## **SIEMENS**

Data sheet 3RA6120-1DP33



SIRIUS Compact load feeder DOL starter 690 V 110...240 V AC/DC 50...60 Hz 3...12 A IP20 Connection main circuit: plug-in, without terminals Connection auxiliary circuit: screw terminal

product designation design of the product product type designation  SRA61  General technical data product function control circuit interface to parallel wring product extension auxiliary switch  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  degree of pollution  3  surge voltage resistance rated value  • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between ontrol and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between of protection NEMA rating shock resistance  mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical • of sexibary contacts typical • of the signaling contacts typical • of auxiliary contact stypical • of the signaling contacts typical • of auxiliary contacts typical • of the signaling contacts typical • of the signaling contacts typical • of auxiliary contacts typical • of the signaling contact typical • of the signal	product brand name	SIRIUS
product type designation  General technical data product function control circuit interface to parallel wiring product extension auxiliary switch  prower loss [W] for rated value of the current  at AC in hot operating state at AC in hot operating state but AC in hot operating state at AC in hot operating state at AC in hot operating state per pole without load current share typical degree of pollution  surge voltage resistance rated value degree of pollution  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 between control and auxiliary circuit shock resistance  vibration resistance fexumes and auxiliary circuit for the main contacts typical of the signaling contact typical of the signaling conta	product designation	compact starter
Control technical data 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   1.8 W  • at AC in hot operating state pole   0.6 W  • without load current share typical   6 W  insulation voltage rated value   690 V  degree of pollution   3  surge voltage resistance rated value   6 000 V  maximum permissible voltage for protective separation   250 V  • between main and auxiliary circuit   250 V  • between control and auxiliary circuit   250 V  • between control and auxiliary circuit   300 V  degree of protection NEMA rating   other   300 V  degree of protection NEMA rating   other   300 V  shock resistance   a=80 m/s2 (6g) with 10 ms per 3 shocks in all axes   250 V  • between control and auxiliary circuit   250 V  • of the main contacts typical   10 000 000   10 000 000   10 000 000	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 typical • without load current sharet typical • gog v  degree of pollution • between rain and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • of the resistance • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes • vibration resistance	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 insulation voltage rated value • degree of pollution  surge voltage resistance rated value • between parmissible voltage for protective separation • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between for Insurance of the sistance  insulation resistance  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 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at	General technical data	
power loss [W] for rated value of the current  at AC in hot operating state	product function control circuit interface to parallel wiring	Yes
at AC in hot operating state per pole 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 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 between auxiliary and auxiliary circuit 600 W  degree of protection NEMA rating 600 W  degree of protection NEMA rating 600 W  shock resistance 61 = 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles  mechanical service life (operating cycles) 61 of the main contacts typical 61 000 000 61 of auxiliary contacts typical 61 000 000 61 of auxiliary contacts typical 71 000 000 71 000 000 72 of the signaling contacts typical 73 00 000 74 of the signaling contacts typical 75 00 000 76 of auxiliary contacts typical 76 of auxiliary contacts 77 00 000 78 of the signaling contacts typical 79 of the signaling contacts typical 70 000 000 70 ono 70 ono 71 of the control of the con	product extension auxiliary switch	Yes
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 auxiliary circuit between auxiliary and auxiliary circuit between control and suriliary contacts between control and suriliary contacts typical between control and suriliary contacts typical between control and suriliary contacts between control and suriliary co	power loss [W] for rated value of the current	
without load current share typical final sulation 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 between control near tating 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 the main contacts typical of the signaling contacts typical at CC-13 at 6 A at 24 V typical at AC-15 at 6 A at 23 V typical at AC-15 at 6 A at 23 V typical  at AC-15 at 6 A at 23 V typical continous operation according to IEC 60947-8-2  Gubstance Prohibitance (Date)  SVHC substance name  Lead monoxide (lead oxide) - 1317-38-8 Lead union zirconium oxide - 12626-81-2  Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature eduring operation eduring storage	<ul> <li>at AC in hot operating state</li> </ul>	1.8 W
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 auxiliary circuit • between nain 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 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 20 000 electrical endurance (operating cycles) of auxiliary contacts • at DC-13 at 6 A at 230 V typical 200 000 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 1,418 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage -55 +80 °C	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.6 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 250 V • between control and auxiliary circuit 300 V  degree of protection NEMA rating shock resistance 1 = 60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance 1 = 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 auxiliary contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 20 000 • at AC-15 at 6 A at 24 V typical 30 000 • at AC-15 at 6 A at 230 V typical 200 000 type of assignment continous operation according to IEC 80947-6-2 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 - 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    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 auxiliary contacts typical   10 000 000  • of the signaling contacts typical   10 000 000  • of the signaling contacts typical   30 000  • at AC-15 at 6 A at 24 V typical   200 000  • at AC-15 at 6 A at 230 V typical   200 000  type of assignment   continuous operation according to IEC 60947-6-2  reference code according to IEC 81346-2   Q  Substance Prohibitance (Date)   05/01/2012  SVHC substance name   Lead - 7439-92-1   Lead monoxide (lead oxide) - 1317-36-8   Lead titanium zirconium oxide - 12626-81-2  Weight   1.418 kg   Ambient conditions  installation altitude at height above sea level maximum   2 000 m   ambient temperature   0 during operation   -20 +60 °C   -25 +80 °C	insulation voltage rated value	690 V
