SIEMENS

Data sheet

3UF7020-1AU01-0



Basic unit SIMOCODE pro S, PROFIBUS DP interface 1.5 Mbit/s, 4I/20 freely parameterizable, Us: 110...240 V AC/DC, input for thermistor connection Monostable relay outputs, expandable by a multifunctional module

product brand name product designation design of the product	SIRIUS Motor management system Basic device 0
product type designation	SIMOCODE pro S
General technical data	
product function	
• bus communication	Yes
data acquisition function	Yes
diagnostics function	Yes
password protection	Yes
test function	Yes
maintenance function	Yes
product component	
input for thermistor connection	Yes
digital input	Yes
 input for analog temperature sensors 	No
 input for ground fault detection 	No
relay output	Yes
product extension	
 temperature monitoring module 	Yes
 current measuring module 	Yes
 current/voltage measuring module 	No
 fail-safe digital I/O module 	No
 ground-fault monitoring module 	Yes
 control unit with display 	No
control unit	Yes
 analog I/O module 	No
apparent power consumption	4.7 VA
consumed active power	2.5 W
insulation voltage with degree of pollution 3 at AC rated value	300 V
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance	
 when mounted on current measuring module according to IEC 60068-2-27 	10 g / 11 ms
 according to IEC 60068-2-27 	15g / 11 ms
vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
 vibration resistance when mounted on current measuring module according to IEC 60068-2-6 	1 4 Hz / 15 mm, 4 500 Hz / 1g
switching capacity current of the NO contacts of the relay outputs at AC-15	

	C A
• at 24 V	6 A
• at 120 V	6 A
 at 230 V switching capacity current of the NO contacts of the 	3 A
relay outputs at DC-13	
• at 24 V	2 A
• at 60 V	0.55 A
• at 125 V	0.25 A
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) typical	100 000
buffering time in the event of power failure	0 s
reference code according to IEC 81346-2	F
continuous current of the NO contacts of the relay outputs	
• at 50 °C	6 A
● at 60 °C	5 A
type of input characteristic	Type 1 in accordance with EN 61131-2
Substance Prohibitance (Date)	05/01/2012
certificate of suitability	
 according to ATEX directive 2014/34/EU 	BVS 06 ATEX F001
 acc. to Equipment and Protective System Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (S.I. 2016 No.1107) 	ITS21UKEX0464, ITS21UKEX0455X
according to UKCA	ITS21UKEX0464
explosion device group and category according to ATEX	II (2) G, II (2) D, I (M2)
directive 2014/34/EU	
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	class A
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
due to burst according to IEC 61000-4-4	2 kV (power ports) / 1 kV (signal ports)
 due to burst according to IEC 01000-4-4 due to conductor-earth surge according to IEC 	2 kV
61000-4-5	
due to conductor-conductor surge according to IEC 61000-4-5	1 kV
 due to high-frequency radiation according to IEC 61000-4-6 	10 V
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
conducted HF interference emissions according to CISPR11	corresponds to degree of severity A
field-bound HF interference emission according to CISPR11	corresponds to degree of severity A
Inputs/ Outputs	
product function	
parameterizable inputs	Yes
parameterizable outputs	Yes
number of inputs	4
for thermistor connection	1
number of digital inputs with a common reference potential	4
digital input version	
• type 1 acc. to IEC 61131	Yes
input voltage at digital input at DC rated value	24 V
number of outputs	2
number of semiconductor outputs	0
number of outputs as contact-affected switching	2
element	-
switching behavior	monostable
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
 with conductor cross-section = 0.5 mm² maximum 	50 m
 with conductor cross-section = 1.5 mm² maximum 	150 m
 with conductor cross-section = 2.5 mm² maximum 	250 m
Protective and monitoring functions	
product function	
product function	

