SIEMENS

Data sheet

3RA6120-2EB33



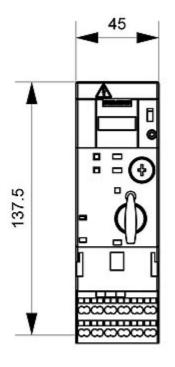
SIRIUS Compact load feeder DOL starter 690 V 24 V AC/DC 50...60 Hz 8...32 A IP20 Connection main circuit: plug-in, without terminals Connection auxiliary circuit: Spring-type terminal

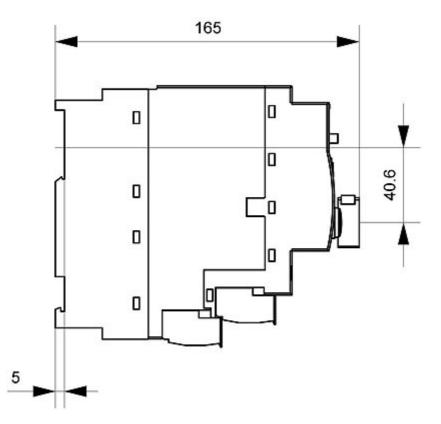
product brand name SIRUS product design of the product compact starter design of the product direct starter product type designation 3RA61 General technical data product function control circuit interface to parallel wiring Yes product textension auxiliary switch Yes Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W operating state 5.8 W operating state 6.80 V degree of pollution 3 surge voltage resistance rated value 6.800 V degrees of pollution 3 surge voltage resistance rated value 6.000 V between main and auxiliary circuit 250 V obetween main and auxiliary circuit 250 V obetween control and auxiliary circuit 250 V obetween control and auxiliary circuit 250 V obetween control and auxiliary circuit 250 V of the main contacts typical 10 000 000 of the signaling contacts typical 10 000 000 of the signaling contacts typical 10 000 000				
design of the product direct starter product type designation 37A61 General technical data product function control circuit interface to parallel wiring Yes product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W • per pole 1.8 W acd current share typical 650 V insulation voltage rated value 650 V degree of pollution 3 surge voltage resistance rated value 600 V • between main and auxiliary circuit 400 V • between control and auxiliary circuit 300 V • of the resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes • of the main contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 200 000 • at DC-13 at 6 A at 22 V typical 20 000 • at AC-15 at 6 A at 23 V typical 200 000 • at DC-13 at 6 A at 23 V typical 200 000 • at AC-15 at 6 A at 23 V typical 200 000 • at AC-15 at 6 A at 230 V typical <td< th=""><th>product brand name</th><th>SIRIUS</th></td<>	product brand name	SIRIUS		
product type designation 3RA61 General technical data	product designation	compact starter		
General technical data product function control circuit interface to parallel wiring Yes product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W • per pole 1.8 W power loss [W] for rated value of the current without load current share typical 3.5 W insulation voltage rated value 690 V degree of pollution 3 • between auxiliary and auxiliary circuit 260 V • between auxiliary and auxiliary circuit 300 V • between auxiliary and auxiliary circuit 300 V • between control and auxiliary circuit 300 V • between auxiliary and auxiliary circuit 300 V • between auxiliary and auxiliary circuit 300 V • between auxiliary circuit 300 V • degree of protection NEMA rating other • shock resistance f=4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s ² ; 10 cycles mechanical service life (switching cycles) other • of auxiliary contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 2000 m • at AC-15 at 6 A	design of the product	direct starter		
product function control circuit interface to parallel wiring Yes product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W • per pole 1.8 W node current share typical 3.5 W insulation voltage rated value 690 V degree of pollution 3 • between resistance rated value 690 V degree of pollution 3 • between auxiliary circuit 250 V • between auxiliary and auxiliary circuit 300 V degree of protection NEMA rating other shock resistance re 4 5.8 Hz, de 15 mm; f= 5.8 500 Hz, a= 20 m/s*, 10 cycles rechanical service life (switching cycles) 10 000 000 • of the main contacts typical 10 000 000 • of the signaling contacts typical 200 000 • at DC-13 at 6 A at 24 V typical 200 000 • at AC-15 at 6 A at 230 V typical 200 000	product type designation	3RA61		
product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W • per pole 1.8 W power loss [W] for rated value of the current without load current share typical 3.5 W insulation voltage rated value 690 V degree of pollution 3 surge voltage resistance rated value 690 V maximum permissible voltage for safe isolation 600 V maximum permissible voltage for safe isolation 400 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 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/s ² ; 10 cycles mechanical service life (switching cycles) 10 000 000 • of the main contacts typical 10 000 000 • of auxiliary contacts typical 10 000 000 • of the signaling contacts typical 200 000 (type of assignment continuous operation according to IEC 60947-6-2 (perference code ac	General technical data			
