



WAGO Kontakttechnik GmbH & Co. KG

Project name: WAGO - Lighting Management min. modification
Project number: CS_DE_008188_17
Drawing number: CS_DE_008188_17_CD_AC_V2 LM min.
Name: AC_V2_LM_min
Part number: 8008-0100/1000-0001

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Technical information:

Miscellaneous

Brand: WAGO
 Type: Automation Cabinet
 Measurements w/h/d: 440 x 480 mm
 Degree of protection: IP20
 Protection class: I
 Installation type: mounting in enclosure
 Door hinge: without
 Cable routing: above / below
 Ambient air temperature: 0 °C bis 55 °C
 Relative humidity: 5 - 95 %
 (moisture condensation and direct sun heat inadmissible)
 Special service conditions
 -

Year of construction 2016

Applied norms

Switchgear and controlgear assembly
 IEC 61439-1 - General rules
 IEC 61439-2 - Power switchgear and controlgear assemblies (PSC)
 IEC 61439-3 - Distribution boards intended to be operated by ordinary persons (DBO)
 Boxes and enclosures for electrical accessories: IEC 60670-1

Miscellaneous

Network configuration: TN-S/TT (separated neutral conductors and protective conductors within the entire system)
 Rated voltage (Un): Y / Δ 230 VAC / 400 VAC
 Rated operational voltage (Ue): 230 VAC / 24 VDC
 Rated insulation voltage (Ui): ≥Ue
 Rated impulse withstand voltage (UImp): 4kV (ÜSK III)
 Rated current (In): 16A
 Rated current of a circuit (Inc): please refer to circuit plan
 Rated peak withstand current (Ipk): The switchgear and controlgear assembly is designated for electronic installations with either a prospective short-circuit current not rising above 10 kA or a protection by current limiting protective devices with a maximum switch-off current of 17 kA.
 Rated diversity factor (RDF): 0,9
 Rated frequency (fn): 50 Hz
 Electromagnetic compatibility (EMC): Environment A
 This product is appropriate for environment A. Unwanted electromagnetic disturbances may be caused in environment B; in this case, the user can be obliged to take the appropriate steps.

Technical information:

Conductor colours according to EN 60204-1 (DIN IEC60757)

Load circuits

External conductor	black	BK
Neutral conductor N	blue	BU
Protective earth conductor PE	green-yellow	GNYE

Control power:

230VAC (L)	red	RD
230VAC (N)	red/-white	RDWH
24VAC	brown	BN
0VAC	brown/-white	BNWH
24VDC	dark blue	DKBU
0VDC	dark blue/-white	DKBUWH

External voltage	orange	OG
Analog-/measurement signal	white	WT
DALI	violet	VT
Serial interface RS232/485	grey	GY
SMI	turquoise	TQ
Further bus applications	pink	PK

KNX/LON J-Y(ST)Y 2x2x0.8 mm green

Conductor cross-sections (H05/H07V-K)

Cross-section for at least 125% of the rated current (circuit)

Minimum requirement:

Load circuits 230V/400VAC	min. 1 mm ²
Control power	min. 0.75 mm ²
Signal voltage	min. 1 mm ²
Enclosure grounding	min. 2.5 mm ² (depending on the external conductor)

Details are primarily shown in the diagram!

Hints for switchgear and controlgear combination (SGC):

Electric connection:

The switchgear and controlgear assembly can only be opened, installed, connected, serviced and started up by skilled persons (according to IEC 61439-1 section 3.7.12 respectively DIN VDE 0105 part 100).

Upon connecting the switchgear and controlgear assembly as well as other external field devices, it is essential to comply with the relevant VDE-regulations, the manufacturers' guidelines as well as the local or national regulations.

The switchgear and controlgear assembly is designated to be used for the public low-voltage power supply network. The system voltage has to correspond with the nominal voltage of the switchgear and controlgear assembly and must be within the defined limits for voltage ranges as defined in the VDE-regulations..

In case of a three-phase A.C. current supply, a right rotating field has to be taken care of.

Fusing of the switchgear and controlgear assembly is done on site in consideration of the given nominal current (page 2) and the local or national regulations.

In order to avoid failures, all bus and control cables have to be installed separately from other power supply cables carrying system voltage.

Hints for CE-labelling:

All switching devices and components built into the switchgear and controlgear assembly are CE-labelled, subject to the condition that those devices require this type of labelling. The switching devices and components meet the requirements of the EC-directives regarding low-voltage, switching devices and components as well as electromagnetic compatibility

Circuit diagram:

All switch contacts are shown in a disconnected off-mode.

Starting up:

Before starting-up of the switchgear and controlgear assembly, all terminal and screw connections must be checked for tight fitting and retightened if needed, in accordance with VDE 660..

Motor protection switches, overcurrent relays etc. have to be set to the respective nominal currents and documented

Within the process of starting-up, live cables must be checked in respect of insulation faults and fracture points

If the enclosure needs to be opened after the start-up, it must be disconnected from voltage beforehand.