 asymmetry detection 	Yes
 blocking current evaluation 	Yes
power factor monitoring	No
ground fault detection	Yes
phase failure detection	Yes
phase sequence recognition	No
voltage detection	No
monitoring of number of start operations	Yes
overvoltage detection	No
overcurrent detection 1 phase	Yes
undervoltage detection	No
undercurrent detection 1 phase other active manufacture	Yes
active power monitoring	No
product function current detection 	Yes
	Yes
 overload protection evaluation of thermistor motor protection 	Yes
total cold resistance number of sensors in series	1.5 kΩ
maximum	1.5 Ktz
response value of thermoresistor	3 400 3 800 Ω
of the short-circuit control	9 Ω
release value of thermoresistor	1 500 1 650 Ω
Motor control functions	
product function	
 parameterizable overload relay 	Yes
circuit breaker control	Yes
direct start	Yes
 reverse starting 	Yes
 star-delta circuit 	Yes
 star-delta reversing circuit 	No
Dahlander circuit	No
 Dahlander reversing circuit 	No
 pole-changing switch circuit 	No
 pole-changing switch reversing circuit 	No
 slide control 	No
valve control	No
Communication/ Protocol	
 protocol is supported PROFIBUS DP protocol 	Yes
 protocol is supported PROFINET IO protocol 	No
 protocol is supported PROFIsafe protocol 	No
 protocol is supported Modbus RTU 	No
 protocol is supported EtherNet/IP 	No
 protocol is supported OPC UA Server 	No
 protocol is supported LLDP 	No
 protocol is supported Address Resolution Protocol (ARP) 	No
 protocol is supported SNMP 	No
 protocol is supported HTTPS 	No
 protocol is supported NTP 	No
 protocol is supported Media Redundancy Protocol (MRP) 	No
 product function is supported Device Level Ring (DLR) 	No
number of interfaces	
 according to PROFINET 	0
 according to PROFIBUS 	1
according to Ethernet/IP	0
product function	
web server	No
shared device	No
at the Ethernet interface Autocrossover	No
at the Ethernet interface Autonegotiation at the Ethernet interface Autoengoing	No
at the Ethernet interface Autosensing is supported PROFINET system redundancy (S2)	No
 is supported PROFINET system redundancy (S2) 	No