power loss [W] for rated value of the current at AC in hot operating state 5.4 W • per pole 1.8 W power loss [W] for rated value of the current without load current share typical 3.5 W insulation voltage rated value 690 V degree of pollution 3 surge voltage resistance rated value 6 000 V maximum permissible voltage for safe isolation 6 000 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 shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance fe 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s ² ; 10 cycles mechanical service life (switching cycles) 10 000 000 • of the main contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 200 000 • at DC-13 at 6 A at 24 V typical 200 000 • 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 continous	product function control circuit interface to parallel wiring	Yes		
operating stateI.8 W• per pole1.8 Wlinsulation voltage rated value of the current without load current share typical500 Vdegree of pollution3surge voltage resistance rated value600 Vmaximum permissible voltage for safe isolation400 V• between main and auxiliary circuit400 V• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles• of the main contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical30 000• at DC-13 at 6 A at 24 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-16 A tief A at 240 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at AC-16 A tief A threight above sea level maximum200 m• installation altitude at height above sea le	product extension auxiliary switch	Yes		
power loss [W] for rated value of the current without load current share typical 3.5 W insulation voltage rated value 690 V degree of pollution 3 surge voltage resistance rated value 6 000 V maximum permissible voltage for safe isolation 6 000 V • between main and auxiliary circuit 400 V • between nain 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/s ² ; 10 cycles mechanical service life (switching cycles) 10 000 000 • of the main contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 200 000 e at DC-13 at 6 A at 24 V typical 30 000 • 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 acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00		5.4 W		
load current share typical90 Vinsulation voltage rated value690 Vdegree of pollution3surge voltage resistance rated value6000 Vmaximum permissible voltage for safe isolation400 V• between main and auxiliary circuit400 V• between control and auxiliary circuit250 V• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef = 4 5.8 Hz, d = 15 mm; f = 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical30 000• at DC-13 at 6 A at 24 V typical30 000• at DC-13 at 6 A at 230 V typical200 000• at DC-13 at 6 A at 230 V typical200 000• at DC-13 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-16 at 6 hat 240 V typical30 000• at DC-15 at 6 A at 230 V typical200 000• at DC-16 at 6 hat 250 V typical200 000• at DC-16 at 6 hat 250 V typical30 000• at DC-16 at 6 hat 250 V typical200 000• at DC-16 at 6 hat 250 V typical502• at DC-16 at 6 hat 250 V typical200 000• at DC-16 at 6 hat 250 V typical502• at	• per pole	1.8 W		
degree of pollution 3 surge voltage resistance rated value 6 000 V maximum permissible voltage for safe isolation 6 000 V • 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/s ² ; 10 cycles • of the main contacts typical 10 000 000 • of the main contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the durance (switching cycles) of auxiliary contacts 30 000 • at DC-13 at 6 A at 24 V typical 30 000 • at DC-13 at 6 A at 230 V typical 200 000 • at DC-13 at 6 A at 230 V typical continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient temperature during operation -20 +60 °C • ambient temperature during operation -20 +60 °C • ambient temperature		3.5 W		
surge voltage resistance rated value 6 000 V maximum permissible voltage for safe isolation 400 V • between main and auxiliary circuit 250 V • between auxiliary 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 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/s ² ; 10 cycles mechanical service life (switching cycles) 0 000 000 • of the main contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • of the signaling contacts typical 10 000 000 • at DC-13 at 6 A at 24 V typical 30 000 • at DC-13 at 6 A at 230 V typical 200 000 • at DC-13 at 6 A at 230 V typical continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient temperature during operation -20 +60 °C • ambient temperature during operation -20 +60 °C • ambien	insulation voltage rated value	690 V		
maximum permissible voltage for safe isolation• between main and auxiliary circuit400 V• between auxiliary and auxiliary circuit250 V• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical30 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient temperature during operation-20 +60 °C• ambient temperature during operation-20 +60 °C• ambient temperature during storage-55 +80 °C	degree of pollution	3		
