## **SIEMENS**

Data sheet 3RA6120-2BP33



SIRIUS Compact load feeder DOL starter 690 V 110...240 V AC/DC 50...60 Hz 0.32...1.25 A IP20 Connection main circuit: plug-in, without terminals Connection auxiliary circuit: Spring-type terminal

product designation design of the product product type designation  General technical data product function control circuit interface to parallel wiring product extension auxiliary witch Pres 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 degree of pollution 3 surge voltage resistance rated value • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between current of protection NEMA rating shock resistance without nesistance mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical • of the signaling contacts typical • of auxiliary contacts typical • of the signaling contact typical • of the signaling con	product brand name	SIRIUS
product type designation  General technical data product function control circuit interface to parallel wiring product extension auxiliary switch Yes power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical insulation voltage rated value  • degree of poliution  surge voltage resistance rated value • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • both wear control on NEMA rating • shock resistance  vibration resistance • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes  vibration resistance  • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes  vibration resistance  • a ft — 5.8 Hz, d= 15 mm, f= 5.8 500 Hz, a= 20 m/s², 10 cycles  • of the main contacts typical • of auxiliary contacts typical • of the sipaling contacts typical • of auxiliary contacts typical • of the sipaling contact typical	product designation	compact starter
Product function control circuit interface to parallel wiring	design of the product	direct starter
product function control circuit interface to parallel wiring product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current sharet vpical • without load current sharet vpical • without load current sharet vpical • go V  degree of pollution • between facility or created value • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • of there are control and auxiliary circuit • of the resistance • affective in the signaling contacts typical • of the main contacts typical • of the signaling contacts typical • at AC-15 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical  200 000  type of assignment continous operation according to IEC 60947-6-2  Verference code according to IEC 81346-2 Q Substance Prohibitance (Date)  5070/2012  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature • during operation • during storage  - 55 +80 °C	product type designation	3RA61
product extension auxiliary switch power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • without load current share typical • george pollution  surge voltage rated value • george of pollution • between main and auxiliary circuit • between main and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between for the main and experiment of the signaling contacts typical • at DC-13 at 6 A at 24 V typical • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical •	General technical data	
power loss [W] for rated value of the current  at AC in hot operating state 0.1 W  at AC in hot operating state per pole 0.03 W  without load current share typical 6W  insulation voltage rated value 690 V  degree of pollution 3  surge voltage resistance rated value 6000 V  maximum permissible voltage for protective separation  between main and auxiliary circuit 400 V  between auxiliary and auxiliary circuit 250 V  between control and auxiliary circuit 300 V  degree of protection NEMA rating other shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes  vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles  mechanical service life (operating cycles)  of the main contacts typical 10 000 000  of the signaling contacts typical 10 000 000  of the signaling contacts typical 10 000 000  electrical endurance (operating cycles) of auxiliary contacts  at DC-13 at 6 At 24 V typical 200 000  electrical endurance (operating cycles) of auxiliary contacts  at DC-13 at 6 At 24 V typical 200 000  ype of assignment contacts of the continuous operation according to IEC 60947-6-2  reference code according to IEC 81346-2 Q  Substance Prohibitance (Date) 0501/2012  SVHC substance name Lead romoxide (lead oxide) - 1317-36-8  Lead titanium zirconium oxide - 12626-81-2  Weight Ambient conditions  installation altitude at height above sea level maximum 2 000 m  ambient temperature  during operation - 20 +60 °C  during operation - 55 +80 °C	product function control circuit interface to parallel wiring	Yes
at AC in hot operating state at AC in hot operating state per pole without load current share typical  insulation voltage rated value degree of pollution 3 surge voltage resistance rated value 6 000 V  maximum permissible voltage for protective separation between main and auxillary circuit between auxiliary and auxillary circuit between auxiliary and auxillary circuit between auxiliary and auxillary circuit between control and auxillary circuit between emain and auxillary circuit between control and auxillary circuit between resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes wibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (operating cycles) of the main contacts typical of the main contacts typical of the signaling contacts typical of the signaling contacts typical at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical between code according to IEC 81346-2 Quut Substance Prohibitance (Date)  SVHC substance name  Lead: 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  Ambient conditions installation altitude at height above sea level maximum ambient temperature outing operation during storage  0.1 W  1.42 kg  Ambient conditions installation altitude at height above sea level maximum ambient temperature outing operation - 20 +60 °C - 55 +80 °C	product extension auxiliary switch	Yes
at AC in hot operating state per pole  without load current share typical  finsulation voltage rated value  degree of pollution  surge voltage resistance rated value  awaimum permissible voltage for protective separation  between main and auxiliary circuit  between auxiliary and auxiliary circuit  between control and suxiliary circuit  and on main feet sux feet and sux sux feet and sux feet	power loss [W] for rated value of the current	
without load current share typical finsulation voltage rated value degree of pollution surge voltage resistance rated value between main and auxiliary circuit between main and auxiliary circuit between control and auxiliary circuit a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes between control and auxiliary contacts between control and auxiliary contacts should be a 15 ms, f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles)  of the main contacts typical become control contacts typical become control contacts typical become control contacts between control cont	<ul> <li>at AC in hot operating state</li> </ul>	0.1 W
insulation voltage rated value degree of pollution surge voltage resistance rated value 6 000 V  maximum permissible voltage for protective separation • between main and auxiliary circuit 400 V • between auxiliary and auxiliary circuit 250 V • between control and auxiliary circuit degree of protection NEMA rating shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 200 000 electrical endurance (operating cycles) of auxiliary contacts • at DC-13 at 6 A at 24 V typical 200 000 type of assignment reference code according to IEC 81346-2 Quuris at AC-15 at 6 A at 230 V typical 200 000 Cype of assignment continous operation according to IEC 60947-6-2  Terference code according to IEC 81346-2 Quuris Cycles CyHC substance name Lead -7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight 1.42 kg  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature • during operation • during storage -20 +60 °C -55 +80 °C	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.03 W
degree of pollution surge voltage resistance rated value 6 000 V  maximum permissible voltage for protective separation • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit 300 V  degree of protection NEMA rating shock resistance • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical • of the signaling contacts typical • of the signaling contacts typical • of the signaling contacts typical • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical  Type of assignment continous operation according to IEC 60947-6-2  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 Lead titanium zirconium oxide - 12626-81-2  Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during storage - 55 +80 °C	without load current share typical	6 W
surge voltage resistance rated value  maximum permissible voltage for protective separation  • between auxiliary circuit  • between auxiliary and auxiliary circuit  • between control and auxiliary circuit  • other  shock resistance  • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes  vibration resistance  • f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles)  • of the main contacts typical  • of auxiliary contacts typical  • of the signaling contacts typical  • of the signaling contacts typical  • at DC-13 at 6 A at 24 V typical  • at DC-13 at 6 A at 24 V typical  • at AC-15 at 6 A at 230 V typical  • at AC-15 at 6 A at 230 V typical  • oon oon  • at AC-15 at 6 A at 230 V typical  • continous operation according to IEC 60947-6-2  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  Lead titanium zirconium oxide - 12626-81-2  Weight  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during operation  • during storage	insulation voltage rated value	690 V