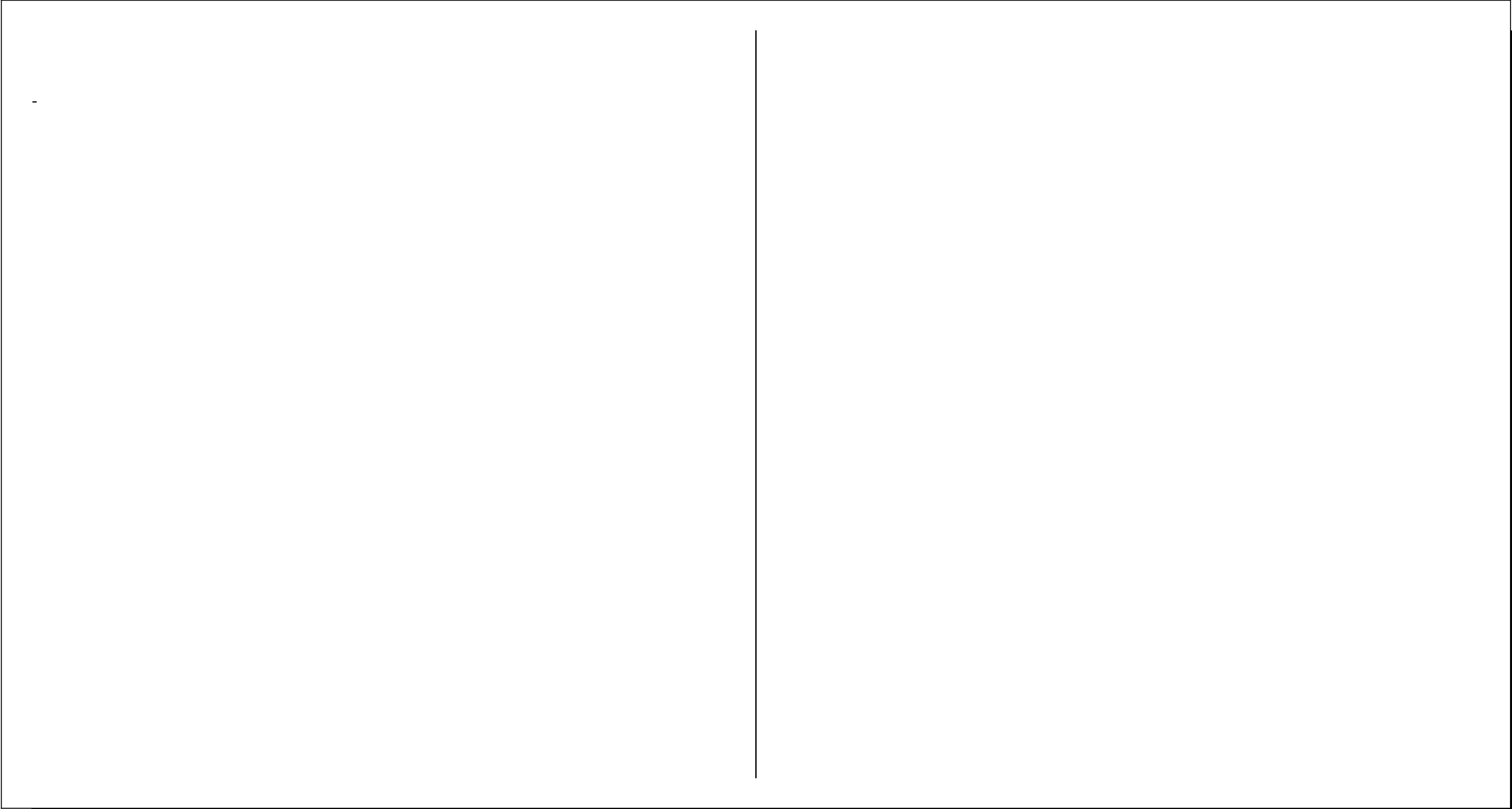
The inspection of cable lengths and cross-sections supplying consumer-, command- and monitoring devices must be performed by the installation company/start-up engineer. (DIN VDE 0100 part 430 and VDE 0298 part 4). The cable cross-sections shown refer to minimum cross-sections without considering external cable lengths. All potentially listed cable cross-sections and cable types should be regarded as suggestions

When starting up, all functions have to be checked as well as documented.

We would like to indicate that after reconstructing or substantially changing the electric installations, an initial testing according to VDE 0100-600 will have to be made, before the user is allowed to conduct a start-up. This initial testing has to be performed by a skilled person being competent to perform such a testing. The initial testing is not part of our performance. We would be more than happy to give you the details of a specialist electric company which can perform the necessary testing for you

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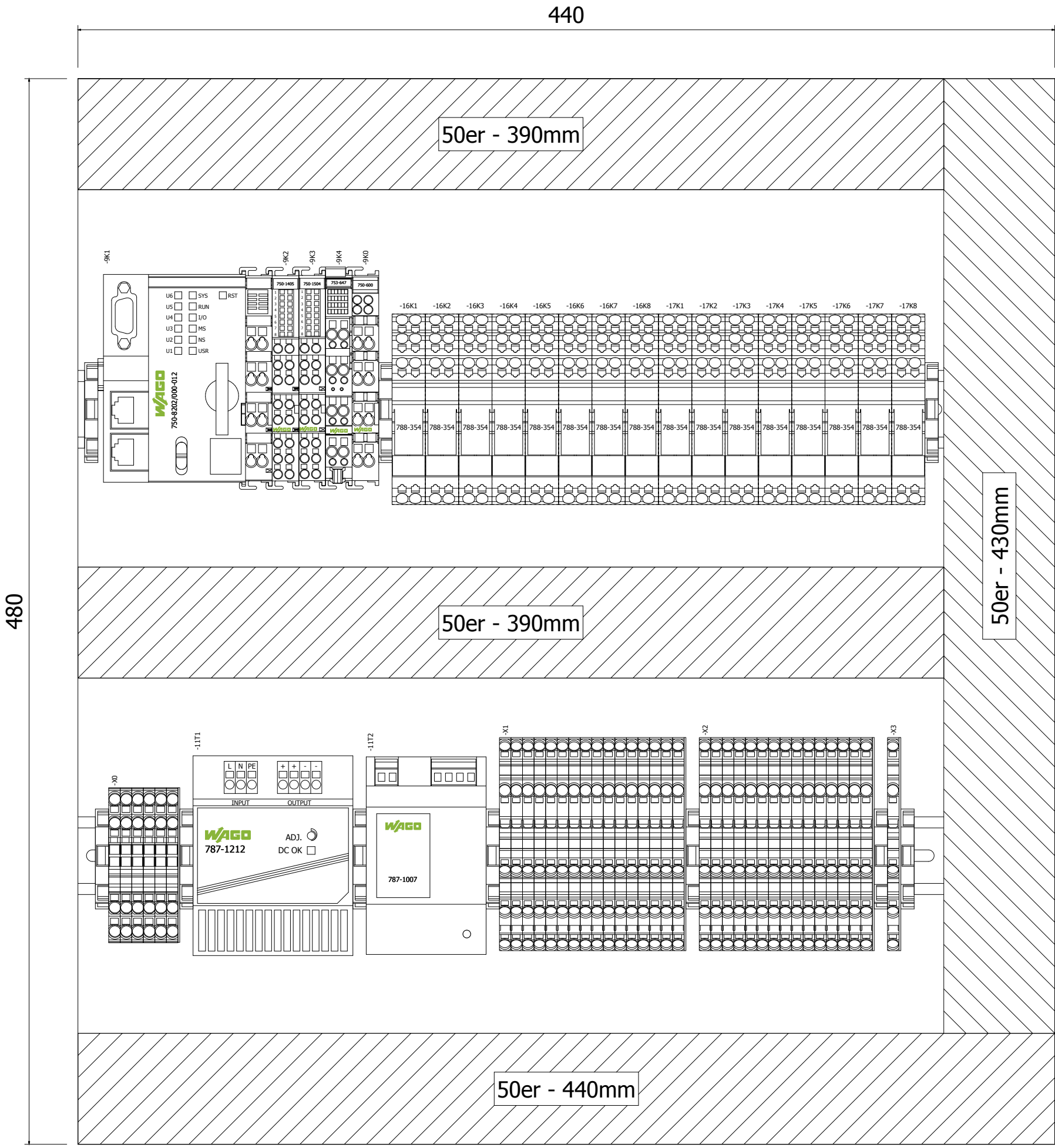
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Production hints