• between main and auxiliary circuit400 V• between auxiliary and auxiliary circuit250 V• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef = 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)10 000 000of the main contacts typical10 000 000of the signaling contacts typical10 000 000of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts30 000eta tDC-13 at 6 A at 24 V typical30 000at AC-15 at 6 A at 230 V typical200 000type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation • ambient temperature during storage2 000 m	surge voltage resistance rated value	6 000 V		
• between auxiliary and auxiliary circuit250 V• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical30 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000• type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient temperature during operation-20 +60 °C• ambient temperature during storage-20 +60 °C• ambient temperature during storage-55 +80 °C	maximum permissible voltage for safe isolation			
• between control and auxiliary circuit300 Vdegree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s ² ; 10 cyclesmechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of auxiliary contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical200 000• at DC-13 at 6 A at 24 V typical30 000• at DC-13 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-15 at 6 A at 230 V typical200 000• at DC-16 at 26 At 26 At 27090 At 200	 between main and auxiliary circuit 	400 V		
degree of protection NEMA ratingothershock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical10 000 000• of the signaling contacts typical10 000 000• at DC-13 at 6 A at 24 V typical30 000• at DC-13 at 6 A at 230 V typical200 000• at AC-15 at 6 A at 230 V typical200 000• at Continous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation-20 +60 °C• ambient temperature during storage-55 +80 °C	 between auxiliary and auxiliary circuit 	250 V		
shock resistancea=60 m/s2 (6g) with 10 ms per 3 shocks in all axesvibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)0 000 000o of the main contacts typical10 000 000o of the signaling contacts typical10 000 000e of the signaling contacts typical10 000 000e lectrical endurance (switching cycles) of auxiliary contacts30 000e at DC-13 at 6 A at 24 V typical30 000e at DC-13 at 6 A at 230 V typical200 000type of assignmentcontinuous operation according to IEC 60947-6-2Reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 me ambient temperature during operation e ambient temperature during storage-20 +60 °C -55 +80 °C	 between control and auxiliary circuit 	300 V		
vibration resistancef= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cyclesmechanical service life (switching cycles)i 0 000 000• of the main contacts typical10 000 000• of auxiliary contacts typical10 000 000• of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts30 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignment reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation • ambient temperature during storage-20 +60 °C -55 +80 °C	degree of protection NEMA rating	other		
mechanical service life (switching cycles)10 000 000• of the main contacts typical10 000 000• of auxiliary contacts typical10 000 000• of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts30 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignment reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation • ambient temperature during storage-20 +60 °C• ambient temperature during storage-55 +80 °C	shock resistance	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes		
• of the main contacts typical10 000 000• of auxiliary contacts typical10 000 000• of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts10 000 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation-20 +60 °C• ambient temperature during storage-55 +80 °C	vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles		
• of auxiliary contacts typical10 000 000• of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts	mechanical service life (switching cycles)			
• of the signaling contacts typical10 000 000electrical endurance (switching cycles) of auxiliary contacts10 000 000• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 m• ambient temperature during operation • ambient temperature during storage2 000 m	51	10 000 000		
electrical endurance (switching cycles) of auxiliary contacts • at DC-13 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 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient conditions 2 000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -55 +80 °C	 of auxiliary contacts typical 	10 000 000		
contacts• at DC-13 at 6 A at 24 V typical30 000• at AC-15 at 6 A at 230 V typical200 000type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 m• ambient temperature during operation-20 +60 °C• ambient temperature during storage-55 +80 °C	 of the signaling contacts typical 	10 000 000		
• at AC-15 at 6 A at 230 V typical 200 000 type of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient conditions 2000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -55 +80 °C				