maximum permissible voltage for protective separation  • between main and auxiliary circuit  • between auxiliary and auxiliary circuit  • between control and auxiliary circuit  • between control and auxiliary circuit  degree of protection NEMA rating  shock resistance  a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes  vibration resistance  f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles)  • of the main contacts typical  • of auxiliary contacts typical  • of the signaling contacts typical  • of the signaling contacts typical  • of the signaling contacts typical  • at DC-13 at 6 A at 24 V typical  • at AC-15 at 6 A at 230 V typical  • at AC-15 at 6 A at 230 V typical  • onlinous operation according to IEC 60947-6-2  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  Lead itlanum zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation allitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  -55 +80 °C	degree of pollution	3
between main and auxiliary circuit between auxiliary and auxiliary circuit between control and auxiliary circuit  between control and auxiliary circuit  300 V  degree of protection NEMA rating shock resistance  shock resistance  ibration resistance  f=4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles)  of the main contacts typical of auxiliary contacts typical of the signaling contacts typical of the main contacts typical of the mai	surge voltage resistance rated value	6 000 V
between auxiliary and auxiliary circuit     between control and auxiliary circuit     other     degree of protection NEMA rating     shock resistance	maximum permissible voltage for protective separation	
between control and auxiliary circuit  degree of protection NEMA rating shock resistance shock resistance vibration resistance  f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (operating cycles)     of the main contacts typical     of auxiliary contacts typical     of the signaling contacts typical     of at 24 V typical     at DC-13 at 6 A at 24 V typical     at AC-15 at 6 A at 230 V typical     other of auxiliary contacts     other of a signament     continous operation according to IEC 60947-6-2 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 Lead ittanium zirconium oxide - 12626-81-2  Weight  Ambient conditions installation altitude at height above sea level maximum ambient temperature     oduring operation     other sistence and a second according to IEC 80947     over the sistence and according to IEC 80947     over the sistence and according to IEC 80947-6-2     over the sistence according to IEC 80947-6-2     over the sistence according to IEC 80947-6-2     over the sistence according to IEC 80947-6-2  O 0000  Substance Prohibitance (Date)  O 5/01/2012  SVHC substance name  2 000 m  ambient temperature  o during operation -20 +60 °C -55 +80 °C	<ul> <li>between main and auxiliary circuit</li> </ul>	400 V
degree of protection NEMA rating shock resistance shock resistance vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (operating cycles) of the main contacts typical of the signaling contacts typical of the signaling contacts typical of the signaling contacts typical leterical endurance (operating cycles) of auxiliary contacts at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical otype of assignment reference code according to IEC 81346-2 Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation -20 +60 °C -55 +80 °C	<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	250 V
shock resistance vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles) e of the main contacts typical for the signaling contacts typical of the signaling contacts typical to 000 000 electrical endurance (operating cycles) of auxiliary contacts at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical type of assignment continous operation according to IEC 60947-6-2  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 Lead titanium zirconium oxide - 12626-81-2  Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature e during operation e during storage  -20 +60 °C -55 +80 °C	between control and auxiliary circuit	300 V
vibration resistance  mechanical service life (operating cycles)  of the main contacts typical of the signaling contacts typical of the signal	degree of protection NEMA rating	other
mechanical service life (operating cycles)  • of the main contacts typical  • of auxiliary contacts typical  • of the signaling contacts typical  • at DC-13 at 6 A at 24 V typical  • at AC-15 at 6 A at 230 V typical  • at AC-15 at 6 A at 230 V typical  • ontinous operation according to IEC 60947-6-2  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 Lead itianium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  -55 +80 °C	shock resistance	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes
of the main contacts typical of auxiliary contacts typical of the signaling contacts	vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s <sup>2</sup> ; 10 cycles
of auxiliary contacts typical     of the signaling contacts typical     of the signaling contacts typical     of the signaling contacts typical     old 000 000  electrical endurance (operating cycles) of auxiliary contacts     old DC-13 at 6 A at 24 V typical     old 000     old AC-15 at 6 A at 230 V typical     old 000  type of assignment     continous operation according to IEC 60947-6-2  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 Lead titanium zirconium oxide - 12626-81-2  Weight  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature    oduring operation    oduring storage  10 000 000  10 000 000  20	mechanical service life (operating cycles)	
of the signaling contacts typical     electrical endurance (operating cycles) of auxiliary contacts         • at DC-13 at 6 A at 24 V typical             • at AC-15 at 6 A at 230 V typical             • tontinous operation according to IEC 60947-6-2              reference code according to IEC 81346-2              Substance Prohibitance (Date)  SVHC substance name              Cada — 7439-92-1              Lead — 7439-92-1              Lead monoxide (lead oxide) — 1317-36-8              Lead titanium zirconium oxide — 12626-81-2  Weight  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  10 000 000  200 000	<ul> <li>of the main contacts typical</li> </ul>	10 000 000
electrical endurance (operating cycles) of auxiliary contacts  • at DC-13 at 6 A at 24 V typical  • at AC-15 at 6 A at 230 V typical  type of assignment  continous operation according to IEC 60947-6-2  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  Lead titanium zirconium oxide - 12626-81-2  Weight  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  • during storage	<ul> <li>of auxiliary contacts typical</li> </ul>	10 000 000
<ul> <li>at DC-13 at 6 A at 24 V typical</li> <li>at AC-15 at 6 A at 230 V typical</li> <li>200 000</li> <li>type of assignment</li> <li>continous operation according to IEC 60947-6-2</li> <li>reference code according to IEC 81346-2</li> <li>Q</li> <li>Substance Prohibitance (Date)</li> <li>SVHC substance name</li> <li>Lead - 7439-92-1</li> <li>Lead monoxide (lead oxide) - 1317-36-8</li> <li>Lead titanium zirconium oxide - 12626-81-2</li> <li>Weight</li> <li>1.42 kg</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>2 000 m</li> <li>ambient temperature</li> <li>during operation</li> <li>-20 +60 °C</li> <li>during storage</li> <li>-55 +80 °C</li> </ul>	of the signaling contacts typical	10 000 000
at AC-15 at 6 A at 230 V typical      type of assignment     continous operation according to IEC 60947-6-2  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 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  during operation  during storage  200 000  - 20 +60 °C  - 55 +80 °C	electrical endurance (operating cycles) of auxiliary contacts	
type of assignment  continous operation according to IEC 60947-6-2  reference code according to IEC 81346-2  Q Substance Prohibitance (Date)  5VHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  continous operation according to IEC 60947-6-2  Q  2000 m  555 +80 °C	• at DC-13 at 6 A at 24 V typical	30 000
reference code according to IEC 81346-2  Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  -55 +80 °C	• at AC-15 at 6 A at 230 V typical	200 000
Substance Prohibitance (Date)  SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  -20 +60 °C  -55 +80 °C	type of assignment	continous operation according to IEC 60947-6-2
SVHC substance name  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  -20 +60 °C  -55 +80 °C	reference code according to IEC 81346-2	Q
Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Weight  1.42 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  1.42 kg  2 000 m  -20 +60 °C -55 +80 °C	Substance Prohibitance (Date)	05/01/2012
Ambient conditions installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  2 000 m  -20 +60 °C  -55 +80 °C	SVHC substance name	Lead monoxide (lead oxide) - 1317-36-8
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  2 000 m  -20 +60 °C  -55 +80 °C	Weight	1.42 kg
ambient temperature         ● during operation       -20 +60 °C         ● during storage       -55 +80 °C	Ambient conditions	
<ul> <li>during operation</li> <li>during storage</li> <li>-20 +60 °C</li> <li>-55 +80 °C</li> </ul>	installation altitude at height above sea level maximum	2 000 m
• during storage -55 +80 °C	ambient temperature	
	during operation	-20 +60 °C
◆ during transport     →55 +80 °C	during storage	-55 +80 °C
•	during transport	-55 +80 °C

