



Ridder Growing Solutions B.V.
Honderdland 131
2676 LT
Maasdijk

Telephone: +31(0)153620300
E-mail: Info@Ridder.com
Web: <http://www.Ridder.com>








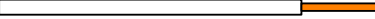




Project number:
Dealer name:
Dealer reference:
Dealer contact person:
Offer subject:
Offered by:

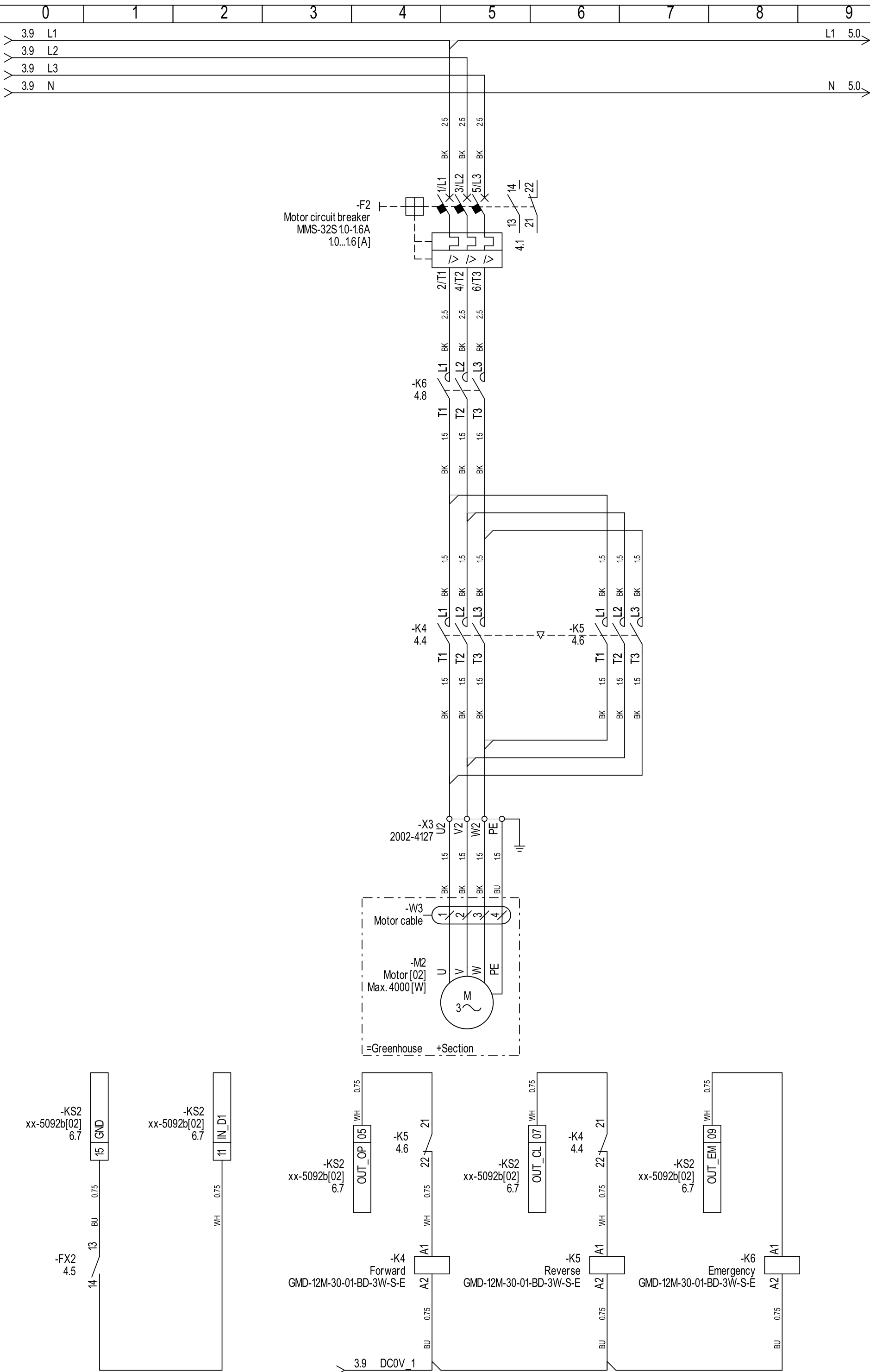
Machine type: Cabinet motor open_close control [02] 1.6A SSW ESR [3P400V+N+PE_50Hz]
Machine series: HortiMaX-Go!
Machine number: 20820001
Machine nominal supply voltage: [3x400V+N+PE/50Hz]
Machine nominal supply current:
Machine connected load:
Machine cos phi:
Machine maximum pre-fuse:

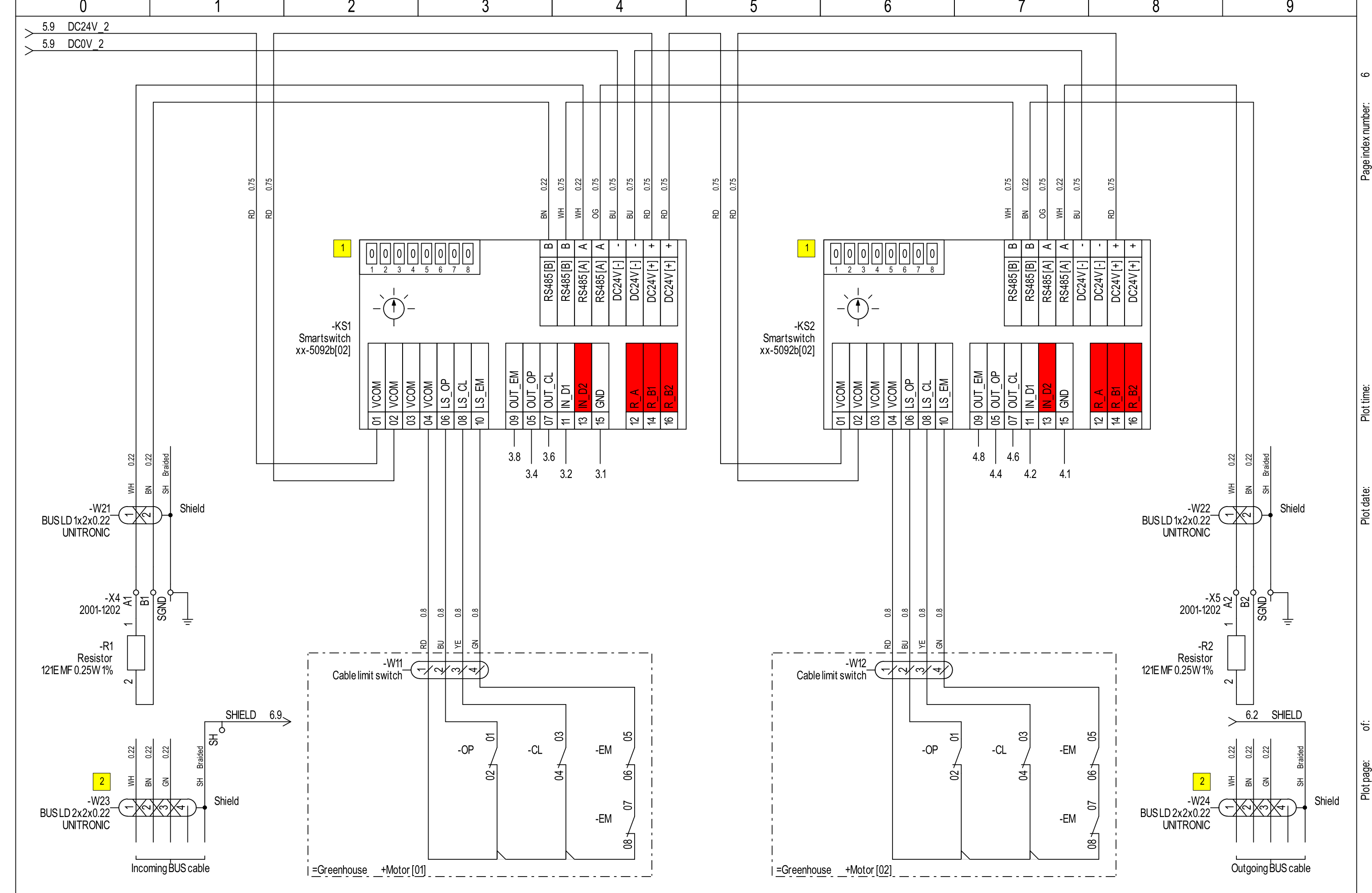
Corporation name:
Corporation address:
Postal code:
Domicile/city:
Region:
Country:
Contact person:
Telephone number:

Project name: 20820001EAS020 Cabinet motor open_close control [02] 1.6A SSW ESR [3P400V+N+PE_50Hz]
Project status: [As Build]
Project template: 20820001EAS011 Cabinet motor open_close control [02] 1.6A SSW ESR [3P400V+N+PE_50Hz]
Project initial date: 01/01/2024
Project designed by: MBL
Document number: 20820001EAS020
Page number: 1
Number of pages: 10