• Laports FAO-Frency masking values • Log of the communication • Log of the commonication • Log of the communication the communication		
transformed 1.5 Mubbs ieldM0-device-specific information Yes ieldM-inferiored designation cloadin designation Yes ieldM-inferiored designation cloadin designation Yes ieldM-inferiored designation cloadin designation Yes ieldM-inferiored designation Screw hype terminal (15 Mibit) installation mounting/ dimensions Screw hype terminal (15 Mibit) installation mounting/ dimensions Screw wand snap-on mounting installation mounting/ dimensions Screw wand snap-on mounting installation mounting/ dimensions Screw wand snap-on mounting installation 40 mm installation 40 mm installation Wes installation Yes installation Yes <td> supports PROFlenergy measured values </td> <td>No</td>	 supports PROFlenergy measured values 	No
identification & maintenance function Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation/ocation designation Yes i & MM - higher level designation any i & MM - higher lev		
• KM0 - device-specific information Yes • KM0 - device-specific information Screw-type terminal (15 Mbit) • Installation - mounting dimensions Screw-type terminal (15 Mbit) • Installation - mounting dimensions Screw-type terminal (15 Mbit) • Installation - mounting dimensions Screw-type terminal (15 Mbit) • Installation - mounting dimensions Screw-type terminal (15 Mbit) • Installation - mounting dimensions Screw-type terminal (15 Mbit) • op 40 mm • op 40 mm • op 40 mm • op 0 mm		1.5 Mbit/s
• (M1 - higher level designation/location designation Yes • (M3 - comment Yes • (M3 - comment Yes • (M4 - higher level designation/location of the communication Seree-Hype terminal (1.5 Mbit) Installation and the communication any mounting position any screw and snap-on mounting screw and snap-on mounting height 100 mm vide 40 mm • lop 40 mm • lop 40 mm • lop 40 mm • lop 40 mm • lotom 0 mm • loto 0 mm • loto 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) • loto 1x (0.5 2.5 mm²), 2x (0.5 1 mm²) • loto 0 mm	identification & maintenance function	
• KM2 - installation data Yes • KM3 - installation data Yes page of electrical connection of the communication interface. Screw-type terminal (1.5 Mbit) Installation/mounting/climensions any mounting position any feathing method screw and snap-on mounting height 100 mm vidth 22.5 mm depth 124.5 mm • top 40 mm • totom 40 mm • totom 0 mm • totom 0 mm • totom 0 mm • totom 0 mm • fift 0 mm • fift 0 mm • for connectable conductor cross-sections 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) • for connectable conductor cross-sections 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) • for connectable conductor cross-sections for PROF PROFIBUS wire 20.00 m • anatimum 2 0.00 m • anatimum 2 0.00 m • anatimum 2 000 m	 I&M0 - device-specific information 	Yes
• (M3 - comment Yes by or of electrical connection of the communication interface. Screw-type terminal (1.5. Mbit) Installation/mounting/climensions any mounting position any fastering method screw and snap-on mounting height 100 mm width 22.5 mm etcp 40 mm • lop 40 mm • loft 0 km • loft kt (0 5 2.5 mm ²) 2x (0 5 1.5 mm ²) • loft 0 km m • loft kt (0 mm • lort st (0 mm	 I&M1 - higher level designation/location designation 	Yes
pype of electrical connection of the communication Installation/mounting/dimensions Screw-type terminal (1.5 Mbit) Installation/mounting/dimensions any screw and snap-on mounting tastering method any screw and snap-on mounting 100 mm height 100 mm 124.5 mm explore 40 mm 0 mm explore 40 mm 0 mm explore 0 mm 0 mm explore 0 mm 0 mm explore 0 mm 0 mm connections/Terminals 7 ves product component removable terminal for auxillary and control circuit 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) type of connectable conductor cross-sections 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) is did 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) type of connectable conductor cross-sections for PROFIBUS wire 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 m ⁴) tightening torque with socrew-type terminals type of connectable conductor cross-sections for PROFIBUS wire 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 m ⁴) tightening torque with socrew-type terminals type of connectable conductor cross-sections for PROFIBUS wire 2.00 m installation affitude at helight above sea level 5 +60 °C </td <td> I&M2 - installation date </td> <td>Yes</td>	 I&M2 - installation date 	Yes
pype of electrical connection of the communication Installation/mounting/dimensions Screw-type terminal (1.5 Mbit) Installation/mounting/dimensions any screw and snap-on mounting tastering method any screw and snap-on mounting 100 mm height 100 mm 124.5 mm explore 40 mm 0 mm explore 40 mm 0 mm explore 0 mm 0 mm explore 0 mm 0 mm explore 0 mm 0 mm connections/Terminals 7 ves product component removable terminal for auxillary and control circuit 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) type of connectable conductor cross-sections 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) is did 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 mm ⁴) type of connectable conductor cross-sections for PROFIBUS wire 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 m ⁴) tightening torque with socrew-type terminals type of connectable conductor cross-sections for PROFIBUS wire 1x (0.5 2.5 mm ⁴), 2x (0.5 1.5 m ⁴) tightening torque with socrew-type terminals type of connectable conductor cross-sections for PROFIBUS wire 2.00 m installation affitude at helight above sea level 5 +60 °C </td <td>I&M3 - comment</td> <td>Yes</td>	I&M3 - comment	Yes
Interface Interface Installation (mounting) dimensions any mounting position screw and snap-on mounting fastering method screw and snap-on mounting height 100 mm void 40 mm • top 0 mm • top 0 mm Connectable conductor cross-sections isold • firstly stranded with core end processing 1x (0.5 2.5 mm ³), 2x (0.5 1.6 mm ³) 1x (0.5 2.5 mm ³), 2x (0.5 1.6 mm ³) 1x (0.5 2.5 mm ³), 2x (0.5 1 mm ³) • firstlation attraition at whip th screw-type terminals 2x (0.5 0.8 hm • firstlation attraition at shight above sea level 1x (0.5 2.5 mm ³), 2x (0.5 1.6 m ³) • firstlation attraition at shight above sea level 1x (0.5 2.5 mm ³), 2x (0.5 1.6 m ³) • firstlation attraitie at theight above sea level 2x (0.5 1.6 m ³) • firstlation attraitie at theight above sea level 2x (0.5 1.6 m ³) • firstlatito	type of electrical connection of the communication	Screw-type terminal (1.5 Mbit)
mounting position fastening method height ary screw and snap-on mounting 100 mm height 100 mm with 22.5 mm expt 40 mm • top 40 mm • top 40 mm • top 40 mm • top 0 mm • tot 0 m	51	
mounting position fastening method height ary screw and snap-on mounting 100 mm height 100 mm with 22.5 mm expt 40 mm • top 40 mm • top 40 mm • top 40 mm • top 0 mm • tot 0 m	Installation/ mounting/ dimensions	
screw and snap-on mounting height screw and snap-on mounting 124.5 mm required spacing 124.5 mm • top 40 mm • top 40 mm • totom 0 mm connectons/Terminals Ves product component removable terminal for auxillary and control circuit Yes • finely stranded with core end processing 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) it (0.5 0.25 mm²), 2x (0.5 1.5 mm?) 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) it (0.5 0.6 Nm 0.6 0.8 Nm ightening torque (lptin) with screw-type terminals 0.6 0.8 Nm 52 10 fbin 2x 0.3 4 mm², AWG 22 Proditions 2000 m • 1 naximum 2000 m • 1 naximum 3000 mm, max. +50 °C (no protective separation) • 1 maximum 3000 mm, max. +50 °C (no protect		any