relative humidity during operation	10 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	0.32 1.25 A
formula for making capacity limit current	38.4 x le
	32 x le
formula for limit current breaking capacity	32 X IE
yielded mechanical performance for 4-pole AC motor	0.07.144
at 400 V rated value	0.37 kW
at 500 V rated value	0.55 kW
at 690 V rated value	0.75 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
<ul> <li>at AC at 400 V rated value</li> </ul>	1.25 A
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	1.25 A
• at AC-43	
— at 400 V rated value	1.1 A
— at 500 V rated value	1.2 A
— at 690 V rated value	1.1 A
operating power	
• at AC-3 at 400 V rated value	0.37 kW
• at AC-43	
— at 400 V rated value	370 W
— at 500 V rated value	550 W
— at 690 V rated value	750 W
no-load switching frequency	3 600 1/h
operating frequency	
<ul> <li>at AC-41 according to IEC 60947-6-2 maximum</li> </ul>	750 1/h
• at AC-43 according to IEC 60947-6-2 maximum	250 1/h
Control circuit/ Control	
type of voltage	AC/DC
control supply voltage 1 at AC	7.050
at 50 Hz rated value	240 V
• at 50 Hz	110 240 V
• at 60 Hz	110 240 V
control supply voltage frequency	110 240 V
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage 1 at DC rated value	240 V
control supply voltage 1 at DC	110 240 V
holding power	0.11
• at AC maximum	6 W
at DC maximum	5.1 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of NO contacts of instantaneous short-circuit trip unit for	1
signaling contact	
number of CO contacts of the current-dependent overload release for signaling contact	1
number of CO contacts of the current-dependent overload	1 10 A
number of CO contacts of the current-dependent overload release for signaling contact	
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum	10 A
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V	10 A
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions	10 A 0.27 A
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class	10 A 0.27 A
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)	10 A 0.27 A  CLASS 10 and 20 adjustable
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)  • at 400 V rated value	10 A 0.27 A  CLASS 10 and 20 adjustable 53 kA
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)  • at 400 V rated value  • at 500 V rated value	10 A 0.27 A  CLASS 10 and 20 adjustable  53 kA 3 kA
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value	10 A 0.27 A  CLASS 10 and 20 adjustable  53 kA 3 kA
number of CO contacts of the current-dependent overload release for signaling contact  operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  UL/CSA ratings	10 A 0.27 A  CLASS 10 and 20 adjustable  53 kA 3 kA