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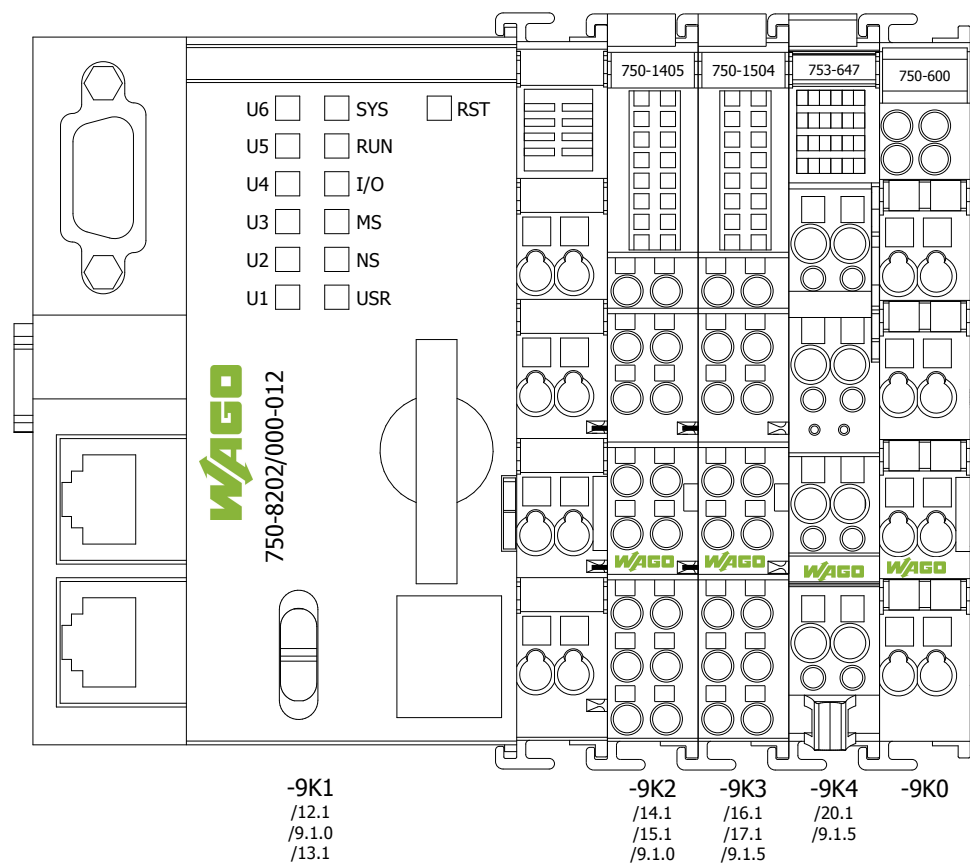
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 Construction