Notice 1: [ETO]
Notice 2:
Notice 3:

0		1		2		3		4		5		6		7		8		9	
NEN-EN-IEC 60204-1:2006		Color		Abbreviation		Power circuit													
		Black		BK		Mains voltage phase													
		Blue		BU		Mains voltage null													
		Yellow/green		YEGN		Ground[Systeem ground]													
						Control circuit													
		Red		RD		Control circuit DC24V plus													
		Blue		BU		Control circuit DC24V min													
		White		WH		Control circuit DC24V switched													
		Brown		BN		Control circuit AC24V phase													
		Yellow		YE		Control circuit AC24V null													
		Grey		GY		Control circuit AC24V switched													
						Alarm circuit													
		Orange		OG		Signaling and alarm													
Wire gauge designation in [mm²]																			





Project file: 20820001EAS020 Cabinet motor open_close control [02] 1.6A SSW ESR [3P400V+N+PE_50Hz]		Page initial date: 01/01/2024	Symbol scale: 1:1	Page: 6
Project number:	Function (=): =Unit	Project initial date: 01/01/2024	Page designed by: MBL	Drawing scale: 1:1 of: 10
URL: http://www.Ridder.com	Location (+): +Main cabinet	Project designed by: MBL	Page revision date:	Page index:
Document number: 20820001EAS020	Product (-): -Smartswitch [KS1..KS2]	Project status: [As Build]	Page revision:	

Customer inquiry [1] - Type of Smartswitch(es)

1	Which type of Smartswitch(es) does the customer want in the cabinet.
	The customer can opt for specific Smartswitch types to be installed in the cabinet. A Smartswitch type provides a certain type of control. How many and which type of Smartswitch(es) are to be installed in the cabinet? Register this in the table below.

#	Product code	Applied Smartswitches open_close
	20800000	Smartswitch 11-5092b[02]_5 Ventilation top
	20800020	Smartswitch 13-5092b[02]_5 Ventilation side
	20800500	Smartswitch 15-5092b[02]_5 Screen
	20800510	Smartswitch 26-5092b[02]_5 Screen outside

Customer inquiry [2] - Power rating of controlled motor(s)

2	What is the power rating of the motor(s) the customer wants to control with the cabinet.
	The power rating of a controlled motor determines the rating of the motor circuit breaker. What is the power rating of the controlled motor(s)? What is the rating of the applied motor circuit breaker(s)? Register this in the tables below.

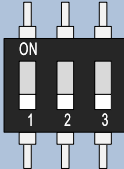
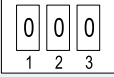
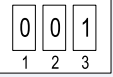
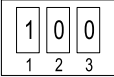
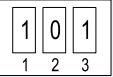
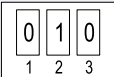
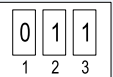
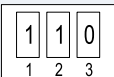
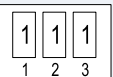
-	Motor	Power ratingmotor [W]
	[M1]	[W]
	[M2]	[W]

#	Product code	Applied motor circuit breakers	3-phase [W] [400V_50/60Hz] max.
	32510061	Motor circuit breaker MMS-32S 0.4-0.63A	120 [W]
	32510101	Motor circuit breaker MMS-32S 0.63-1.0A	250 [W]
2	32510161	Motor circuit breaker MMS-32S 1.0-1.6A	550 [W]
	32510251	Motor circuit breaker MMS-32S 1.6-2.5A	750 [W]
	32510401	Motor circuit breaker MMS-32S 2.5-4.0A	1500 [W]
	32510631	Motor circuit breaker MMS-32S 4.0-6.0A	2200 [W]
	32510800	Motor circuit breaker MMS-32S 5.0-8.0A	3000 [W]
	32511001	Motor circuit breaker MMS-32S 6.0-10.0A	4000 [W]

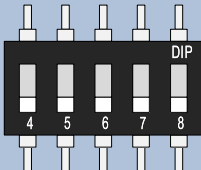
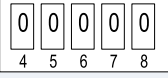
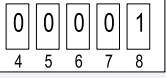
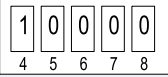
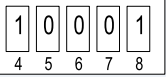
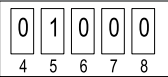
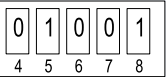
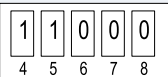
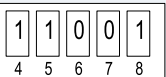
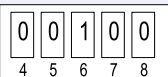
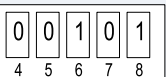
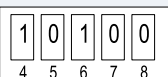
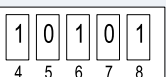
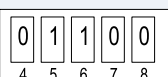
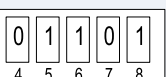