height 00 mm vidth 22.5 mm depth 124.5 mm required spacing 0 mm • top 40 mm • bottom 40 mm • left 0 mm • findly stranded with core end processing 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm²) • travainum 10 (5 2.5 mm²), 2x (0.5 1 mm²) • travainum 2 0.0 m • travainum 2 0.0 m • 1 maximum 2 000 m • 1 maximum 2 000 m, max. +50 °C (no protective separation) • 1 maximum 3 000 m, max. +50 °C (no protective separation) • during portain -25 +60 °C • during torspe -40 +80 °C • during torspe -40 +	•••	•
with depth 22.5 mm top 124.5 mm • top 40 mm • top 40 mm • totion 0 mm • totion 0 mm • totion 0 mm • fight 0 mm Connections/Terminals Yes product component removable terminal for auxiliary and control circuit Yes • finely standed with core end processing 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) • inely standed with core end processing 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) • inely standed with core end processing 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) • indightening torque with screw-type terminals 0.6 0.8 Nm tightening torque with screw-type terminals 52 7 Br/m tightening torque glibrin with screw-type terminals 52 7 Br/m tightening torque glistic with above sea level -1 maximum • 1 maximum 2000 m • 2 maximum 3000 mm, max. +50 °C (no protective separation) • 3 maximum 3 000 mm, max. +60 °C • during storage -40 +80 °C • during storage according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%, 102 (no sait mist), 132 (cand must not get into the devices), 1M4 • during storage according to IEC 60721 3K6 (no condensation, relative humidity		
depth 124.5 mm required spacing 40 mm • top 40 mm • top 40 mm • left 0 mm • inft 0 mm • inft 0 mm • connections/Terminals 0 mm Product component removable terminal for auxiliary and control circuit Yes • solid 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) • solid 1x (0.5 2.5 mm?), 2x (0.5 1.5 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG cables solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG satis solid 1x (0.5 2.5 mm?), 2x (0.5 1.6 mm?) • at AWG satis solid 0.5 0.8 N m • at AWG satis solid 0.6 mm max. +50 °C (no protective separation) • at maximum 2.000 m • 3 maximum 4.000 m; max. +50 °C • 4 uning operation -25 +60 °C • 4 uning operation -25 +60 °C • 4 uning operation -25 +60 °C <td>-</td> <td></td>	-	
required spacing 40 mm • top 40 mm • top 40 mm • left 0 mm • right 0 mm Connections/Terminals yes product component removable terminal for auxiliary and control circuit Yes • solid 1x (0.52.5 mm ²), 2x (0.51.5 mm ²) • finely stranded with core end processing 1x (0.52.5 mm ²), 2x (0.51.5 mm ²) • finely stranded with core end processing 1x (0.52.5 mm ²), 2x (0.51.6 m ²) • finely stranded with core end processing 1x (0.52.5 mm ²), 2x (0.51 mm ²) • at AWG cables solid 1x (0.52.5 mm ²), 2x (0.51 mm ²) • finely stranded with core end processing 5.27 10 ⁴ in type of connectable conductor cross-sections for PROFIBUS wire 2.000 m • at ansimum 2.000 m • 1 maximum 2.000 m • 2 maximum 3.000 m; max. +60 °C (no protective separation) • 3 maximum 3.000 m; max. +60 °C • during operation -25 +60 °C • during storage -40 +80 °C • during storage -40 +80 °C • during transport -40 +80 °C • during transport according to IEC 60721 2K6 (no formation of ice, no condensation, relative humidity 10 95%, 1023 (no salt mist), 152 (sand must not get into the de		
• top 40 mm • bottom 40 mm • bottom 40 mm • inft 0 mm • fight 0 mm Ornnectable conductor cross-sections * • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • solid 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • finitely stranded with core end processing 1x (0.5 2.5 mm²), 2x (0.5 15 mm²) • finitely stranded with core end processing 1x (20 14), 2x (20 16) • finitely stranded with core end processing 1x (20 14), 2x (20 16) • finitely stranded with core end processing 1x (20 14), 2x (20 16) • finitely end connectable conductor cross-sections for 2x 0.34 mm², AVG 22 PROFIBUS wire 2 000 m 2x 0.34 m², AVG 22 Ambient conditions 2 000 m 2 000 m • 1 maximum 2 000 m 2 000 m • 2 maximum 2 000 m -40 40 ° C • during storage -40 40 ° C • during storage according to IEC 60721 -40 40 ° C • during st	•	124.5 mm
 bottom left orm orght Connectional Terminals product component removable terminal for auxiliary and control circuit solid tx (0.5 2.5 mm²), 2x (0.5 1.5 mm²) solid tx (0.5 2.5 mm²), 2x (0.5 1 mm²) at AVG cables solid tx (0.5 2.5 mm²), 2x (0.5 115 mm²) tradictional to complete terminals tx (0.5 2.5 mm²), 2x (0.5 115 mm²) this terminal to complete terminals tx (0.5 2.5 mm²), 2x (0.5 115 mm²) this terminal to complete terminals this terminal terminal this maximum this maximum this maximum this maximum this terminal this methants this terminal this maximum this maximum this maximum <		40
• left 0 mm • right 0 mm Connections/Terminals Yes product component removable terminal for auxiliary and control circuit type of connectable conductor cross-sections Yes • solid 1x (0.52.5 mm?), 2x (0.51 mm?) • at AWG cables solid 1x (0.52.5 mm?), 2x (0.51 mm?) • at AWG cables solid 1x (0.52.5 mm?), 2x (0.51 mm?) • at AWG cables solid 1x (0.52.5 mm?), 2x (0.51 mm?) • at AWG cables solid 27 10 ⁱⁿ tightening torque (lof-in) with screw-type terminals 0.60.8 Nm 5.27 10 ⁱⁿ 27 10 ⁱⁿ tightening torque (lof-in) with screw-type terminals 27 10 ⁱⁿ 2.27 10 ⁱⁿ 27 10 ⁱⁿ tightening torque (lof-in) with screw-type terminals 27 10 ⁱⁿ 2.27 10 ⁱⁿ 27 10 ⁱⁿ assimum 3.000 m; max. +50 °C (no protective separation) • 3 maximum 3.000 m; max. +50 °C (no protective separation) assimum -40 ···. +80 °C • during storage -40 ···. +80 °C • during storage according to IEC 60721 3K6 (no condensation, relative humidity 10 ·· 95%), 122 (no salt mist), 132 (sand must not get into the devices), 3M6 • during operation according to IEC 60721 2K2, 2C1, 2K1, 2M2 relative humidity 1095 %		
• right 0 mm Connections/ Terminals Ves and control circuit Yes • solid 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) • finely stranded with core end processing 1x (0.5 2.5 mm²), 2x (0.5 1 mm²) • at AVG cables solid 1x (20 1, 2x (0.5 1, 2x (0.5)		
Connections/ Terminals product component removable terminal for auxiliary and control circuit Yes a control circuit 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) a tAWC cables solid 1x (0.5 2.5 mm²), 2x (0.5 1 mm²) a tAWC cables solid 1x (0.5 2.5 mm²), 2x (0.5 1 mm²) ifghtening torque with screw-type terminals 1x (0.5 2.5 mm²), 2x (0.5 1 mm²) ightening torque with screw-type terminals 5.2 71 bfin type of connectable conductor cross-sections for 2x 0.34 mm², AWG 22 PROFIBUS wire 2 000 m Ambient conditions 2 000 m installation altitude at height above sea level - · 1 maximum 2 000 m · 2 maximum 3 000 m; max. +50 °C (no protective separation) · 3 maximum 4 000 m; max. +40 °C (no protective separation) · 4 uning storage -40 +80 °C · 4 uning storage according to IEC 60721 -25 +60 °C · 4 uning storage according to IEC 60721 -26 (m or and ston get into the devices), 1M4 · 4 uning operation according to IEC 60721 -26 (m or and ston get into the devices), 1M4 · 4 uning operation gor fabrt-tircuit protection 10 95 % B300 / R300 Stortester da		
product component removable terminal for auxiliary and control circuit type of connectable conductor cross-sections Yes • solid 1x (0.525 mm ²), 2x (0.515 mm ³) • finely stranded with core end processing 1x (0.525 mm ²), 2x (0.516 mm ³) • at AVG cables solid 1x (0.525 mm ²), 2x (0.516 mm ³) tightening torque bifvin jwith screw-type terminals 0.60.8 Nm tightening torque bifvin jwith screw-type terminals 2.0.0 m • at awimum 2.0.0 m • 2 maximum 3000 m; max. +50 °C (no protective separation) • 3 maximum 3000 m; max. +50 °C (no protective separation) • 3 maximum 3000 m; max. +40 °C (no protective separation) • during operation -25 +60 °C • during transport -40 +80 °C • during transport -40 +80 °C • during transport according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 132 (and satt mist), 352 (sand must not get into the devices), 3M6 • during transport according to IEC 60721 3K6 (no condensation, relative humidity 10 95%), 132 (and satt mist), 352 (sand must not get into the devices), 3M6 • during transport according to IEC 60721 Safety rolated data • during transport according to IEC 60721 Safe (no condensation, rela		0 mm