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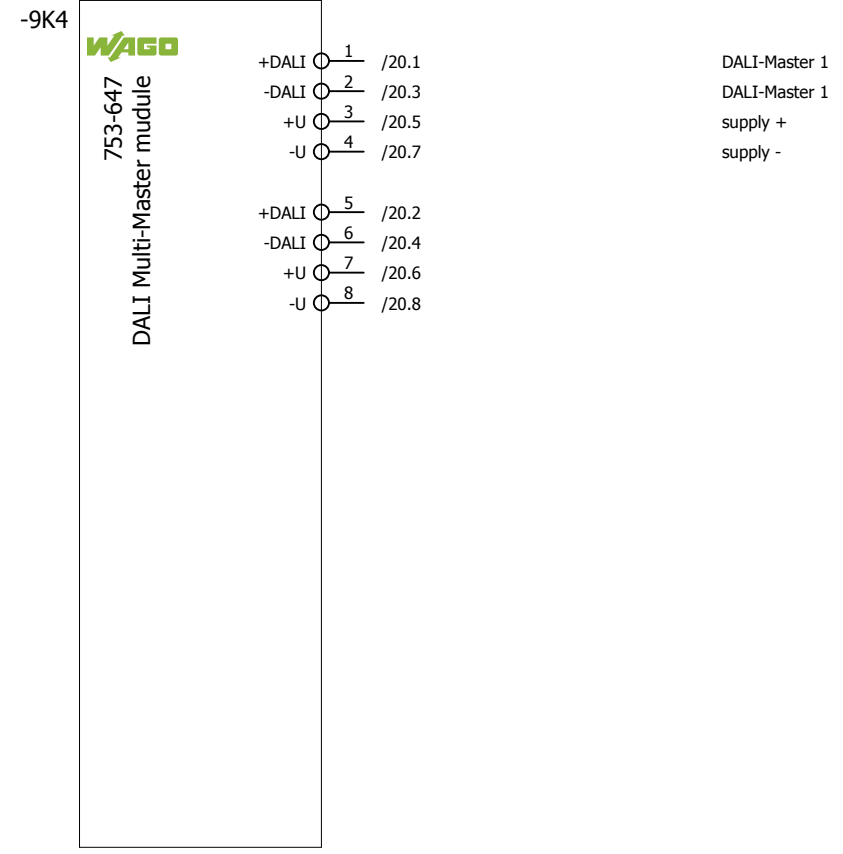
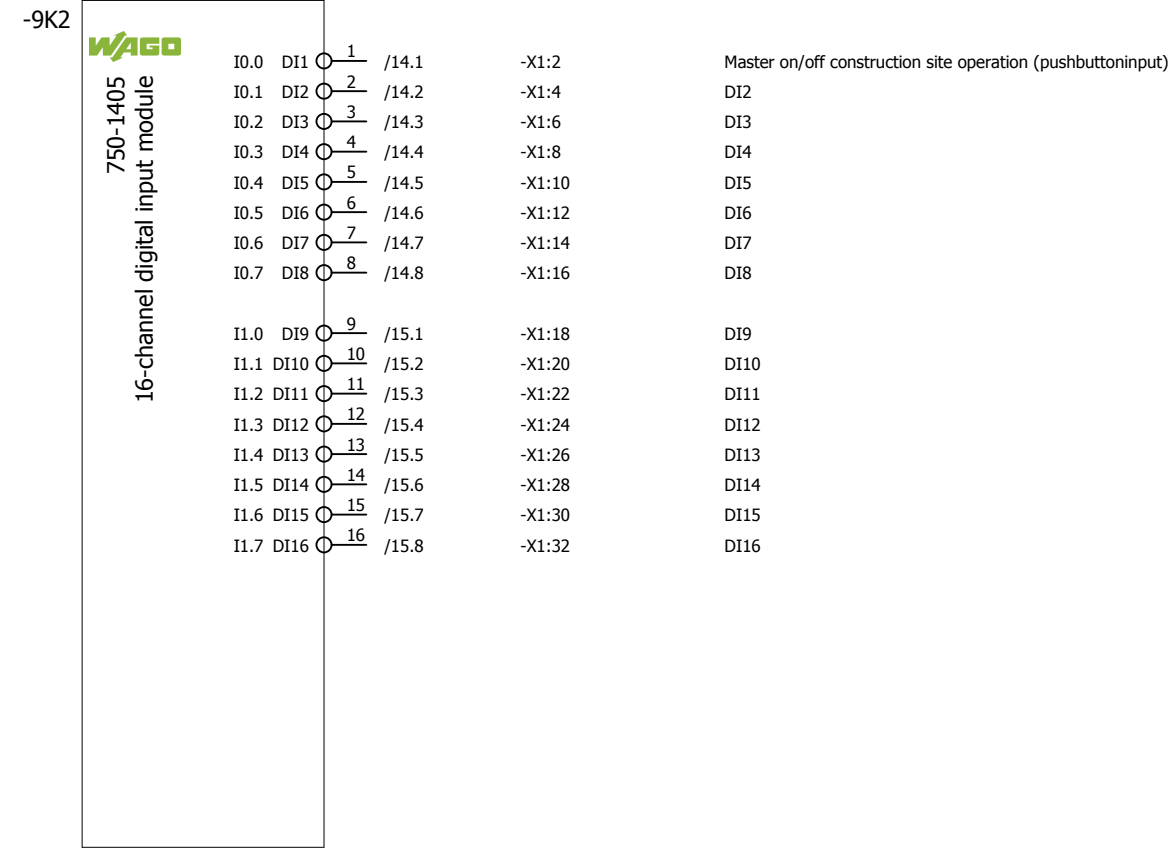
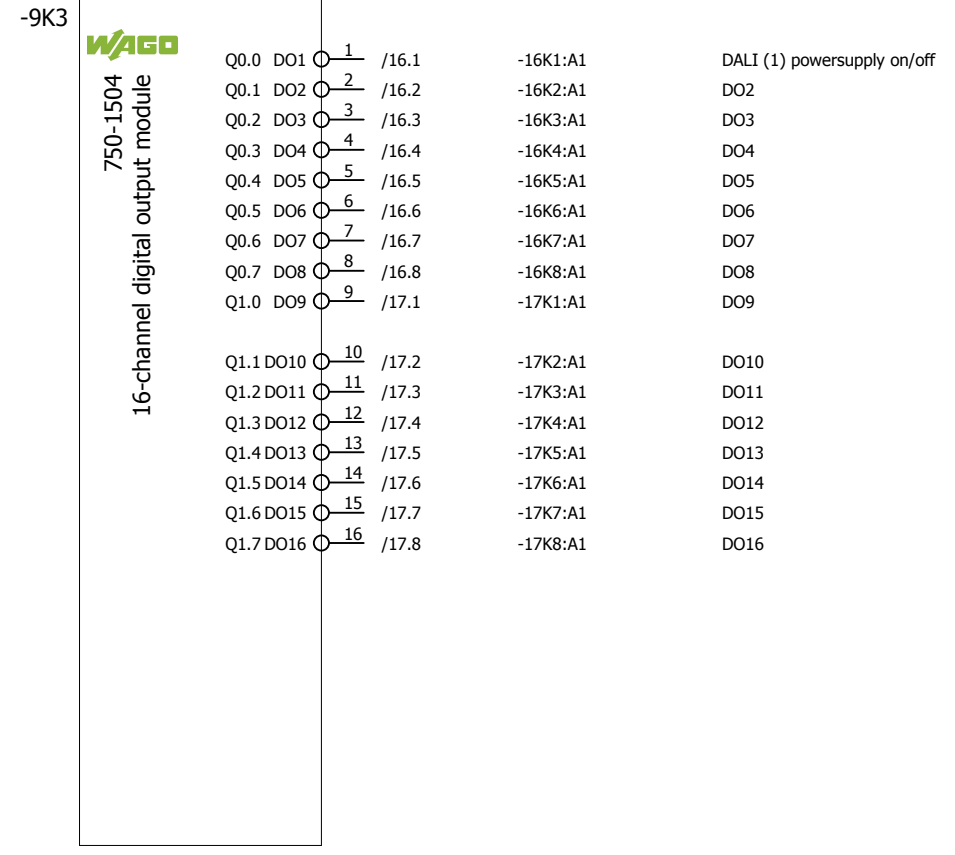
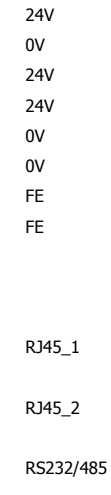
