instructions et manuels	2CDC131011M6802
Instructions et manuels (Partie 2)	2CDC131060M0202
Time-Current Characteristic Curve	1SAM200505F0013
I <sup>t</sup> Characteristic	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003
Cut-off Current Characteristic	1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
CAD Dimensional Drawing	2CDC001079B0201
Schéma dimensionnel	1SAM200420F0001

## Dimensions

Produit Largeur Net	45 mm
Produit Hauteur Net	97.8 mm
Produit Longueur Net	85.4 mm
Poids net	0.31 kg

## Technique

Pouvoir assigné de coupure de service en court-circuit ( $I_{CS}$ )	(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
Pouvoir assigné de coupure ultime en court- circuit ( $I_{CU}$ )	(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
Courant assigné instantané de réglage de court-circuit ( $I_i$ )	300 A
Setting Range	16 ... 20 A
Puissance assignée d'emploi AC-3 ( $P_e$ )	(400 V) Three Phase 7.5 kW
Puissance assignée d'emploi AC-3e ( $P_e$ )	(400 V) Three Phase 7.5 kW
Tension	Circuit principal 690 V AC
Courant nominal de fonctionnement ( $I_e$ )	20 A
Courant assignée d'emploi AC-3 ( $I_e$ )	20 A
Courant assignée d'emploi AC-3e ( $I_e$ )	20 A
Fréquence assignée (f)	Circuit principal 50 Hz Circuit principal 60 Hz
Tension assignée de tenue aux chocs ( $U_{imp}$ )	Circuit principal 6 kV
Tension assignée d'isolement ( $U_i$ )	690 V
Power Loss	at Rated Operating Conditions per Pole 1.5 ... 2.3 W
Nombre de pôles	3
Courant thermique conventionnel à l'air libre ( $I_{th}$ )	Main Circuit 20 A

Indice de protection	Housing IP20 Main Circuit Terminals IP10
Degré de pollution	3
Electrical Durability	50000 cycle
Durabilite mecanique	100000 cycle
Type de borne	Screw Terminals
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible 1/2x 1 ... 2.5 mm <sup>2</sup> Flexible 1/2x 2.5 ... 6 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid 1/2x 2.5 ... 6 mm <sup>2</sup>
Couple de serrage	Main Circuit 2 N-m
Wire Stripping Length	Main Circuit 10 mm
Recommended Screw Driver	Pozidriv 2
Type d'encastrement	1 ... 6
Montage sur rail DIN	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
Minimum Mounting Distance	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
Actuator Type	Rotary Handle
Contact Position Indication	ON / OFF
Normes et standards	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1

## Technique UL/CSA

Short-Circuit Current Rating (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
Maximum Operating Voltage UL/CSA	Circuit principal 600 V AC
Puissance nominale 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
Full Load Amps Motor Use	(200 V AC) Three Phase 17.5 A (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
Locked Rotor Amps	(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
General Use Rating UL/CSA	(600 V AC) 20 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-8 AWG Stranded 1/2x 16-8 AWG
Tightening Torque UL/CSA	Main Circuit 18 in-lb

## Environnement

Température de l'air ambiant	Around the Enclosure 0 ... +40 °C Operation -25 ... +70 °C Operation Compensated -25 ... +55 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation	Oui
Altitude de fonctionnement maximale autorisée	2000 m
REACH Declaration	1SAA963005-4502
Résistance aux chocs selon CEI 60068-2-27	11 ms Pulse 25g
Resistance to Vibrations acc. to IEC 60068-2-6	2g / 5 ... 150 Hz
Informations RoHS	1SAA963006-4502
Statut RoHS	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

### Certificats et Déclarations (Numéro de document)

Certificat ABS	1SAA963000-0104
Certificat BV	1SAA963000-0204
CB Certificate	1SAA963005-2003 1SAA963006-2001
CQC Certificate	CQC2011010307506570 CQC2014010307744794
Cut-off Current Characteristic	1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
Declaration of Conformity - CCC	2020980307003705 2020980307003043
Déclaration de Conformité - CE	1SAD101100-3401
Declaration of Conformity - UKCA	1SAD201100-3401
Certificat DNV	1SAA963000-0304
DNV GL Certificate	1SAA963000-0304
EAC Certificate	1SAA963000-2701
Certificat GL	1SAA963000-0402
I <sup>pt</sup> Characteristic	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003
KC Certificate	1SAA963000-1501
Certificat LR	1SAA963000-0505
Certificat RMRS	1SAA918000-0704
Certificat UL	E137861-20001218