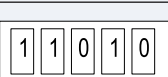
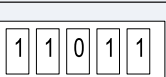


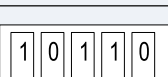
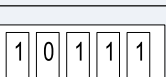
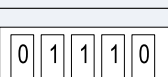
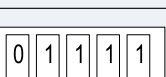


Procedure [1] - Adressing Smartswitches within the BUS-system

1	Set the section number for all Smartswitches within the BUS-system.
A	The section number is digitally composed with DIP-switches [1..3], of which DIP-switch [1] is the [Least Significant Bit], and DIP-switch [3] is the [Most Significant Bit].
1	Set the sequence number for all Smartswitches within the BUS-system.
B	The Smartswitch sequence number is digitally composed with DIP-switches [4..8], of which DIP-switch [4] is the [Least Significant Bit], and DIP-switch [8] is the [Most Significant Bit].
1	Remarks
	The address of a Smartswitch; DIP-switches [1..8] has to be unique within the BUS-system.
C	A Smartswitch of type [20800400 Smartswitch 24-5103b[00]_0 Alarm + meteo] allways needs to be present within a BUS-system. This Smartswitch allways needs to be addressed as [000 00000].

Section number - DIP-switch [1..3]

	Section 1		Section 5	
	Section 2		Section 6	
	Section 3		Section 7	
	Section 4		Section 8	

Smartswitch sequence number - DIP-switch [4..8]

	00		16	
	01		17	
	02		18	
	03		19	
	04		20	
	05		21	
	06		22	
	07		23	
	08		24	
	09		25	
	10		26	
	11		27	
	12		28	
	13		29	
	14		30	
	15		31	

Procedure [2] - Connecting cabinets within the BUS-system

2	General specifications RS485 network
A	Cabinets in the network are connected in series.
	Stubs of the transmission line are not allowed.
	The [A] and [B] signals are transmitted over a twisted-pair.
	The [SGND] (Signal Ground) of the different cabinets are connected to one another over one wire of a twisted pair.
	The [SGND] in a cabinet is connected to [PE] of that cabinet.
	The [SH] (Cable Shield) is ONLY connected to [PE] in the controller cabinet.
	The cable shields of incoming and outgoing BUS-cables in Smartswitch cabinets are spliced together and are NOT connected to [PE].
	Both the outer ends of the network have to be terminated with a 120 [Ohm] resistor.
	The maximum length of the RS485 BUS-cable in the installation is 1200 [m]. This length only applies when a suitable RS485 Bus-cable type is utilized in the installation.
	General specification for RS485 BUS-cable: • Suitable for bus systems based on RS485, • Twisted pair (s), • Shielded, • Characteristic impedance 120 [Ohm].
Recommended cable types: 32002810 Buskabel UNITRONIC BUS LD 2x2x0.22 100 [m] 32002811 Buskabel UNITRONIC BUS LD 2x2x0.22 300 [m] 32002812 Buskabel UNITRONIC BUS LD 2x2x0.22 500 [m] 32002820 Buskabel UNITRONIC BUS LD 3x2x0.22 100 [m]	

