SHEET	DESCRIPTION
01	INDEX
02	SPECIFICATIONS
03	POWER CIRCUIT
04	POWER CIRCUIT
05	POWER CIRCUIT
06	CONTROL CIRCUIT
07	REGULATOR MK5S
08	EXPANSION MODULE I05
09	INPUT CONNECTIONS 2X27
10	INPUT CONNECTIONS 2X28
11	INPUT CONNECTIONS 2X30, 2X31
12	INPUT CONNECTIONS 10X33
13	INPUT CONNECTIONS 10X31, 10X35, 10X36
14	INPUT CONNECTIONS 10X32
15	INPUT CONNECTIONS 10X34
16	LEGEND
17	LEGEND
18	LEGEND
19	TERMINAL STRIPS
20	NOTES

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Note	Posi-tion	Modified from	Date	Intr./Appd.	Parent 3D Model	Ed.Version 3D
1			2/18/2022	INEARD		

Name	Service diagram - VDR6350-8450			Secrecy Class	
Material				1102 K/ Confidential	
Treatment				ACD	
nano COMPRESSED AIR DRYER VDR	Scale 1:1	Family	A3	Compare	Drawing owner AIF
	Drawn by	Blank nr.		Replaces	
STATUS	Version Drwg 1	Blank wt. Kg	Fini wt. Kg	Designation	Sheet 01 (20)
RELEASED	Des checked.	Prod checked.	Approved.	Date 12/13/2021	1839007644-01

CUSTOMER'S INSTALLATION

MAIN POWER SUPPLY

VOLTAGE : _____ V

FREQ : _____ Hz 3 PH

MAX. FUSE

IEC: CLASS GL/GG type "2"

_____ A

UL: CLASS K5/RK5

_____ A

NOTES:

Max. fuse with regard to shortcircuit protection of cubicle.
Cable section may impose a fuse of smaller value.

OPTIONS	INSTALLED	DESCRIPTION	AC CODE
1	☐	6 FANS (AIR COOLED)	1900511331 / 1900511332
3	☐	VDR 8450	1900511335

DRYER

1

CONDENSOR FAN MOTORS

M1
____kW
____HP

M21
____kW
____HP

M22
____kW
____HP

F20
____ A

Q1
____ A

Q2
____ A

M23
____kW
____HP

M24
____kW
____HP

Q5
____ A

F6
____ A

F7
____ A

M25
____kW
____HP

M26
____kW
____HP

Q10
____ A

F11
____ A

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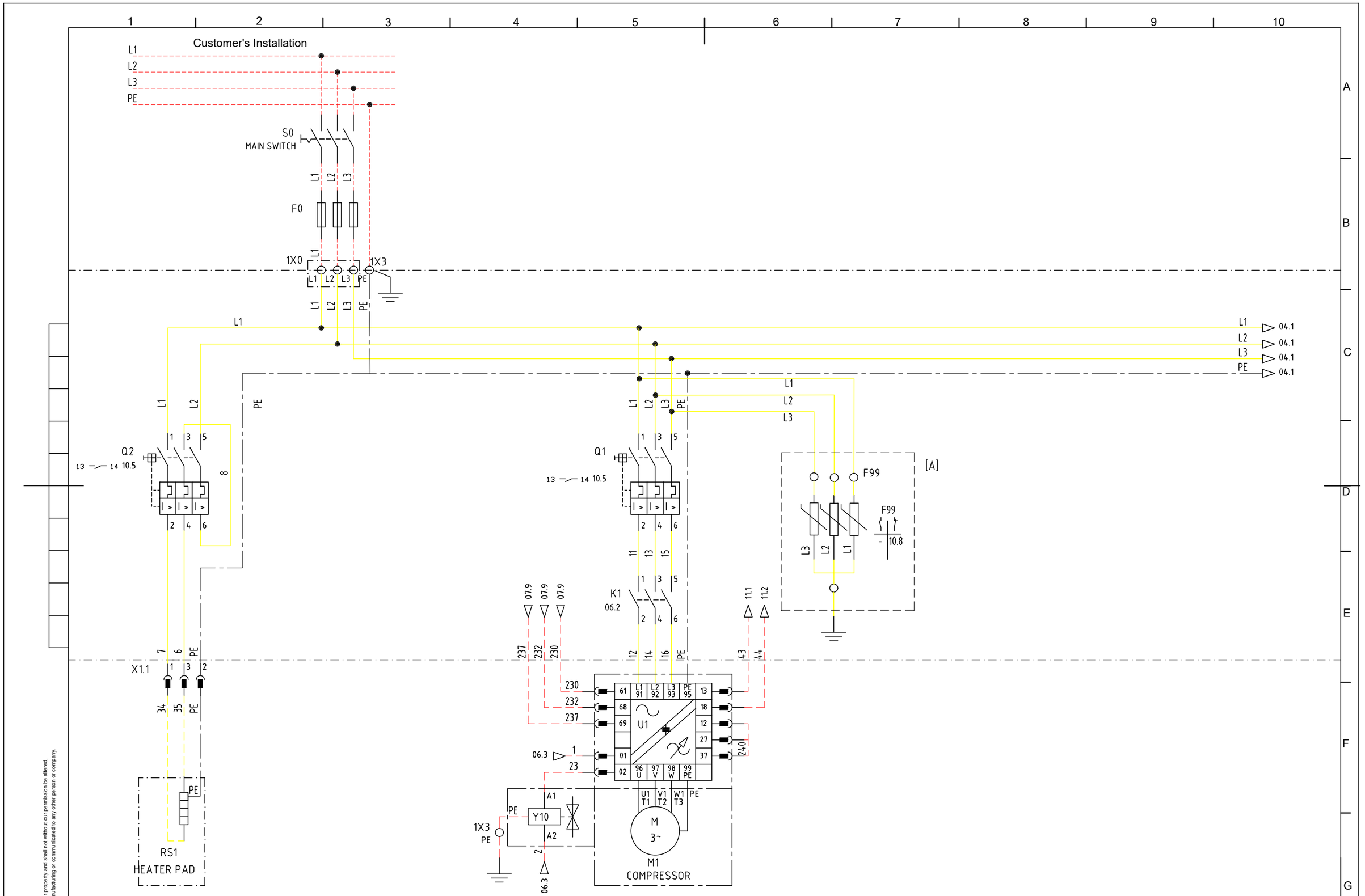
nano COMPRESSED AIR DRYER VDR	ACD Drawing owner AIF	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 01	Next Page 03	A3	Designation 1839007644-01 Sheet 02 (20)
				RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		