at COO V rated walls	4.0F.A
• at 600 V rated value	1.25 A
yielded mechanical performance [hp] for 3-phase AC motor	0.51
• at 460/480 V rated value	0.5 hp
• at 575/600 V rated value	0.5 hp
contact rating of auxiliary contacts according to UL	contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300
Short-circuit protection	
product function short circuit protection	Yes
design of short-circuit protection	electromagnetic
design of the fuse link	
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A
<ul> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> </ul>	6A gL/gG/400V
<ul> <li>for short-circuit protection of the signaling switch of the overload release required</li> </ul>	4A gL/gG/400V
Installation/ mounting/ dimensions	
mounting position	any
mounting position recommended	vertical, on horizontal standard DIN rail
fastening method	screw and snap-on mounting
height	191 mm
width	45 mm
depth	165 mm
Connections/ Terminals	
product component removable terminal for main circuit	Yes
product component removable terminal for main circuit	Yes
control circuit	
type of electrical connection	
for main current circuit	plug-in without terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1.5 6 mm²), 1x 10 mm²
finely stranded with core end processing	2x (1.5 6 mm²)
finely stranded without core end processing	2x (1.5 6 mm²)
type of connectable conductor cross-sections	27 (1.0 0 11111 )
for auxiliary contacts	
	2v (0.25
— solid	2x (0.25 1.5 mm²)
— finely stranded with core end processing	2x (0.25 1.5 mm²)
— finely stranded without core end processing	2x (0.25 1.5 mm²)
for AWG cables for auxiliary contacts	2x (24 16)
Safety related data	
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	3 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
IEC 61508	
T1 value for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
Communication/ Protocol	
product function bus communication	No
protocol is supported	
AS-Interface protocol	No
IO-Link protocol	No
product function control circuit interface with IO link	No
Electromagnetic compatibility	
conducted interference	
due to burst according to IEC 61000-4-4	4 kV main contacts, 2 kV auxiliary contacts
	. I
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	4 kV main contacts, 2 kV auxiliary contacts