Procedure [2] - Connecting cabinets within the BUS-system - Continued

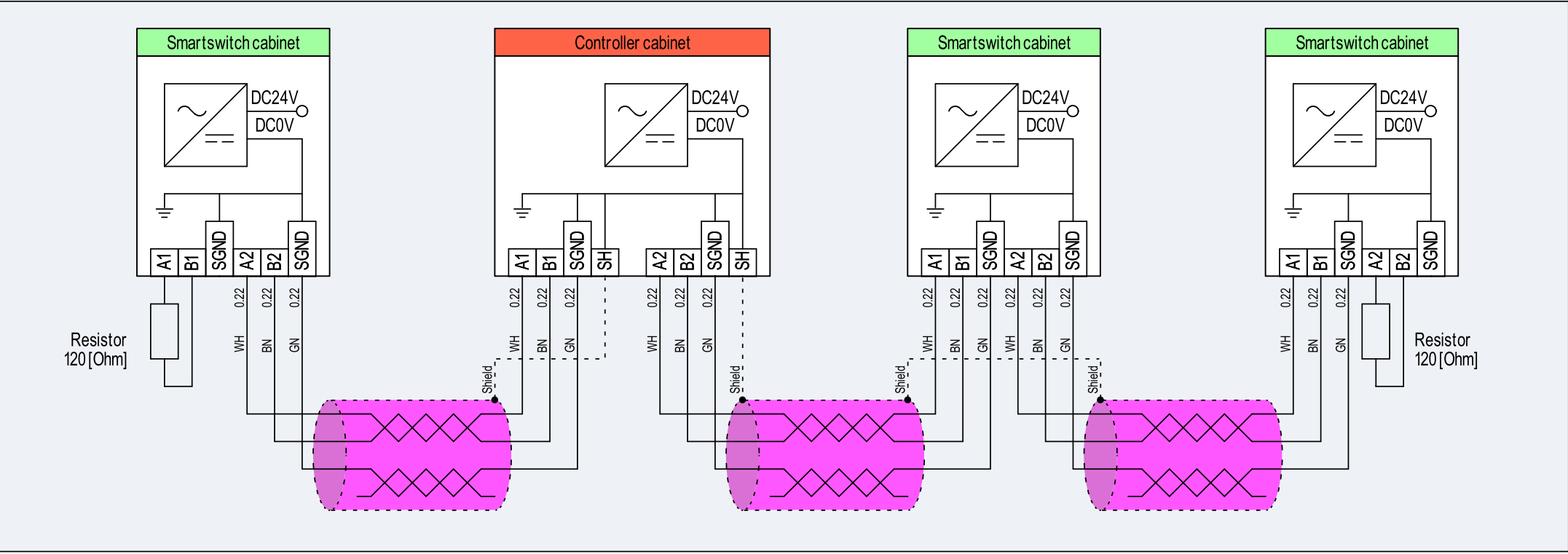
2	Connecting outgoing BUS-cable to Smartswitch cabinet
E	Remove resistor [R2] currently connected to terminals [A2] an [B2].
	Connect twisted pair [1] wire [WH] to terminal [A2].
	Connect twisted pair [1] wire [BN] to terminal [B2].
	Connect twisted pair [2] wire [GN] to terminal [SGND].
	Splice the cable shield of the outgoing BUS-cable together with the cable shield of the incoming BUS-cable (when present) using a splice connector. When there is no incoming BUS-cable then isolate the shield of the outgoing BUS-cable, and leave it unconnected. A BUS-cable shield should only be connected to GND at ONE outer end of that cable; in the Controller cabinet.
When there is no outgoing BUS-cable then leave resistor [R2] in place, connected to terminals [A2] and [B2].	