and control circuit type of connectable conductor cross-sections • solid 1x (0.5 2.5 mm ²), 2x (0.5 1.5 mm ²) • finely stranded with core end processing 1x (0.5 2.5 mm ²), 2x (0.5 1.m ²) • at AWG cables solid 1x (20 14), 2x (20 16) tightening torque lift inj with screw-type terminals 0.6 0.8 N-m tightening torque lift inj with screw-type terminals 5.2 7 lift in type of connectable conductor cross-sections for 2x 0.34 mm ² , AWG 22 PROFIBUS wire - Ambient conditions - • 1 maximum 2 000 m • 2 maximum 3 000 m; max. +50 °C (no protective separation) • 3 maximum 4 000 m; max. +60 °C • during storage -40 +60 °C • during storage according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during operation according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity 0 95 % Solo / R300 Short-cincuit protection B300 / R300<	Connections/ Terminals	
 solid 1x (0.52.5 mm³), 2x (0.51.5 mm³) 1x (0.52.5 mm³), 2x (0.51 mm³) 1x (0.514), 2x (0.511 mm³) 2x (0.5114), 2x (0.51114) 2x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 2x (0.5114) 		Yes
 solid 1x (0.52.5 mm³), 2x (0.51.5 mm³) 1x (0.52.5 mm³), 2x (0.51 mm³) 1x (0.514), 2x (0.511 mm³) 2x (0.5114), 2x (0.51114) 2x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 1x (0.5114), 2x (0.5114) 2x (0.5114) 	type of connectable conductor cross-sections	
		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
	 finely stranded with core end processing 	
tightening torque with screw-type terminals 0.6 0.8 N·m tightening torque [lb/in] with screw-type terminals 2.2 7 lb/in type of connectable conductor cross-sections for 2x 0.34 mm², AWG 22 Ambient conditions		
tightening torque [lbf-in] with screw-type terminals 5.2 7 lbf-in type of connectable conductor cross-sections for 2x 0.34 mm², AWG 22 Ambient conditions 2 Installation altitude at height above sea level 1 • 1 maximum 2 000 m • 2 maximum 3 000 m; max. +50 °C (no protective separation) • 3 maximum 4 000 m; max. +40 °C (no protective separation) • during operation -25 +60 °C • during transport -40 +80 °C • during transport -40 +80 °C • during transport -40 +80 °C • during transport according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 • during operation 10 95 % • during operation 10 95 % contact rating of auxillary contacts according to UL B300 / R300 Short-circuit protection finger-safe Galvanic laolation (dectrically) protective separation according to IEC 60721 (design of short-circuit protection per output		
type of connectable conductor cross-sections for PROFIBUS wire 2x 0.34 mm³, AWG 22 Ambient conditions 2000 m installation altitude at height above sea level 1 maximum • 1 maximum 3 000 m; max. +50 °C (no protective separation) • 3 maximum 4 000 m; max. +40 °C (no protective separation) • during operation -25 +60 °C • during storage -40 +80 °C • during storage -40 +80 °C • during storage according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 3K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1) or 6 A (I_K < 500 A)		
PROFIBUS wire Ambiant conditions installation altitude at height above sea level • I maximum • 2 maximum • 2 maximum • 3 maximum • 4000 m; max. +40 °C (no protective separation) • ambient temperature • during operation • during storage • during transport • during operation according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during operation • during transport according to IEC 60721 • during of auxiliary contacts according to UL B300 / R300 Short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char:: 1.6 A (IEC 60947-5-1) or 6		
Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum • 3 maximum • during operation • during storage • during storage • during storage • during operation • during storage • during storage • during storage • during storage according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation • during operation • during transport according to IEC 60721 • during operation • during transport according to IEC 60721 • during operation • during operation • during transport according to UL B300 / R300 Short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char:: 1.6 A (IEC 60947-5-1), miniature circuit-breaker C char:: 1.6 A (IEC 60947-5-1), or 6 A (I_K < 500 A)		2x 0.34 mm², Awg 22
installation altitude at height above sea level 2000 m • 1 maximum 2 000 m • 2 maximum 3 000 m; max. +50 °C (no protective separation) • 4 maximum 4 000 m; max. +40 °C (no protective separation) • during operation -25 +60 °C • during transport -40 +80 °C • during transport according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C2 (no salt mist), 152 (sand must not get into the devices), 1M4 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity 10 95 % B300 / R300 B300 / R300 Short-circuit protection Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char:: 1.6 A (IEC 60947-5-1		
• 1 maximum 2 000 m • 2 maximum 3 000 m; max. +50 °C (no protective separation) • 3 maximum 4 000 m; max. +50 °C (no protective separation) • ambient temperature • during operation • during storage -40 +80 °C • during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection 10 95 % design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)		
• 2 maximum 3 000 m; max. +50 °C (no protective separation) • 3 maximum 4 000 m; max. +40 °C (no protective separation) ambient temperature -25 +60 °C • during operation -25 +60 °C • during storage -40 +80 °C • during transport -40 +80 °C • during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during transport according to IEC 60721 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity - • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)		
 3 maximum 4 000 m; max. +40 °C (no protective separation) ambient temperature during operation -25 +60 °C during storage -40 +80 °C during ransport -40 +80 °C environmental category during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 during transport according to IEC 60721 4K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) Safety related data touch protection against electrical shock finger-safe Galvanic isolation (electrically) protective separation according to IEC 60947-5-1) or 6 A (I_K < 500 A) Safety related data centrol circuit/ Control product function soft starter control type of voltage of the control supply voltage to AC Yes AC/DC 	installation altitude at height above sea level	0.000
ambient temperature -25 +60 °C • during operation -25 +60 °C • during storage -40 +80 °C • during transport -40 +80 °C • during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 3K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity - • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection 2Mer - safe design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	installation altitude at height above sea level • 1 maximum	
 during operation -25 +60 °C during storage -40 +80 °C -50 +40 °C	installation altitude at height above sea level • 1 maximum • 2 maximum	3 000 m; max. +50 °C (no protective separation)
• during storage -40 +80 °C • during transport -40 +80 °C • during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 3K6 (no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 2K2, 2C1, 2S1, 2M2 • during operation 10 95 % • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1), or 6 A (I_LK < 500 A)	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum	3 000 m; max. +50 °C (no protective separation)