maximum permissible voltage for protective separation  • between main and auxiliary circuit  • between control 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 tilanium zirconium oxide - 12626-81-2  Weight  1.418 kg  Ambient conditions  installation altitude 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  other other shock resistance  reference code according to IEC 81346-2  Substance name  between conditions installation altitude at height above sea level maximum  ambient temperature  other  other  250 V  260 V  260 V  260 V  260 With 10 ms per 3 shocks in all axes  other special according to ger 20 m/s²; 10 cycles  10 000 000  10 000 000  10 000 000  10 000 00	surge voltage resistance rated value	6 000 V
between auxiliary and auxiliary circuit     between control and auxiliary circuit     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 the signaling 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     ordinates code according to IEC 81346-2     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 wise AB at 20 C C     outsing storage     other wise AB at 20 C     outsing storage     other wise AB at 20 C     outsing storage  other according to IEC 80947-6-2  according to IEC 60947-6-2  continuous operation  according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous operation according to IEC 60947-6-2  continuous opera	<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 auxiliary contacts typical of the signaling contacts typical leterrical 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 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 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 e during operation e during storage  -20 +60 °C e during storage	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  1.418 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  • during storage	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 of the signaling conta	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     old 05/01/2012  SVHC 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     oldring operation     oldring storage  -20 +60 °C  -55 +80 °C	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      type 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  during operation  during storage  10 000 000  200 000  200 000  200 000  Lead - 7439-92-1  Lead monoxide (lead oxide) - 1317-36-8  Lead titanium zirconium oxide - 12626-81-2  Volume of C  -20 +60 °C  -55 +80 °C	<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  -20 +60 °C  • during storage  -55 +80 °C	<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>1.418 kg</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>during operation</li> <li>during storage</li> <li>-20 +60 °C</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  1.418 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  during operation during storage  -20 +60 °C  during storage	electrical endurance (operating cycles) of auxiliary contacts	
type 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  1.418 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  05/01/2012  Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2  Veight  1.418 kg  - 2000 m	• 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  1.418 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -20 +60 °C  • during storage	• 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  1.418 kg  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  -20 +60 °C  • during storage	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  1.418 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  1.418 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  1.418 kg  2 000 m  -20 +60 °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	1.418 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	
3 44 3	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	
	3
number of poles for main current circuit adjustable current response value current of the current-	3 12 A
dependent overload release	J 12 N
formula for making capacity limit current	12 x le
formula for limit current breaking capacity	10 x le
yielded mechanical performance for 4-pole AC motor	
at 400 V rated value	5.5 kW
• at 500 V rated value	5.5 kW
• at 690 V rated value	7.5 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
at AC at 400 V rated value	12 A
at AC-3 at 400 V rated value	12 A
• at AC-43	
— at 400 V rated value	11.5 A
— at 500 V rated value	12.4 A
— at 690 V rated value  — at 690 V rated value	8.9 A
	0.0 A
operating power	5 5 MM
• at AC-3 at 400 V rated value	5.5 kW
• at AC-43	F F00 W
— at 400 V rated value	5 500 W
— at 500 V rated value	5 500 W
— at 690 V rated value	7 500 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	
• at 50 Hz rated value	240 V
● at 50 Hz	110 240 V
● at 60 Hz	110 240 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage 1 at DC rated value	240 V
control cumply voltage 4 at DC	
Control Supply Voltage 1 at DC	110 240 V
control supply voltage 1 at DC holding power	110 240 V
holding power  • at AC maximum	110 240 V 6 W
holding power	
holding power  • at AC maximum  • at DC maximum	6 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit for signaling contact  number of CO contacts of the current-dependent overload	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit for signaling contact  number of CO contacts of the current-dependent overload release for signaling contact	6 W 5.1 W 1 1 1 1 1 1
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 operational current of auxiliary contacts at DC-13 at 250 V	6 W 5.1 W
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions	6 W 5.1 W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class	6 W 5.1 W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 operational current of auxiliary contacts at DC-13 at 250 V  Protective and monitoring functions  trip class  operating short-circuit current breaking capacity (Ics)	6 W 5.1 W  1 1 1 1 1 1 CLASS 10 and 20 adjustable
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 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	6 W 5.1 W  1 1 1 1 1 1 CLASS 10 and 20 adjustable  53 kA
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit 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 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	6 W 5.1 W  1 1 1 1 1 1 CLASS 10 and 20 adjustable  53 kA 3 kA
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of NO contacts of instantaneous short-circuit trip unit 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 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 690 V rated value  • at 690 V rated value  UL/CSA ratings	6 W 5.1 W  1 1 1 1 1 1 CLASS 10 and 20 adjustable  53 kA 3 kA
holding power  • at AC maximum  • at DC maximum  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit 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 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	6 W 5.1 W  1 1 1 1 1 1 CLASS 10 and 20 adjustable  53 kA 3 kA