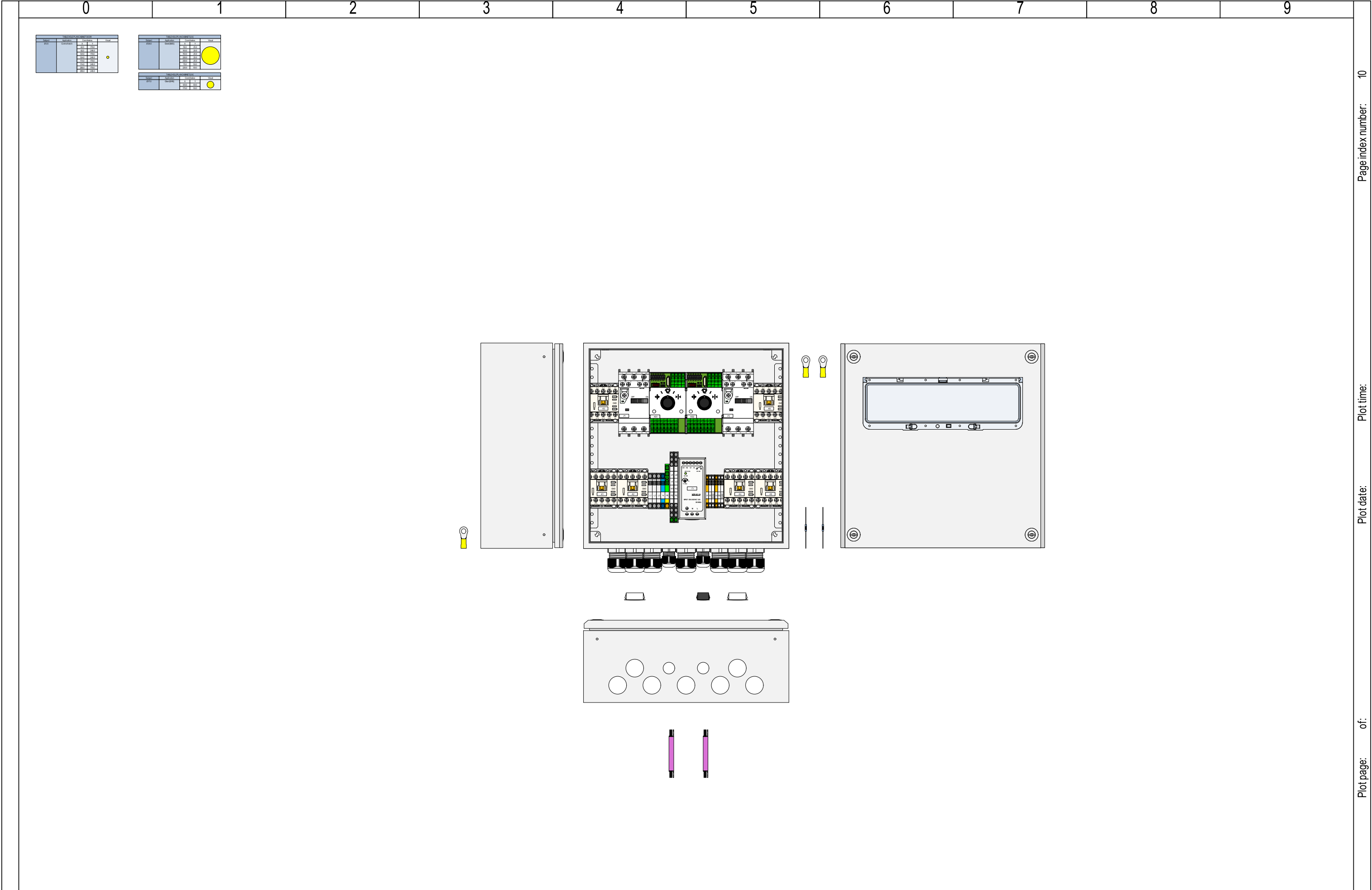
2	Connecting incoming BUS-cable to Controller cabinet
B	Remove Resistor [R1] currently connected to terminals [A1] and [B1].
	Connect twisted pair [1] wire [WH] to terminal [A1].
	Connect twisted pair [1] wire [BN] to terminal [B1].
	Connect twisted pair [2] wire [GN] to terminal [SGND].
	Connect cable shield to terminal [SH].
	When there is no incoming BUS-cable then leave resistor [R1] in place, connected to terminals [A1] and [B1].

2	Connecting outgoing BUS-cable to Controller cabinet
C	Remove resistor [R2] currently connected to terminals [A2] an [B2].
	Connect twisted pair [1] wire [WH] to terminal [A2].
	Connect twisted pair [1] wire [BN] to terminal [B2].
	Connect twisted pair [2] wire [GN] to terminal [SGND].
	Connect cable shield to terminal [SH].
	When there is no outgoing BUS-cable then leave resistor [R2] in place, connected to terminals [A2] and [B2].

2	Connecting incoming BUS-cable to Smartswitch cabinet
D	Remove Resistor [R1] currently connected to terminals [A1] and [B1].
	Connect twisted pair [1] wire [WH] to terminal [A1].
	Connect twisted pair [1] wire [BN] to terminal [B1].
	Connect twisted pair [2] wire [GN] to terminal [SGND].
	Splice the cable shield of the incoming BUS-cable together with the cable shield of the outgoing BUS-cable (when present) using a splice connector. When there is no outgoing BUS-cable then isolate the shield of the incoming BUS-cable, and leave it unconnected. A BUS-cable shield should only be connected to GND at ONE outer end of that cable; in the Controller cabinet.
	When there is no incoming BUS-cable then leave resistor [R1] in place, connected to terminals [A1] and [B1].

Network topology





Project file: 20820001EAS020 Cabinet motor open_close control [02] 1.6A SSWESR [3P400V+N+PE_50Hz]			Page initial date: 01/01/2024	Symbol scale: 1:5	Page: 10
Project number:	Function (=): =Unit	Project initial date: 01/01/2024	Page designed by: MBL	Drawing scale: 1:5	of: 10
URL: http://www.Ridder.com	Location (+): +Main cabinet	Project designed by: MBL	Page revision date:		Page index:
Document number: 20820001EAS020	Product (-): -Cabinet layout	Project status: [As Build]	Page revision:		