• during transport -40 +80 °C environmental category • during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity 0 95 % • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum	3 000 m; max. +50 °C (no protective separation)
environmental category during operation according to IEC 60721 during storage according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during operation during operation during operation during of auxiliary contacts according to UL B300 / R300 Short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) Safety related data touch protection against electrical shock finger-safe Galvanic isolation (electrically) protective separation according to IEC 60947-1 All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control product function soft starter control type of voltage of the control supply voltage control supply voltage at AC Alc/DC 	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation)
• during operation according to IEC 60721 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 • during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity 0 95 % • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C
3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 • during transport according to IEC 60721 • during geration • during operation • during operation • during of short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C
3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 relative humidity • during operation contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C
• during transport according to IEC 60721 1S2 (sand must not get into the devices), 1M4 • during pration 2K2, 2C1, 2S1, 2M2 relative humidity • during operation • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Even links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C
• during transport according to IEC 60721 2K2, 2C1, 2S1, 2M2 relative humidity 10 95 % • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%),
relative humidity 0 • during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection B300 / R300 design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist),
• during operation 10 95 % contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Even links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 	 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
contact rating of auxiliary contacts according to UL B300 / R300 Short-circuit protection Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 	 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
Short-circuit protection design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 	 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
design of short-circuit protection per output Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2
circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 environ transport according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 %
circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)	 installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 %
touch protection against electrical shock finger-safe Galvanic isolation All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control Yes product function soft starter control supply voltage control supply voltage at AC AC/DC	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation contact rating of auxiliary contacts according to UL Short-circuit protection	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300
touch protection against electrical shock finger-safe Galvanic isolation All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control Yes product function soft starter control supply voltage control supply voltage at AC AC/DC	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation contact rating of auxiliary contacts according to UL Short-circuit protection	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature
Galvanic isolation (electrically) protective separation according to IEC 60947-1 All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control Yes type of voltage of the control supply voltage control supply voltage at AC AC/DC	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature
(electrically) protective separation according to IEC All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control Yes type of voltage of the control supply voltage control supply voltage at AC AC/DC	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)
60947-1 clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Control circuit/ Control Yes product function soft starter control Yes type of voltage of the control supply voltage control supply voltage at AC AC/DC	installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)
No. A0258, must be observed (link see further information) Control circuit/ Control Yes product function soft starter control Yes type of voltage of the control supply voltage AC/DC control supply voltage at AC Control supply voltage at AC	installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe
Control circuit/ Control product function soft starter control Yes type of voltage of the control supply voltage AC/DC control supply voltage at AC AC/DC	installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and
product function soft starter control Yes type of voltage of the control supply voltage AC/DC control supply voltage at AC AC/DC	installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report,
type of voltage of the control supply voltage AC/DC AC/DC	installation altitude at height above sea level 1 maximum 2 maximum 3 maximum ambient temperature during operation during storage during transport environmental category during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 during transport according to IEC 60721 during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation (electrically) protective separation according to IEC 60947-1 	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report,
control supply voltage at AC	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 relative humidity • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation (electrically) protective separation according to IEC 60947-1	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information)
	installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation (electrically) protective separation according to IEC 60947-1 Control circuit/ Control product function soft starter control	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information)
• at 50 Hz rated value 110 240 V	installation altitude at height above sea level • 1 maximum • 2 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 relative humidity • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation (electrically) protective separation according to IEC 60947-1 Control circuit/ Control product function soft starter control type of voltage of the control supply voltage	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information)
	installation altitude at height above sea level • 1 maximum • 2 maximum ambient temperature • during operation • during storage • during transport environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 • during transport according to IEC 60721 relative humidity • during operation contact rating of auxiliary contacts according to UL Short-circuit protection design of short-circuit protection per output Safety related data touch protection against electrical shock Galvanic isolation (electrically) protective separation according to IEC 60947-1 Control circuit/ Control product function soft starter control type of voltage of the control supply voltage control supply voltage at AC	3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C -40 +80 °C -40 +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 95 % B300 / R300 Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A) finger-safe All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) Yes AC/DC

