## **SIEMENS**

Data sheet 3RM1201-1AA04



Reversing starter, 3RM1, 500 V, 0 - 0.12 kW, 0.1 - 0.5 A, 24 V DC, screw terminals

product designation Reversing starter design of the product product type designation 3RM1 General technical data equipment version according to IEC 60947-4-2 3 product function Reversing starter eintrinsic device protection Yes of product supply reverse polarity protection No suitability for operation device connector 3ZY12 Yes power loss [W] for rated value of the current et AC in hot operating state per pole 0,01 W ewithout load current share typical 1.88 W insulation voltage rated value 500 V overvoltage cated value 6k KV maximum permissible voltage for protective separation ebetween main and auxiliary circuit 500 V ebetween control and auxiliary circuit 250 V shock resistance 6g / 11 ms diviation resistance 9	product brand name	SIRIUS
product designation Reversing starter with electronic overload protection product yet designation 3RM1  General tochnical data equipment version according to IEC 69947-4-2 3  product function Reversing starter • intrinsic device protection Yes Sultability for operation device connector 3ZY12 Yes power loss [W] for rated value of the current • at AC in hot operating state per pole 0.01 W	<u>'</u>	
design of the product type designation         with electronic overload protection           General technical data         Fooduct function           equipment version according to IEC 69947-4-2         3           product function         Reversing starter           • intrinsic device protection         Yes           • for power supply reverse polarity protection         No           suitability for operation device connector 32Y12         Yes           power loss [W] for rated value of the current         - at AC in hot operating state per pole         0.01 W           • without load current share typical         1.88 W           insulation voltage rated value         500 V           voervoltage category         III           surge voltage resistance rated value         6 kV           maximum permissible voltage for protective separation         500 V           • between control and suxiliary circuit         500 V           • between main and auxiliary circuit         500 V           • botween control and suxiliary circuit         500 V           • shock resistance         6g /11 ms           • Without		
Product type designation   SRM1		Š
equipment version according to IEC 60947-4-2  aquipment version according to IEC 60947-4-2  product function  intrinsic device protection  for power supply reverse polarity protection  suitability for operation device connector 3ZY12  yes  power loss [W] for rated value of the current  at AC in hot operating state per pole  without load current share typical  insulation voltage rated value  overvoltage rated value  obetween main and auxiliary circuit  between main and auxiliary circuit  between control and auxiliary circuit  fold for the stance  operating frequency maximum  11/s  reference code according to IEC 81346-2  Quustance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1  Lead - 7439-92-1  Lead monoxide (lead oxide) - 1317-36-8  2.2.(6.6-leaterborno-4.4-lisopropylidenediphenol - 79-94-7  2-methyl-1-(4-methythophernyl-2-morpholinopopan-1-one - 71868-10-5  6.6-di-tert-butyl-2-2-methylenedi-p-cresol - 119-47-1  Weight  reverse starting  orduct function  olirect start  vereverse starting  reverse starting  reverse starting  reverse starting  reproduct function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  class A  EMC immunity according to IEC 61000-4-4  3 kV/ 5 kHz		
equipment version according to IEC 60947-4-2 product function  intrinsic device protection  for power supply reverse polarity protection  No suitability for operation device connector 3ZY12 yes  power loss [W] for rated value of the current  at AC in hot operating state per pole  without load current share typical  insulation voltage rated value  overvoltage category  III  surge voltage resistance rated value  between main and auxiliary circuit  between routroil and auxiliary circuit  between routroil and auxiliary circuit  between routroil and auxiliary circuit  coperating frequency maximum  1 1/s  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  SVHC substance name  Lead - 7433-92-1  Lead monoxide (lead oxide) - 1317-36-8 2,2,6,6-tertarborno-4,4-isopropolinopropan-1-one - 71868-10-5 6,6-d-tert-butyl-2,2-methylenedi-p-cresol - 119-47-1  Weight  product function  direct start reverse starting reverse starting reverse starting reverse starting routcut function short circuit protection  No  Fluctromagnetic compatibility  EMC emitted interference according to IEC 60947-1  class A  EMC immunity according to IEC 60947-1  class Leu but staccording to IEC 60947-1  class Leu but staccording to IEC 60947-1  conducted interference due to burst according to IEC 61000-4-4  3 kV / 5 kHz		ONWI
product function intrinsic device protection intrinsic device protection for power supply reverse polarity protection  sultability for operation device connector 3ZY12  power loss [W] for rated value of the current at AC in hot operating state per pole without load current share typical insulation voltage rated value  overvoltage category  ill surge voltage resistance rated value  obetween main and auxiliary circuit between main and auxiliary circuit between control and auxiliary circuit between control and auxiliary circuit  insulation resistance  operating frequency maximum  1 1/8  reference code according to IEC 81346-2  Substance Prohibitance (Date)  SYHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead monoxide (lead		3
intrinsic device protection for power supply reverse polarity protection Suitability for operation device connector 3ZY12 Yes  power loss fWJ for rated value of the current at AC in hot operating state per pole without load current share typical insulation voltage rated value overvoltage category Ill surge voltage resistance rated value between main and auxiliary circuit between main and auxiliary circuit between control and auxiliary circuit between control and auxiliary circuit shock resistance vibration		
of power supply reverse polarity protection     suitability for operation device connector 3ZY12     yes  power loss [W] for rated value of the current	•	
suitability for operation device connector 3ZY12  power loss [W] for rated value of the current	·	
power loss [W] for rated value of the current  • at AC in hot operating state per pole • without load current share typical  insulation voltage rated value  overvoltage category  ill  surge voltage resistance rated value  • between main and auxiliary circuit • between control and auxil		
at AC in hot operating state per pole  without load current share typical  insulation voltage rated value  500 V  overvoltage category  III  surge voltage resistance rated value  6 kV  maximum permissible voltage for protective separation  • between main and auxiliary circuit  • between control and auxiliary circuit  • for insulation voltage resistance  6g / 11 ms  vibration resistance  1 1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2°,6,6°-teltrabromo-4,4°-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophendendiphenol - 79-94		103
without load current share typical     insulation voltage rated value     overvoltage category     Ill surge voltage resistance rated value     aximum permissible voltage for protective separation     • between main and auxiliary circuit     • between control and auxiliary circuit		0.01 W