at COO V rated value	40.4
• at 600 V rated value	12 A
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	3 hp
• at 220/230 V rated value	3 hp
• at 460/480 V rated value	7.5 hp
at 575/600 V rated value	10 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
• for short-circuit protection of the signaling switch of the	6A gL/gG/400V
short-circuit release required	
<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
	170 mm
height	45 mm
depth Connections/ Terminals	165 mm
Connections/ Terminals	Voc
product component removable terminal for main circuit	Yes
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	plug-in without terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1.5 6 mm²), 1x 10 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1.5 6 mm²)
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid	0.5 4 mm², 2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm², 2x (0.5 1.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 14)
Safety related data	
proportion of dangerous failures	
with low demand rate according to SN 31920	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	100 FIT
31920	
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
IO-Link protocol     product function control circuit interface with IO link	No No
product function control circuit interface with IO link	No No
product function control circuit interface with IO link Electromagnetic compatibility	
product function control circuit interface with IO link  Electromagnetic compatibility  conducted interference	No
product function control circuit interface with IO link Electromagnetic compatibility	

<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	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 Con-firmations

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=3RA6120-1DP33

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA6120-1DP33}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1DP33

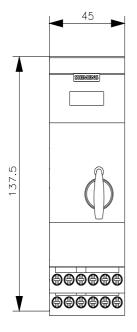
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

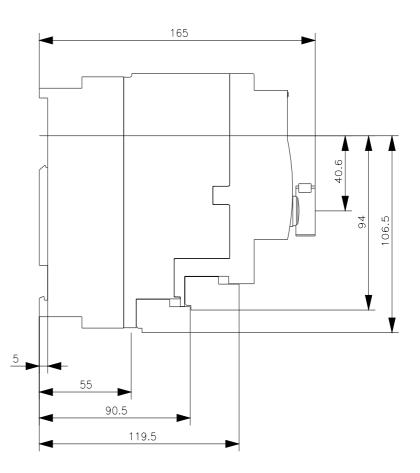
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA6120-1DP33&lang=en

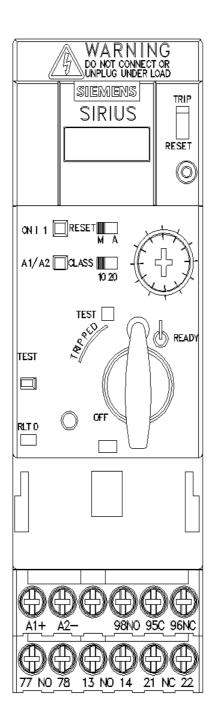
Characteristic: Tripping characteristics, I²t, Let-through current

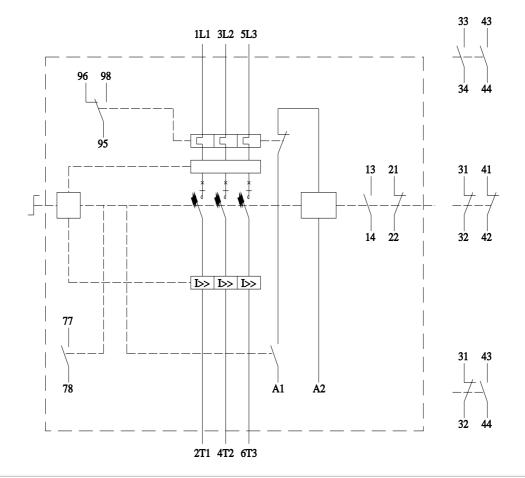
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1DP33/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-1DP33&objecttype=14&gridview=view1









last modified: 3/11/2024 🖸