 at 60 Hz rated 		110	0 240 V		
control supply volt	age frequency				
• 1 rated value		50			
• 2 rated value		60			
voltage frequency	al tolerance of the contro	ol supply 5 %	0		
control supply volt	age at DC				
 rated value 		110	0 240 V		
operating range fac value at DC	tor control supply volta	ge rated			
 initial value 		0.8	5		
 full-scale value 	9	1.1			
operating range fac value at AC at 50 H	ctor control supply volta z	ge rated			
 initial value 		0.8			
 full-scale value 		1.1			
operating range fac value at AC at 60 H	ctor control supply volta z	ge rated			
 initial value 		0.8			
 full-scale value 		1.1			
inrush current peal	(
• at 240 V		10	A		
• at 240 V	current peak	1 m	22		
		1 m	15		
Certificates/ approva					
General Product A	pproval				EMC
(SF)	Confirmation		Ē	гпг	Â
CSA				ĽĦL	RCM
For use in hazardo	us locations		Declaration of Con	formity	RCM Test Certificates
For use in hazardo	us locations		Declaration of Con	formity	RCM Test Certificates Special Test Certific-
IECE ×	(Ex)		Declaration of Con	CE	
For use in hazardo	us locations		Declaration of Con	formity EG-Konf.	Special Test Certific-
IECE ×	(Ex)	ccc	Declaration of Con	CE	Special Test Certific-
IECEx Test Certificates	ATEX		Declaration of Con	CE	Special Test Certific-
IECEx	(Ex)		Declaration of Con UK Keyster	CE	Special Test Certific-
IECEx Test Certificates	KER ATEX		UK CA Llovds Register	CE	Special Test Certific- ate
IECEx Test Certificates Type Test Certificates/Test Report	KER ATEX		UK CA Llovds Register	CE	Special Test Certific- ate
IECEx Test Certificates Type Test Certificates/Test Report	KER ATEX		UK CA Llovds Register	CE	Special Test Certific- ate
ECER ECER Test Certificates Type Test Certific- ates/Test Report	Special Test Certific- ate		UK CA Llovds Register	CE	Special Test Certific- ate
ECER ECER Test Certificates Type Test Certific- ates/Test Report	Exercise Special Test Certificate		UK CA Llovds Register	CE	Special Test Certific- ate
ECEx Test Certificates Type Test Certificates tates/Test Report other Confirmation	Exercised Special Test Certificates	Marine / Shipping	UK CA Llovds Register	CE	Special Test Certific- ate
ECEx Test Certificates Type Test Certific- ates/Test Report other Confirmation Further information	Special Test Certific- ate	Marine / Shipping	UK Loveds Lus	CE	Special Test Certific- ate
ECEx Test Certificates Type Test Certific- ates/Test Report other Confirmation Siemens has decid https://press.siemen Siemens is working Please contact your	Exercised Special Test Certificates	Marine / Shipping	UK Coversion-business ates. f the EAC certification if	You intend to import of	Special Test Certific- ate