type of assignmentcontinous operation according to IEC 60947-6-2reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.05.2012 00:00:00Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 m• ambient temperature during operation • ambient temperature during storage-20 +60 °C -55 +80 °C	 at DC-13 at 6 A at 24 V typical 	30 000		
reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -55 +80 °C	 at AC-15 at 6 A at 230 V typical 	200 000		
Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient conditions 2000 m installation altitude at height above sea level maximum 2 000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -55 +80 °C	type of assignment	continous operation according to IEC 60947-6-2		
Ambient conditions installation altitude at height above sea level maximum 2 000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -55 +80 °C	reference code acc. to IEC 81346-2	Q		
installation altitude at height above sea level maximum2 000 m• ambient temperature during operation-20 +60 °C• ambient temperature during storage-55 +80 °C	Substance Prohibitance (Date)	01.05.2012 00:00:00		
ambient temperature during storage -20 +60 °C -55 +80 °C	Ambient conditions			
• ambient temperature during storage -55 +80 °C	installation altitude at height above sea level maximum	2 000 m		
• ambient temperature during storage -55 +80 °C	 ambient temperature during operation 	-20 +60 °C		
		-55 +80 °C		
	 ambient temperature during transport 	-55 +80 °C		

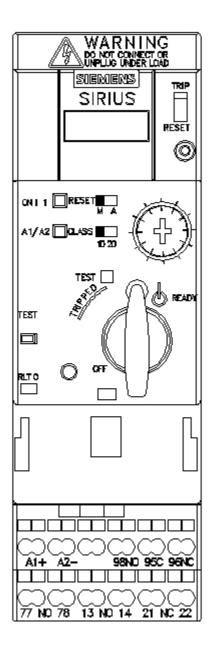
relative humidity during operation	10 90 %	
Main circuit		
number of poles for main current circuit	3	
adjustable current response value current of the	5 8 32 A	
current-dependent overload release	0 J2 A	
formula for making capacity limit current	12 x le	
formula for breaking capacity limit current	10 x le	
yielded mechanical performance for 4-pole AC motor		
 at 400 V rated value 	15 kW	
• at 500 V rated value	11 kW	
• at 690 V rated value	11 kW	
 operating voltage at AC-3 rated value maximum 	690 V	
operational current		
 at AC at 400 V rated value 	32 A	
• at AC-43		
— at 400 V rated value	29 A	
— at 500 V rated value	17.6 A	
— at 690 V rated value	12.8 A	
operating power		
• at AC-3 at 400 V rated value	15 kW	
• at AC-43		
— at 400 V rated value	15 000 W	
— at 500 V rated value	11 000 W	
— at 690 V rated value	11 000 W	
no-load switching frequency	3 600 1/h	
operating frequency		
• at AC-41 acc. to IEC 60947-6-2 maximum	750 1/h	
• at AC-43 acc. to IEC 60947-6-2 maximum	250 1/h	
Control circuit/ Control		
type of voltage		
type of voltage	AC/DC	
control supply voltage 1 at AC		
• at 50 Hz rated value	24 V	
 control supply voltage 1 at AC at 50 Hz rated value at 60 Hz rated value 		
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency	24 V 24 V	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value	24 V 24 V 50 Hz	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value	24 V 24 V	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1	24 V 24 V 50 Hz 60 Hz	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value	24 V 24 V 50 Hz	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value	24 V 24 V 50 Hz 60 Hz 24 V	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum	24 V 24 V 50 Hz 60 Hz 24 V	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum • at DC contacts for auxiliary contacts	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC rated value	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC rated value	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts number of NC 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	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts number of NC 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	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts number of NC 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	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1	
control supply voltage 1 at AC <td a="" b="" end="" of="" stat<="" state="" td="" the="" to=""><td>24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1</td></td>	<td>24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1</td>	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts 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	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 2 2 4 V	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value • at DC rated value holding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts number of NC 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	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1	