### Emballage

Emballage Niveau 1 Unités	box 1 pièce
Emballage Niveau 1 Largeur	92 mm
Emballage Niveau 1 Longueur	102 mm
Emballage Niveau 1 Hauteur	50 mm
Emballage Niveau 1 Poids	0.325 kg
Emballage Niveau 1 EAN	4013614405655

Emballage Niveau 2 Unités	carton 40 pièce
Emballage Niveau 2 Largeur	280 mm
Emballage Niveau 2 Longueur	395 mm
Emballage Niveau 2 Hauteur	210 mm
Emballage Niveau 2 Poids	13.386 kg
Emballage Niveau 2 EAN	4013614408731

## Classifications

Code de classification d'objet	F
ETIM 4	EC000074 - Motor protective circuit-breaker
ETIM 5	EC000074 - Motor protective circuit-breaker
ETIM 6	EC000074 - disjoncteur/démarrreur de moteur
ETIM 7	EC000074 - Motor protection circuit-breaker
ETIM 8	EC000074 - Motor protection circuit-breaker
eClass	V11.0 : 27370401
UNSPSC	39121521
Code de catégorie granulaire IDEA (IGCC)	4731 >> Manual Starters
E-Number (Finland)	3705873
E-Number (Sweden)	3111951

## Accessories

Identifiant	Description	Type	Quantity	Unit Of Measure
1SAM201901R1001	HKF1-11 Auxiliary Contact	HKF1-11	1	piece
1SAM201901R1201	HKF1-11K Auxiliary Contact	HKF1-11K	1	piece
1SAM201901R1002	HKF1-20 Auxiliary Contact	HKF1-20	1	piece
1SAM201901R1202	HKF1-20K Auxiliary Contact	HKF1-20K	1	piece
1SAM201901R1004	HKF1-01 Auxiliary Contact	HKF1-01	1	piece
1SAM201901R1003	HKF1-10 Auxiliary Contact	HKF1-10	1	piece
1SAM201902R1002	HK1-20 Auxiliary Contact	HK1-20	1	piece
1SAM201902R1202	HK1-20K Auxiliary Contact	HK1-20K	1	piece
1SAM201902R1001	HK1-11 Auxiliary Contact	HK1-11	1	piece
1SAM201902R1201	HK1-11K Auxiliary Contact	HK1-11K	1	piece
1SAM201902R1003	HK1-02 Auxiliary Contact	HK1-02	1	piece
1SAM201902R1203	HK1-02K Auxiliary Contact	HK1-02K	1	piece
1SAM201902R1004	HK1-20L Auxiliary Contact	HK1-20L	1	piece
1SAM201902R1204	HK1-20LK Auxiliary Contact	HK1-20LK	1	piece
1SAM201903R1002	SK1-20 Signaling Contact	SK1-20	1	piece
1SAM201903R1202	SK1-20K Signaling Contact	SK1-20K	1	piece
1SAM201903R1005	SK1-20AR Signaling Contact	SK1-20AR	1	piece
1SAM201903R1205	SK1-20ARK Signaling Contact	SK1-20ARK	1	piece
1SAM201903R1001	SK1-11 Signaling Contact	SK1-11	1	piece
1SAM201903R1201	SK1-11K Signaling Contact	SK1-11K	1	piece
1SAM201903R1004	SK1-11AR Signaling Contact	SK1-11AR	1	piece
1SAM201903R1204	SK1-11ARK Signaling Contact	SK1-11ARK	1	piece