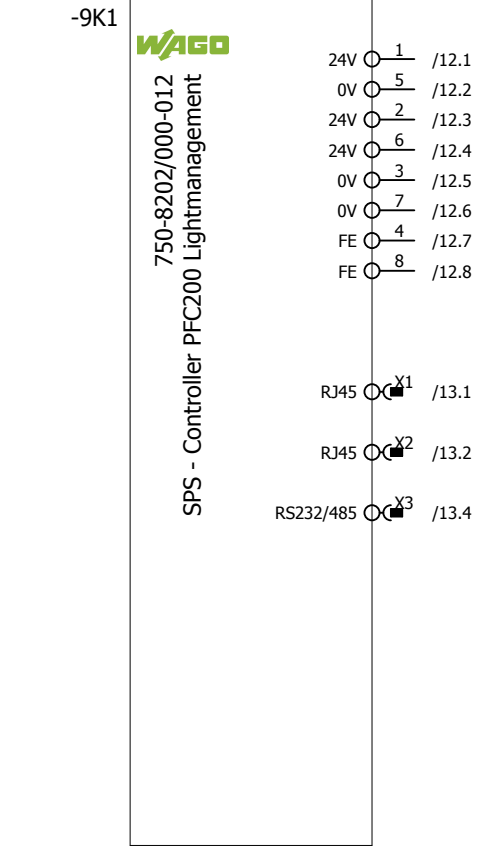
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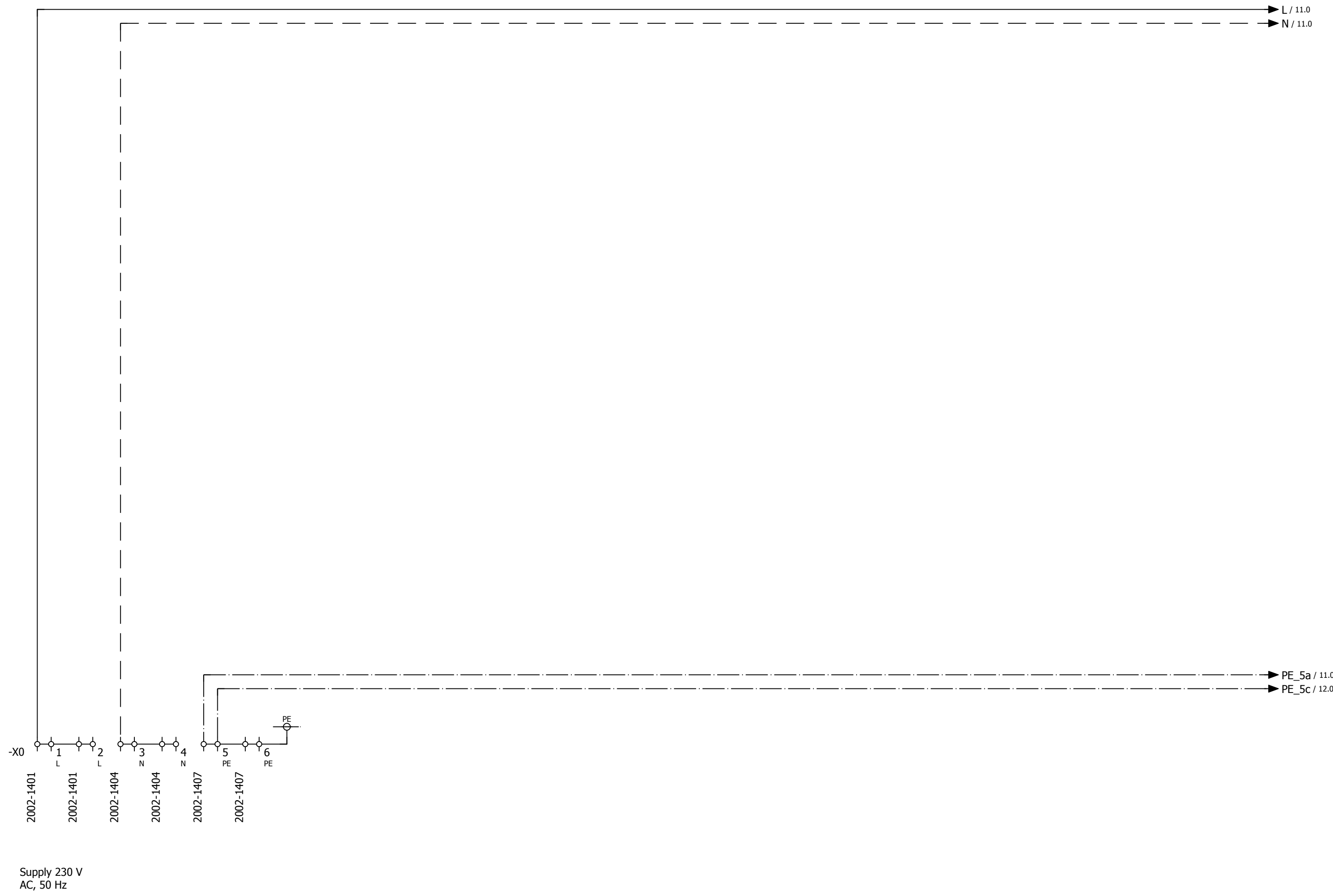
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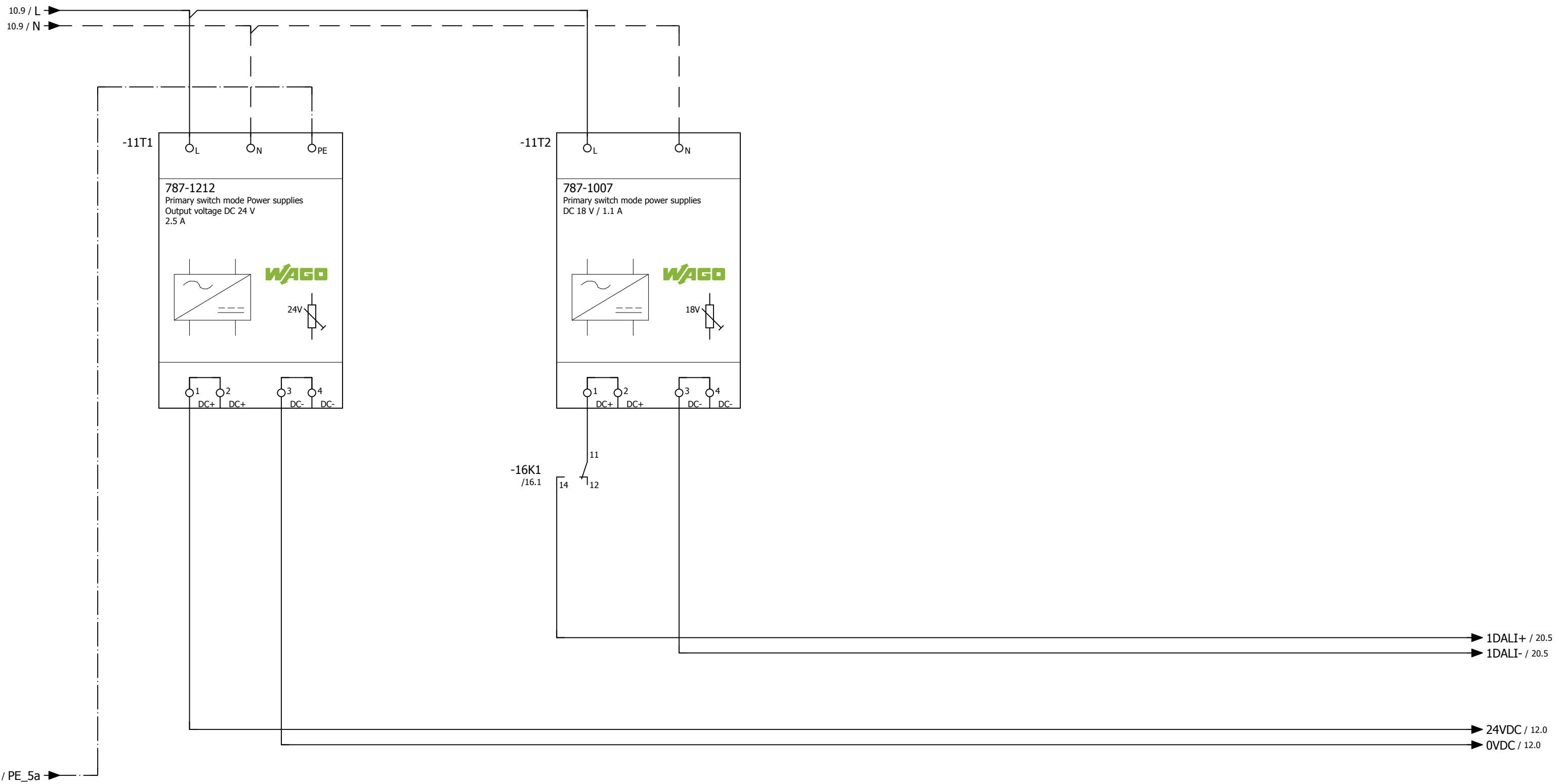
PLC-Overview