insulation voltage rated value  overvoltage category  surge voltage resistance rated value  between main and auxiliary circuit between control and auxiliary circiit between control and auxiliary circiit between control and		
overvoltage category  surge voltage resistance rated value  between main and auxiliary circuit  between main and auxiliary circuit  between control and auxiliary circuit  shock resistance  ibration resistance  1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2', 6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  0 .304 kg  product function  circct start  reverse starting  product function short circuit protection  EMC emitted interference according to IEC 60947-1  EMC emitted interference according to IEC 60947-1  Class A  Conducted interference  due to burst according to IEC 61000-4-4  3 kV / 5 kHz	• • •	
surge voltage resistance rated value  maximum permissible voltage for protective separation  • between main and auxiliary circuit  • between control and auxiliary circuit  shock resistance  6g / 11 ms  vibration resistance  1 6 Hz, 15 mm; 20 m/s², 500 Hz  perating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tetr-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  product function  • direct start  • reverse starting  product function short circuit protection  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  Class A  Conducted interference  • due to burst according to IEC 61000-4-4  3 kV / 5 kHz		
maximum permissible voltage for protective separation  • between main and auxiliary circuit  • between control and auxiliary circuit  500 V  shock resistance  6g / 11 ms  vibration resistance  1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  3/01/2017  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2.6,6"-tetrabromo-4,4"-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methyl-neryl-)-2-morpholinopropan-1-one - 71868-10-5 6,6"-di-tert-butyl-2,2"-methylenedi-p-cresol - 119-47-1  Weight  product function  • direct start • reverse starting  product function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  class A  conducted interference • due to burst according to IEC 61000-4-4  3 kV / 5 kHz		
between main and auxiliary circuit     between control and auxiliary circuit     250 V  shock resistance     6g / 11 ms  vibration resistance     1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum     1 1/s  reference code according to IEC 81346-2     Q  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2°, 6,6°-tetrabromo-4,4°-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methyl-1-p-cresol - 119-47-1)  Weight     0,304 kg  product function     • direct start     • reverse starting  product function short circuit protection  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  Class A  conducted interference     • due to burst according to IEC 61000-4-4  Source Alexandra Source     1 ms     250 V  1 ms  1 ms  2 500 W  1 ms  1 ms  2 ms, 20 m/s², 500 Hz  1 ms  1 ms  1 ms  2 ms, 300 Hz  1 ms  1 m		UKV
between control and auxiliary circuit  shock resistance  6g / 11 ms  vibration resistance  1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  SVHC substance name  Lead - 7433-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2*6,6*-tetrabromo-4,4*-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6*-di-tert-butyl-2,2*-methylenedi-p-cresol - 119-47-1  Weight  product function  olirect start reverse starting reverse starting reverse starting reverse starting reverse starting reverse more		500 V
shock resistance vibration resistance vibration resistance 1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum 1 1/s  reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 03/01/2017  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2,6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  product function olirect start reverse starting yes  product function short circuit protection No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1 Class A  conducted interference olue to burst according to IEC 61000-4-4 3 kV / 5 kHz	•	
vibration resistance  1 6 Hz, 15 mm; 20 m/s², 500 Hz  operating frequency maximum  1 1/s  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2,6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2,-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  0.304 kg  product function	<u> </u>	
perating frequency maximum  reference code according to IEC 81346-2  Q Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  0.304 kg  product function edirect start No reverse starting Yes  product function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  Class A  conducted interference edue to burst according to IEC 61000-4-4  3 kV / 5 kHz		
reference code according to IEC 81346-2  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  product function		
Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  product function  • direct start  • reverse starting  product function short circuit protection  No  Plectromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Class A  conducted interference  • due to burst according to IEC 61000-4-4  3 kV / 5 kHz		
SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  0.304 kg  product function  • direct start  • reverse starting  Yes  product function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Class A  conducted interference  • due to burst according to IEC 61000-4-4  3 kV / 5 kHz	-	
Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1  Weight  0.304 kg  product function	` '	
product function  • direct start  • reverse starting  Product function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  Class A  Conducted interference  • due to burst according to IEC 61000-4-4  3 kV / 5 kHz	SVIIC Substance name	Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
• direct start     • reverse starting     Yes  product function short circuit protection     No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1     Class A  EMC immunity according to IEC 60947-1     Class A  conducted interference     • due to burst according to IEC 61000-4-4     3 kV / 5 kHz	Weight	0.304 kg
reverse starting     Product function short circuit protection     No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1	product function	
product function short circuit protection  No  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1 class A  EMC immunity according to IEC 60947-1 Class A  conducted interference  • due to burst according to IEC 61000-4-4 3 kV / 5 kHz	direct start	No
Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1 class A  EMC immunity according to IEC 60947-1 Class A  conducted interference  • due to burst according to IEC 61000-4-4 3 kV / 5 kHz	reverse starting	Yes
EMC emitted interference according to IEC 60947-1 class A  EMC immunity according to IEC 60947-1 Class A  conducted interference  • due to burst according to IEC 61000-4-4 3 kV / 5 kHz	product function short circuit protection	No
EMC immunity according to IEC 60947-1  Class A  conducted interference  • due to burst according to IEC 61000-4-4  3 kV / 5 kHz	Electromagnetic compatibility	
conducted interference  ● due to burst according to IEC 61000-4-4  3 kV / 5 kHz	EMC emitted interference according to IEC 60947-1	class A
due to burst according to IEC 61000-4-4     3 kV / 5 kHz	EMC immunity according to IEC 60947-1	Class A
	conducted interference	
• due to conductor-earth surge according to IEC 61000-4-5 2 kV	<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	3 kV / 5 kHz
	• due to conductor-earth surge according to IEC 61000-4-5	2 kV