control supply voltage 1 at AC <td a="" end="" of="" state="" state<="" td="" term="" the="" to=""><td>24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2</td></td>	<td>24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2</td>	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value • at DC rated value bolding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts 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 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 breaking capacity operating short-circuit current (lcs) • at 400 V	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 4 V 2 3.5 W 3.1 W 2 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value • 2 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC 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 breaking capacity operating short-circuit current (lcs) • at 400 V • at 500 V rated value	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 2 CLASS 10 and 20 adjustable 53 kA 1 kA	
control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value • at DC rated value bolding power • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts 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 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 breaking capacity operating short-circuit current (lcs) • at 400 V	24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 1 1 1 1 1 2 1 2 4 V 3.5 W 3.1 W	

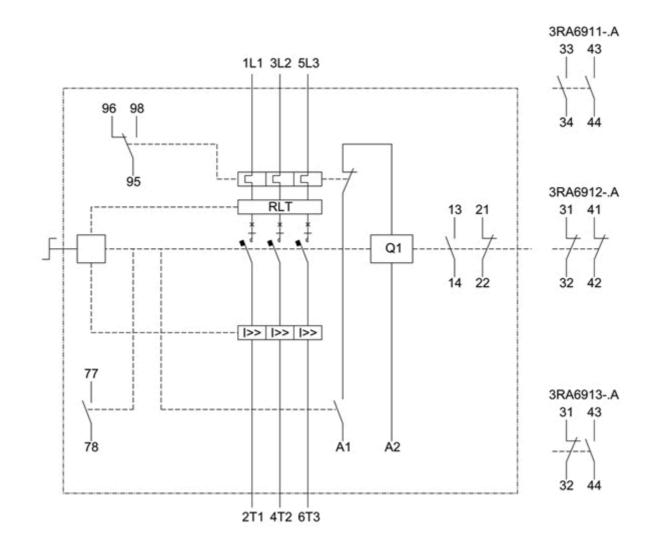
full-load current (FLA) for 3-phase AC motor			
at 480 V rated value	32 A		
yielded mechanical performance [hp] for 3-phase AC motor			
at 200/208 V rated value	7.5 hp		
• at 220/230 V rated value	10 hp		
 at 460/480 V rated value 	20 hp		
contact rating of auxiliary contacts according to UL	contacts 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			
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A		
 for short-circuit protection of the signaling switch of the short-circuit release required 	6A gL/gG/400V		
 for short-circuit protection of the signaling switch of the overload release required 	4A gL/gG/400V		
Installation/ mounting/ dimensions			
mounting position	any		
recommended	vertical, on horizontal standard mounting rail		
fastening method	screw and snap-on mounting		
height	191 mm		
width	45 mm		
depth	165 mm		
Connections/ Terminals			
product function			
 removable terminal for main circuit 	Yes		
 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 	spring-loaded terminals		
type of connectable conductor cross-sections			
 for main contacts 			
— solid	2x (2.5 6 mm²), 1x 10 mm²		
 finely stranded with core end processing 	2x (2.5 6 mm²)		
 finely stranded without core end processing 	2x (2.5 6 mm²)		
 at AWG cables for main contacts 	2x (14 10), 1x 8		
type of connectable conductor cross-sections			
 for auxiliary contacts 			
— 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)		
 at AWG cables for auxiliary contacts 	2x (24 16)		
Safety related data			
B10 value with high demand rate acc. to SN 31920	2 000 000		
proportion of dangerous failures			
 with low demand rate acc. to SN 31920 	40 %		
with high demand rate acc. to SN 31920	50 %		
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT		
T1 value for proof test interval or service life acc. to IEC 61508	20 у		
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 acc. to IEC 61000-4-4		4 kV main contacts, 2 kV a	auxiliary contacts			
 due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 						
 due to conductor-conductor surge acc. to IEC 01000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 		4 kV main contacts, 2 kV auxiliary contacts 2 kV main contacts, 1 kV auxiliary contacts				
 due to high-frequency radiation acc. to IEC 61000- 4-6 		0.15-80Mhz at 10V				
field-based interference acc. to IEC 61000-	4-3	10 V/m				
electrostatic discharge acc. to IEC 61000-4	1-2	8 kV				
conducted HF interference emissions acc.	to CISPR11	150 kHz 30 MHz Class	A			
field-bound HF interference emission acc.	to CISPR11	30 1000 MHz Class A				
Supply voltage						
Supply voltage required Auxiliary voltage		No				
Display						
number of LEDs		2				
Certificates/ approvals						
General Product Approval			EMC	Functional Safety/Safety of Machinery		
	UL u	EHC	RCM	UDE VDE		
Declaration of Conformity Test Certificates Marine / Shipping						
Miscellaneous EG-Konf.	<u>Type Test</u> <u>Certificates/Te</u> <u>Report</u>	st ABS	BUREAU VERITAS	Lloyd's Register urs		
Marine / Shipping			other			
PRS RINA	RMRS RMRS	DNV-GL	Confirmation			
Further information Information- and Downloadcenter (Catalog	is Brochures)				
https://www.siemens.com/ic10 Industry Mall (Online ordering system)						
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6120-2EB33						
Cax online generator						
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6120-2EB33 Service&Support (Manuals, Certificates, Characteristics, FAQs,)						
Service&Support (Manuals, Certificates, C https://support.industry.siemens.com/cs/ww/e						
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-2EB33⟨=en						
Characteristic: Tripping characteristics, I ² t, Let-through current						
https://support.industry.siemens.com/cs/ww/e	n/ps/3RA6120-2F	EB33/char				
Further characteristics (e.g. electrical end http://www.automation.siemens.com/bilddb/in	urance, switchin	g frequency)	333&objecttype=14&grid	dview=view1		









last modified:

1/18/2021 🖸