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control voltage
24 V DC

DALI control voltage
18 V DC

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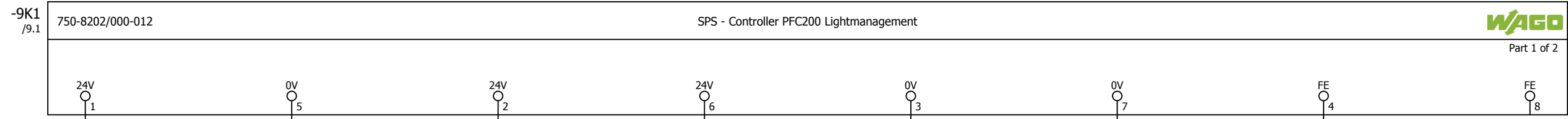
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control voltage 24VDC DALI control voltage 18VDC

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11.9 / -24VDC → -24VDC / 14.0







11.9 / 0VDC → 0VDC / 16.0

10.9 / PE_5c →

24V 0V 24V 24V 0V 0V FE FE

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-9K1
/9.1

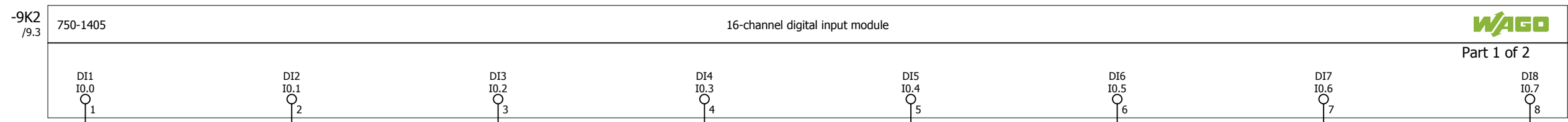
750-8202/000-012	SPS - Controller PFC200 Lightmanagement	 Part 2 of 2
RJ45  X1	RJ45  X2	RS232/485  X3

RJ45_1

RJ45_2

RS232/485

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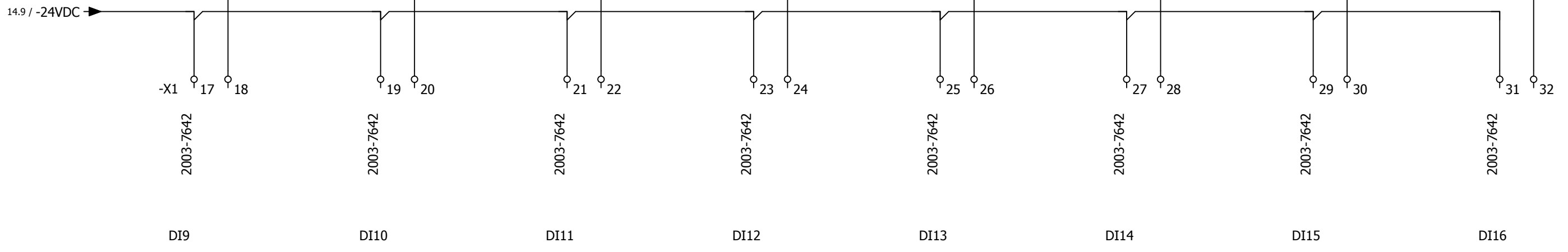
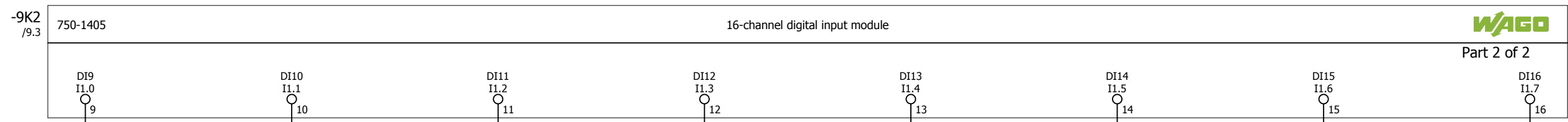


12.9 / -24VDC → -24VDC / 15.0



Master on/off construction site operation (pushbuttoninput) DI2 DI3 DI4 DI5 DI6 DI7 DI8

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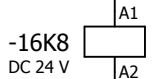
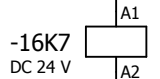
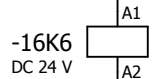
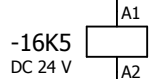
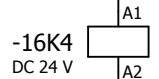
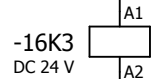
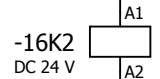
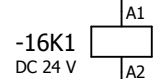
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-9K3
/9.3

750-1504 16-channel digital output module

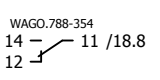
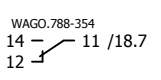
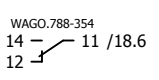
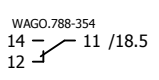
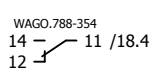
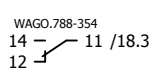
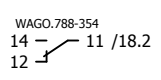
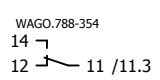