<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV
due to high-frequency radiation according to IEC 61000-	10 V
4-6 field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
conducted HF interference emissions according to CISPR11	Class B for the domestic, business and commercial environments
field-bound HF interference emission according to CISPR11	Class B for the domestic, business and commercial environments
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
Main circuit	
number of poles for main current circuit	3
design of the switching contact	Hybrid
design of the switching contact as NO contact for signaling function	OUT, electronic, 24 V DC, 15 mA
adjustable current response value current of the current- dependent overload release	0.1 0.5 A
minimum load [%]	20 %; from set rated current
type of the motor protection	solid-state
operating voltage rated value	48 500 V
relative symmetrical tolerance of the operating voltage	10 %
operating frequency 1 rated value	50 Hz
operating frequency 2 rated value	60 Hz
relative symmetrical tolerance of the operating frequency	10 %
operational current	
<ul> <li>at AC at 400 V rated value</li> </ul>	0.5 A
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	0.5 A
<ul> <li>at AC-53a at 400 V at ambient temperature 40 °C rated value</li> </ul>	0.5 A
ampacity when starting maximum	4 A
operating power for 3-phase motors at 400 V at 50 Hz	0 0.12 kW
Inputs/ Outputs	
Inputs/ Outputs input voltage at digital input at DC rated value	24 V
Inputs/ Outputs input voltage at digital input at DC rated value input current at digital input	24 V
Inputs/ Outputs input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC	24 V 11 mA
Inputs/ Outputs input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC  • with signal <0> at DC	24 V 11 mA 1 mA
Inputs/ Outputs input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts	24 V  11 mA 1 mA 1
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum	24 V  11 mA 1 mA 1 3 A
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum	24 V  11 mA 1 mA 1
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control	24 V  11 mA 1 mA 1 3 A
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage	24 V  11 mA 1 mA 1 3 A 1 A
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value	24 V  11 mA 1 mA 1 3 A 1 A  DC 19.2 30 V
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC	24 V  11 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 %
inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC	24 V  11 mA 1 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 %
input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value	24 V  11 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 %
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC	24 V  11 mA 1 mA 1 mA 1 A  1 A  DC 19.2 30 V 20 % 25 % 24 V
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  • initial value	24 V  11 mA 1 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 % 25 % 24 V
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value	24 V  11 mA 1 mA 1 mA 1 A  1 A  DC 19.2 30 V 20 % 25 % 24 V
Inputs/ Outputs  input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  control current at DC	24 V  11 mA 1 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 % 25 % 24 V  0.8 1.25
input voltage at digital input at DC rated value  input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  control current at DC  • in standby mode of operation	24 V  11 mA 1 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 % 25 % 24 V  0.8 1.25
input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at DC rated value relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value operating range factor control supply voltage rated value at DC  • initial value • full-scale value  control current at DC  • in standby mode of operation • during operation	24 V  11 mA 1 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 % 25 % 24 V  0.8 1.25
input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at DC rated value relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value operating range factor control supply voltage rated value at DC  • initial value • full-scale value  control current at DC  • in standby mode of operation • during operation inrush current peak	24 V  11 mA 1 mA 1 3 A 1 A  DC 19.2 30 V 20 % 25 % 24 V  0.8 1.25 25 mA 70 mA
Inputs / Outputs  input voltage at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  control current at DC  • in standby mode of operation  • during operation  inrush current peak  • at 24 V	24 V  11 mA  1 mA  1  3 A  1 A  DC  19.2 30 V  20 %  25 %  24 V  0.8  1.25  25 mA  70 mA  0.28 A; values at 25 °C
input voltage at digital input  input current at digital input  of r signal <1> at DC  with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  initial value  full-scale value  control current at DC  in standby mode of operation  during operation  inrush current peak  at 24 V  at DC at 24 V	24 V  11 mA  1 mA  1  3 A  1 A  DC  19.2 30 V  20 %  25 %  24 V  0.8  1.25  25 mA  70 mA  0.28 A; values at 25 °C 300 mA
input voltage at digital input at DC rated value input current at digital input  • for signal <1> at DC  • with signal <0> at DC  number of CO contacts for auxiliary contacts operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at DC rated value relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value operating range factor control supply voltage rated value at DC  • initial value • full-scale value  control current at DC  • in standby mode of operation • during operation  inrush current peak • at 24 V  • at DC at 24 V at switching on of motor	24 V  11 mA  1 mA  1  3 A  1 A  DC  19.2 30 V  20 %  25 %  24 V  0.8  1.25  25 mA  70 mA  0.28 A; values at 25 °C
input voltage at digital input  input current at digital input  of r signal <1> at DC  with signal <0> at DC  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15 at 230 V maximum  operational current of auxiliary contacts at DC-13 at 24 V maximum  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at DC rated value  relative negative tolerance of the control supply voltage at DC  relative positive tolerance of the control supply voltage at DC  control supply voltage 1 at DC rated value  operating range factor control supply voltage rated value at DC  initial value  full-scale value  control current at DC  in standby mode of operation  during operation  inrush current peak  at 24 V  at DC at 24 V	24 V  11 mA  1 mA  1  3 A  1 A  DC  19.2 30 V  20 %  25 %  24 V  0.8  1.25  25 mA  70 mA  0.28 A; values at 25 °C 300 mA