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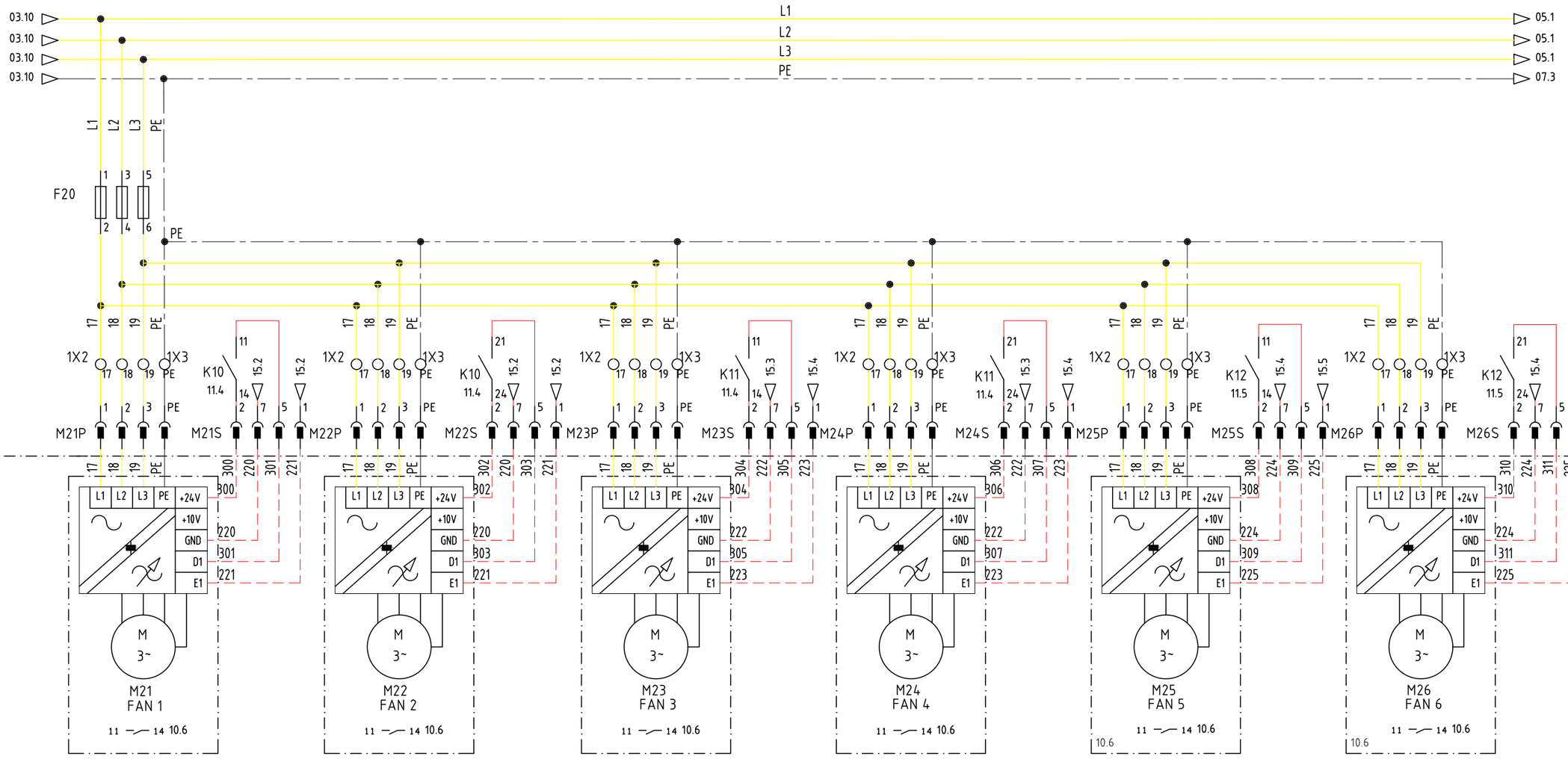
nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 02	Next Page 04	A3	Designation
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		Sheet 03 (20) 1839007644-01