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12.9 / 0VDC

0VDC / 17.0



DALI (1)
powersupply
on/off

DO2

DO3

DO4

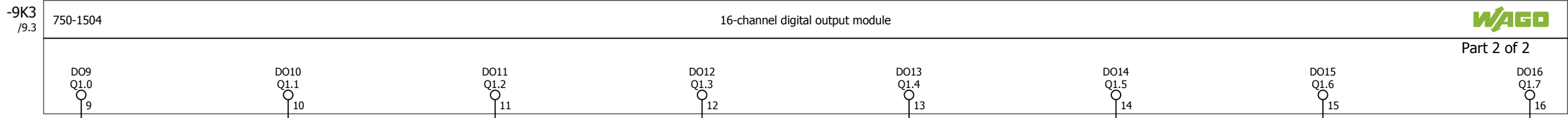
DO5

DO6

DO7

DO8

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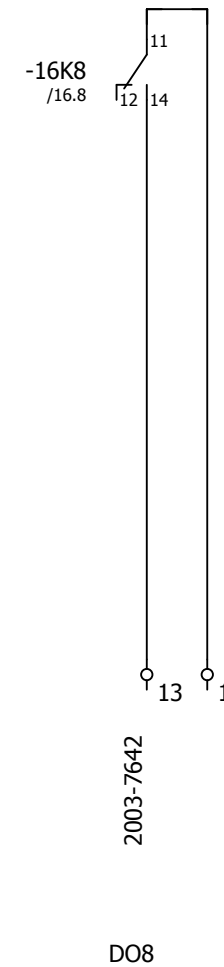
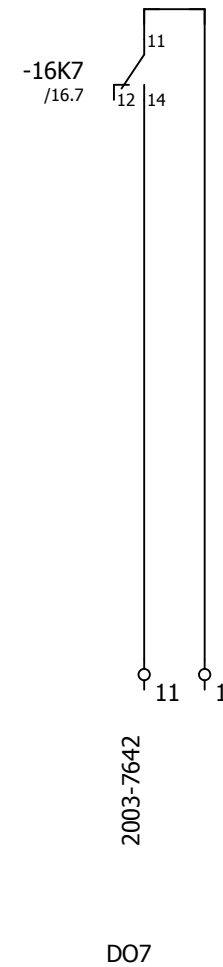
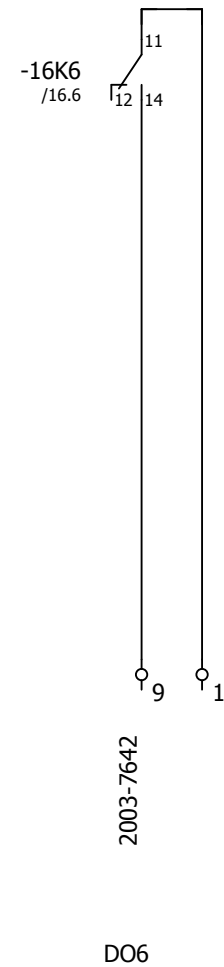
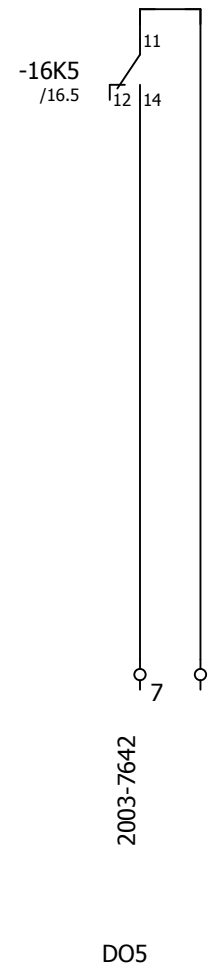
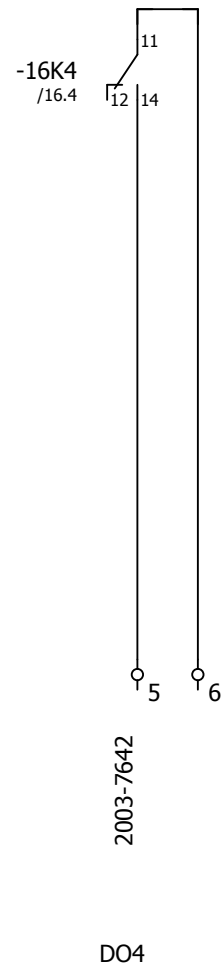
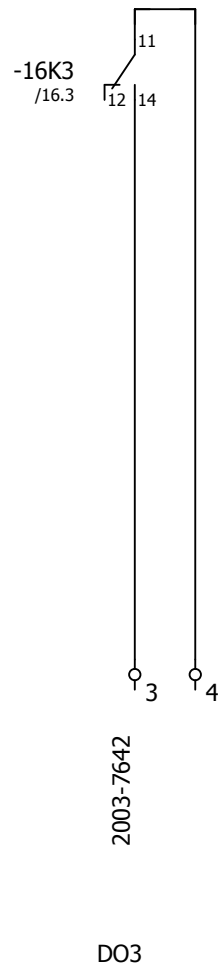
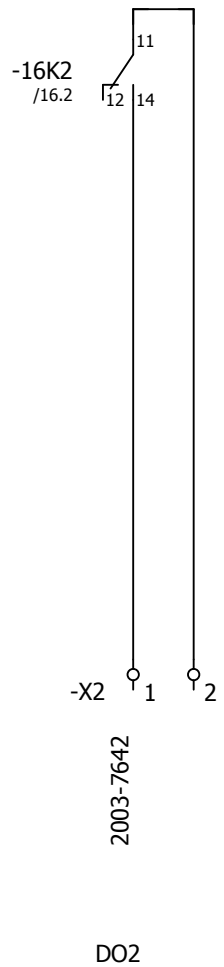
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Part 2 of 2