1SAM201903R1003	SK1-02 Signaling Contact	SK1-02	1	piece
1SAM201903R1203	SK1-02K Signaling Contact	SK1-02K	1	piece
1SAM201903R1006	SK1-02AR Signaling Contact	SK1-02AR	1	piece
1SAM201903R1206	SK1-02ARK Signaling Contact	SK1-02ARK	1	piece
1SAM201910R1001	AA1-24 Shunt Trip	AA1-24	1	piece
1SAM201910R1002	AA1-110 Shunt Trip	AA1-110	1	piece
1SAM201910R1003	AA1-230 Shunt Trip	AA1-230	1	piece
1SAM201910R1004	AA1-400 Shunt Trip	AA1-400	1	piece
1SAM201904R1010	UA1-20 Undervoltage Release	UA1-20	1	piece
1SAM201904R1001	UA1-24 Undervoltage Release	UA1-24	1	piece
1SAM201904R1002	UA1-48 Undervoltage Release	UA1-48	1	piece
1SAM201904R1003	UA1-60 Undervoltage Release	UA1-60	1	piece
1SAM201904R1004	UA1-110 Undervoltage Release	UA1-110	1	piece
1SAM201904R1008	UA1-208 Undervoltage Release	UA1-208	1	piece
1SAM201904R1005	UA1-230 Undervoltage Release	UA1-230	1	piece
1SAM201904R1006	UA1-400 Undervoltage Release	UA1-400	1	piece
1SAM201904R1007	UA1-415 Undervoltage Release	UA1-415	1	piece
1SAM201904R1009	UA1-575 Undervoltage Release	UA1-575	1	piece
1SAM201906R1102	PS1-2-0-65 Busbar	PS1-2-0-65	1	piece
1SAM201906R1112	PS1-2-1-65 Busbar	PS1-2-1-65	1	piece
1SAM201906R1122	PS1-2-2-65 Busbar	PS1-2-2-65	1	piece
1SAM201916R1103	PS1-3-0-100 Busbar	PS1-3-0-100	1	piece
1SAM201906R1103	PS1-3-0-65 Busbar	PS1-3-0-65	1	piece
1SAM201916R1113	PS1-3-1-100 Busbar	PS1-3-1-100	1	piece
1SAM201906R1113	PS1-3-1-65 Busbar	PS1-3-1-65	1	piece
1SAM201916R1123	PS1-3-2-100 Busbar	PS1-3-2-100	1	piece
1SAM201906R1123	PS1-3-2-65 Busbar	PS1-3-2-65	1	piece
1SAM201916R1104	PS1-4-0-100 Busbar	PS1-4-0-100	1	piece
1SAM201906R1104	PS1-4-0-65 Busbar	PS1-4-0-65	1	piece
1SAM201916R1114	PS1-4-1-100 Busbar	PS1-4-1-100	1	piece
1SAM201906R1114	PS1-4-1-65 Busbar	PS1-4-1-65	1	piece
1SAM201906R1124	PS1-4-2-65 Busbar	PS1-4-2-65	1	piece
1SAM201916R1105	PS1-5-0-100 Busbar	PS1-5-0-100	1	piece
1SAM201906R1105	PS1-5-0-65 Busbar	PS1-5-0-65	1	piece
1SAM201916R1115	PS1-5-1-100 Busbar	PS1-5-1-100	1	piece
1SAM201906R1115	PS1-5-1-65 Busbar	PS1-5-1-65	1	piece
1SAM201906R1125	PS1-5-2-65 Busbar	PS1-5-2-65	1	piece
1SAM201907R1101	S1-M1-25 Power Infeed Block	S1-M1-25	1	piece
1SAM201907R1102	S1-M2-25 Power Infeed Block	S1-M2-25	1	piece
1SAM201907R1103	S1-M3-25 Power Infeed Block	S1-M3-25	1	piece
1SAM201913R1103	S1-M3-35 Power Infeed Block	S1-M3-35	1	piece
1SAM201914R1002	S1-PB1-25 Power Infeed Block	S1-PB1-25	1	piece
1SAM201914R1001	PB1-1-32 Connecting Link	PB1-1-32	1	piece
1SAM201908R1001	BS1-3 Protection Cover	BS1-3	1	piece
1SAM201909R1001	FS116 Screw Fixing Kit	FS116	1	piece
GJF1101903R0001	SA1 Terminals and Installation Material	SA1	1	piece
GJF1101903R0002	SA2 Terminals and Installation Material	SA2	1	piece
GJF1101903R0003	SA3 Terminals and Installation Material	SA3	1	piece
1SAM201911R1012	IB132-F Enclosure	IB132-F	1	piece
1SAM201911R1010	IB132-G Enclosure	IB132-G	1	piece
1SAM201911R1011	IB132-Y Enclosure	IB132-Y	1	piece

1SAM201912R1010	DMS132-G Door Mounting Kit	DMS132-G	1	piece
1SAM201912R1011	DMS132-Y Door Mounting Kit	DMS132-Y	1	piece
1SAM201909R1021	MSAH1 Shaft Supporter	MSAH1	1	piece
1SAM201920R1001	MSHD-LB Handles	MSHD-LB	1	piece
1SAM201920R1002	MSHD-LY Handles	MSHD-LY	1	piece
1SAM201920R1000	MSH-AR Shaft Alignment Ring	MSH-AR	1	piece
1SAM101923R0002	MSMN Driver	MSMN	1	piece
1SCA101655R1001	OXS6X130 SHAFT	OXS6X130	1	piece
1SAM101923R0012	MSMNO Driver	MSMNO	1	piece
1SCA101659R1001	OXS6X180 SHAFT	OXS6X180	1	piece
1SCA101647R1001	OXS6X85 SHAFT	OXS6X85	1	piece
1SCA108043R1001	OXS6X105 SHAFT	OXS6X105	1	piece

## Catégories

Produits basse tension → Disjoncteurs de puissance → Disjoncteurs-moteurs

Produits basse tension → Produits de Contrôle, Protection et sécurité machines → Disjoncteurs-moteurs → Disjoncteurs-moteurs