• at DC at 24 V	80 ms
at DC at 24 V at switching on of motor	80 ms
power loss [W] in auxiliary and control circuit	
in switching state OFF	
— with bypass circuit	0.6 W
in switching state ON	
— with bypass circuit	1.68 W
Response times	
ON-delay time	60 90 ms
OFF-delay time	60 90 ms
Power Electronics	
operational current	
<ul> <li>at 40 °C rated value</li> </ul>	0.5 A
at 50 °C rated value	0.5 A
• at 55 °C rated value	0.5 A
at 60 °C rated value	0.5 A
Installation/ mounting/ dimensions	
mounting position	vertical, horizontal, standing (observe derating)
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	22.5 mm
depth	141.6 mm
required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	50 mm
— at the side	3.5 mm
— downwards	50 mm
Ambient conditions	
installation altitude at height above sea level maximum	4 000 m; For derating see manual
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
<ul> <li>during storage</li> </ul>	-40 +70 °C
during transport	-40 +70 °C
environmental category during operation according to IEC 60721	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
relative humidity during operation	10 95 %
air pressure according to SN 31205	900 1 060 hPa
Communication/ Protocol	
protocol is supported	
<ul> <li>PROFINET IO protocol</li> </ul>	No
PROFIsafe protocol	No
product function bus communication	No
protocol is supported AS-Interface protocol	No
Connections/ Terminals	
type of electrical connection	screw-type terminals for main circuit, screw-type terminals for control circuit
• for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
wire length for motor unshielded maximum	100 m
type of connectable conductor cross-sections for main contacts	
• solid	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0,5 4 mm²), 2x (0,5 1,5 mm²)
connectable conductor cross-section for main contacts	
solid or stranded	0.5 4 mm²