• due to conductor-conductor surge according to IEC 61000-4-5	2 kV main contacts, 1 kV auxiliary contacts
<ul> <li>due to high-frequency radiation according to IEC 61000- 4-6</li> </ul>	0.15-80Mhz at 10V
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	8 kV
conducted HF interference emissions according to CISPR11	150 kHz 30 MHz Class A
field-bound HF interference emission according to CISPR11	30 1000 MHz Class A
Supply voltage	
Supply voltage required Auxiliary voltage	No
Display	
number of LEDs	2
Approvals Certificates	

## **General Product Approval**







Confirmation





**EMV** 

**Functional Saftey** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report







other

**Dangerous goods** 

**Environment** 

Confirmation

**Transport Information** 

Environmental Confirmations

Information on the packaging

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

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=3RA6120-2BP33

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA6120-2BP33}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-2BP33

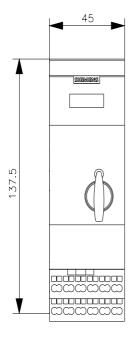
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

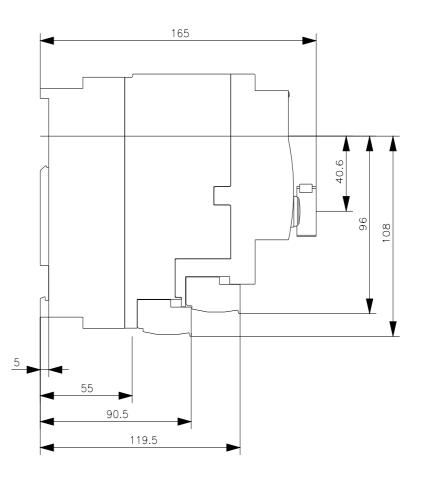
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA6120-2BP33&lang=en

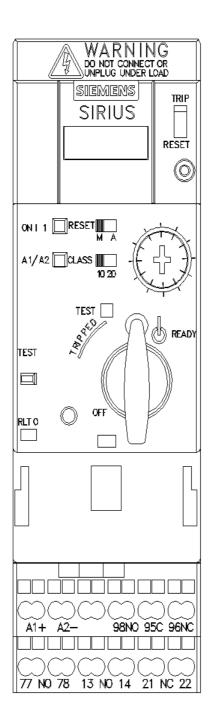
Characteristic: Tripping characteristics, I²t, Let-through current

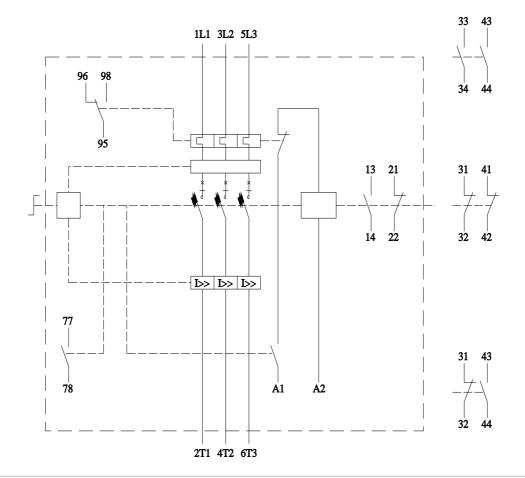
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-2BP33/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-2BP33&objecttype=14&gridview=view1









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