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=3UF7020-1AU01-0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7020-1AU01-0

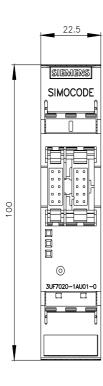
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

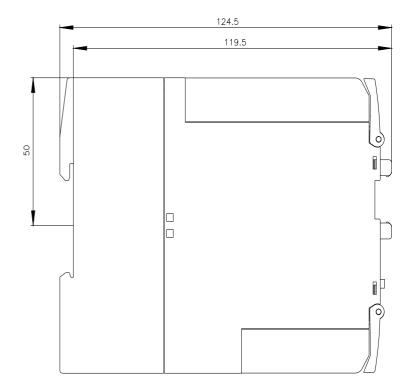
https://support.industry.siemens.com/cs/ww/en/ps/3UF7020-1AU01-0

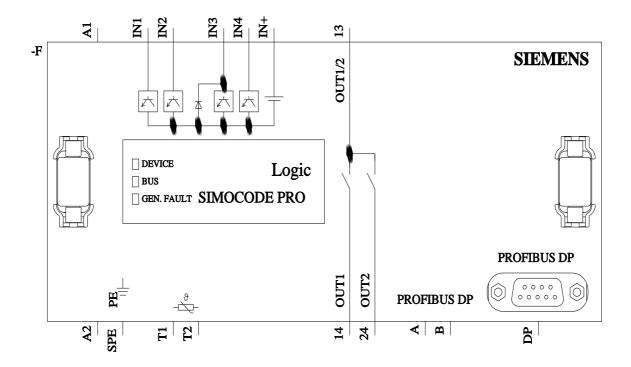
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7020-1AU01-0&lang=en

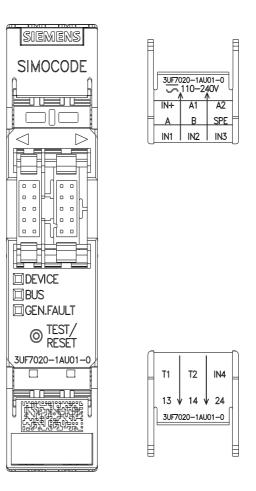
Test report No. A0258, protective separation

https://support.industry.siemens.com/cs/ww/en/view/109748152









last modified:

4/6/2023 🖸