finely stranded with core end processing	0.5 4 mm²	
connectable conductor cross-section for auxiliary contacts		
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²	
type of connectable conductor cross-sections		
<ul> <li>for auxiliary contacts</li> </ul>		
— solid	1x (0,5 2,5 mm²), 2x (1,0 1,5 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1 mm²)	
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	1x (20 14), 2x (18 16)	
AWG number as coded connectable conductor cross section		
<ul> <li>for main contacts</li> </ul>	20 12	
<ul> <li>for auxiliary contacts</li> </ul>	20 14	
UL/CSA ratings		
operational current at AC at 480 V according to UL 508	0.5 A	
Approvals Certificates		

**General Product Approval** 

EMV













**Test Certificates** 

other

Railway

Environment

Type Test Certificates/Test Report



Confirmation

Special Test Certificate Environmental Confirmations

## Further informatior

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RM1201-1AA04

Cax online generator

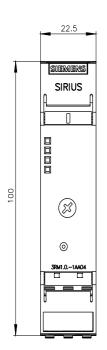
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RM1201-1AA04

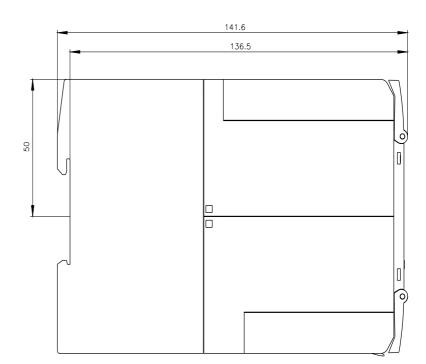
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

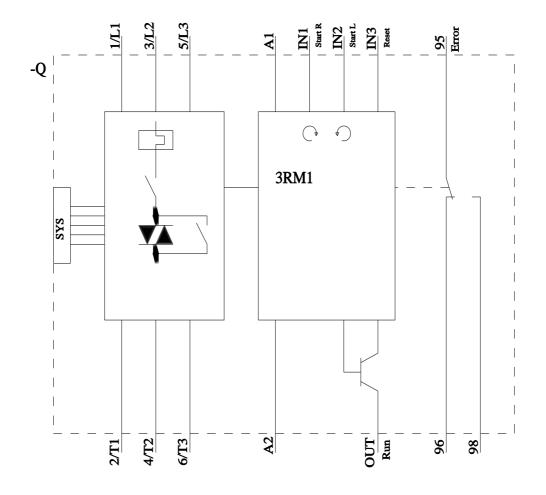
https://support.industry.siemens.com/cs/ww/en/ps/3RM1201-1AA04

 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

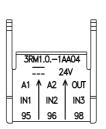
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RM1201-1AA04&lang=en

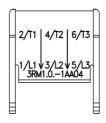












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