16.9 / 0VDC →

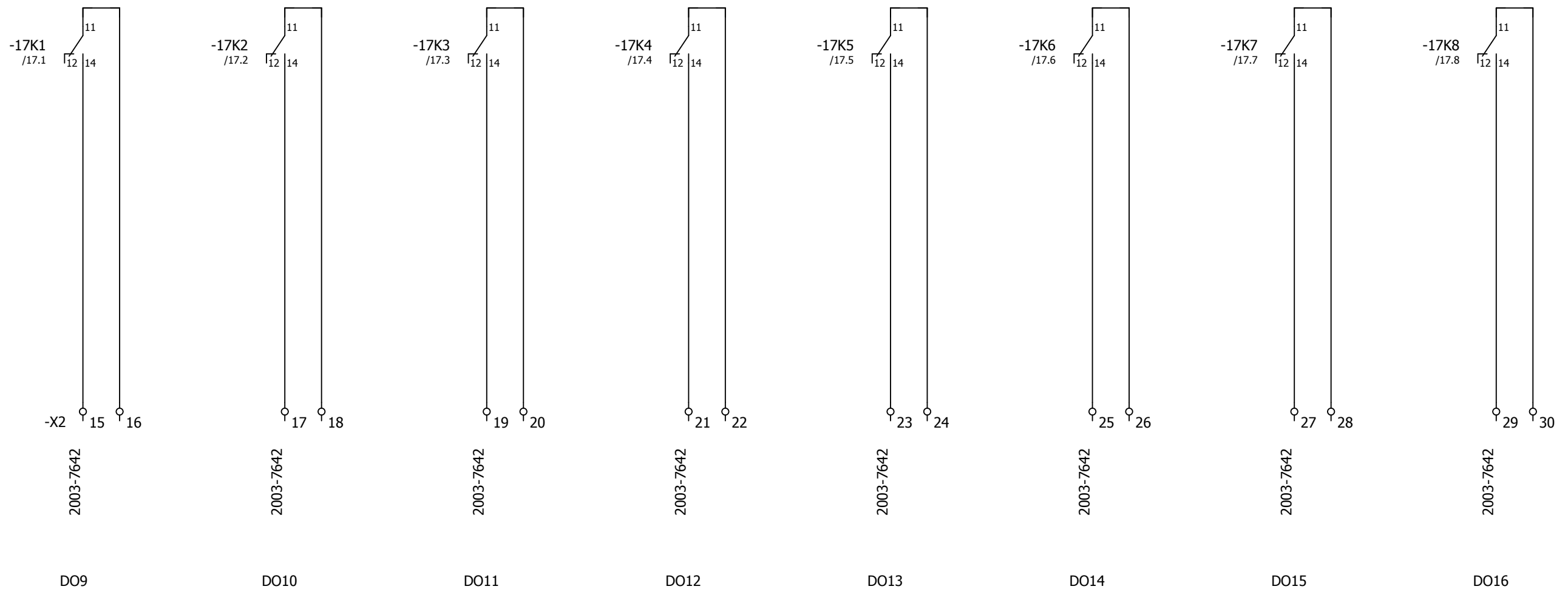


DO9 DO10 DO11 DO12 DO13 DO14 DO15 DO16

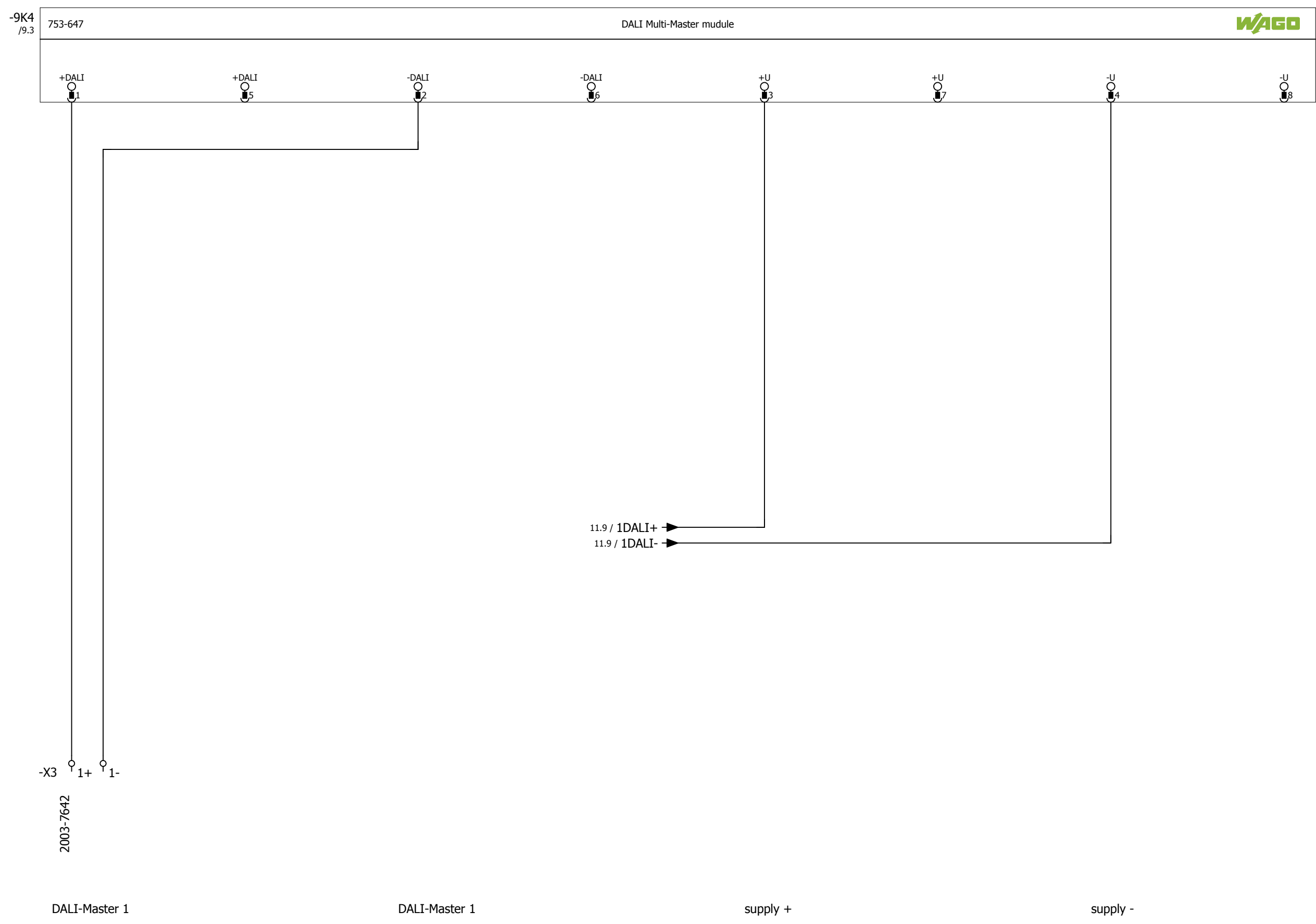
			Date	19.06.2018	WAGO - Lighting Management min. modification		Digital Outputs	distribution label :	= A
			Ed.	Friedrichs				AC_V2_LM_min	+ O
			Appr	Reschke				Project no. : CS_DE_008188_17	Page 17
Modification	Date	Name	Original		Replacement of	Replaced by		Draw. no.: CS_DE_008188_17_CD_AC_V2 LM min.	Page 27



			Date	19.06.2018	WAGO - Lighting Management min. modification		Relay	distribution label :	= A
			Ed.	Friedrichs				AC_V2_LM_min	+ O
			Appr	Reschke				Project no. : CS_DE_008188_17	Page 18
Modification	Date	Name	Original		Replacement of	Replaced by		Draw. no.: CS_DE_008188_17_CD_AC_V2 LM min.	Page 27



			Date	19.06.2018	WAGO - Lighting Management min. modification		Relay	distribution label :	= A
			Ed.	Friedrichs				AC_V2_LM_min	+ O
			Appr	Reschke				Project no. : CS_DE_008188_17	Page 19
Modification	Date	Name	Original		Replacement of	Replaced by		Draw. no.: CS_DE_008188_17_CD_AC_V2 LM min.	Page 27



Date	19.06.2018		
Ed.	Friedrichs		
Appr	Reschke		
Modification	Date	Name	Original

WAGO - Lighting Management min. modification	
Wago	
Replacement of	Replaced by



DALI-Master

distribution label :	= A
AC_V2_LM_min	+ O
Project no. : CS_DE_008188_17	Page 20
Draw. no.: CS_DE_008188_17_CD_AC_V2 LM min.	Page 27

Terminal diagram

Function text	Terminal diagram =A+O-X1 Digital Inputs										Cable name	Cable name	Cable type	Page / column	
	Cable name	Cable type	Target designation	Connection point	Terminal	Jumper	Type of terminal	Target designation	Connection point	Cable type					
Master on/off construction site operation (pushbuttoninput)															/14.1
=															/14.1
DI2															/14.2
=															/14.2
DI3															/14.3
=															/14.3
DI4															/14.4
=															/14.4
DI5															/14.5
=															/14.5
DI6															/14.6
=															/14.6
DI7															/14.7
=															/14.7
DI8															/14.8
=															/14.8
Spare															/15.1
DI9															/15.1
DI10															/15.2
=															/15.2
DI11															/15.3
=															/15.3
DI12															/15.4
=															/15.4
DI13															/15.5
=															/15.5
DI14															/15.6
=															/15.6
DI15															/15.7
=															/15.7
DI16															/15.8
=															/15.8

2

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