1 CONDENSER FAN MOTORS



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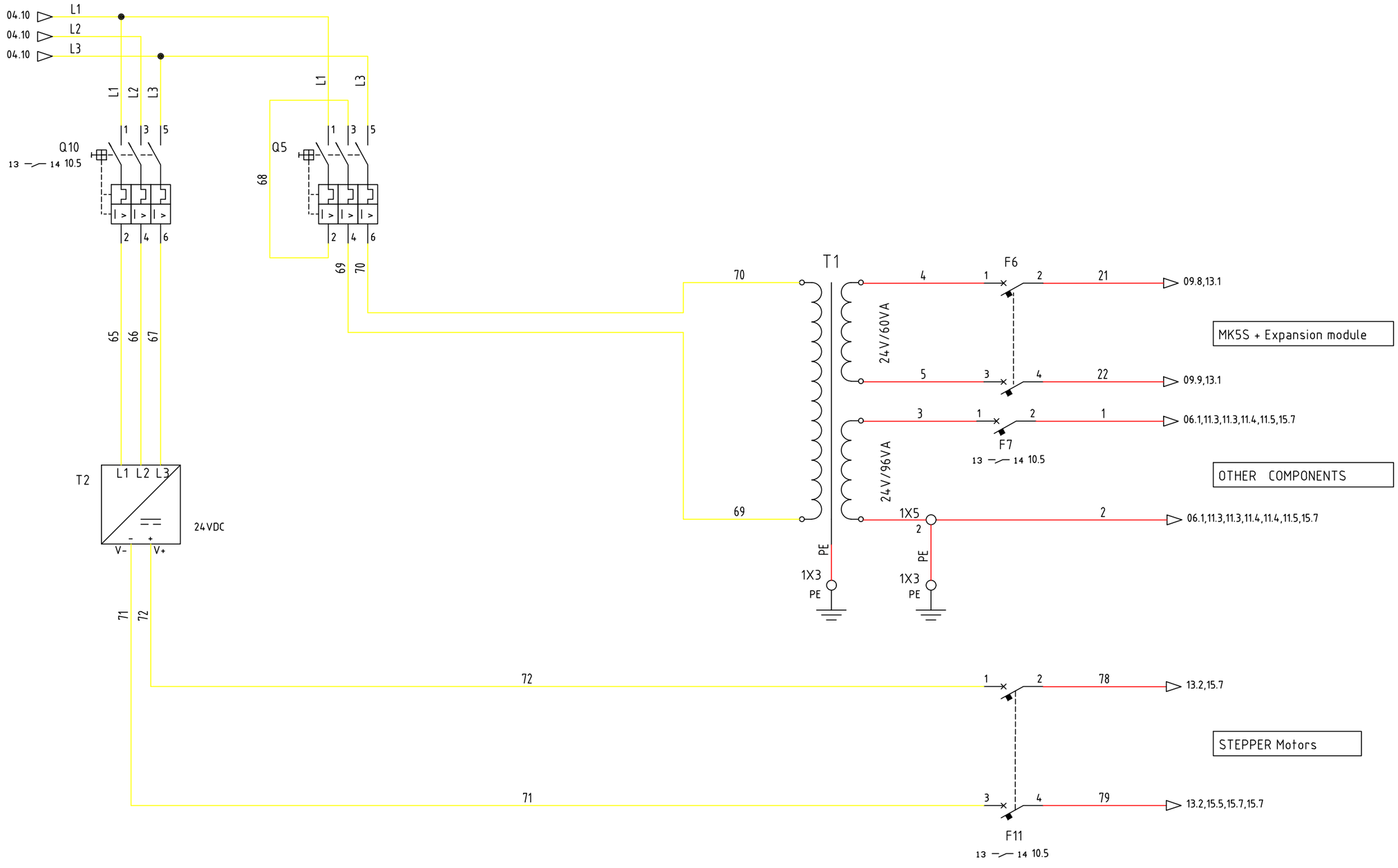
ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 03	Next Page 05	A3	Designation
Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		Sheet 04 (20)
									1839007644-01



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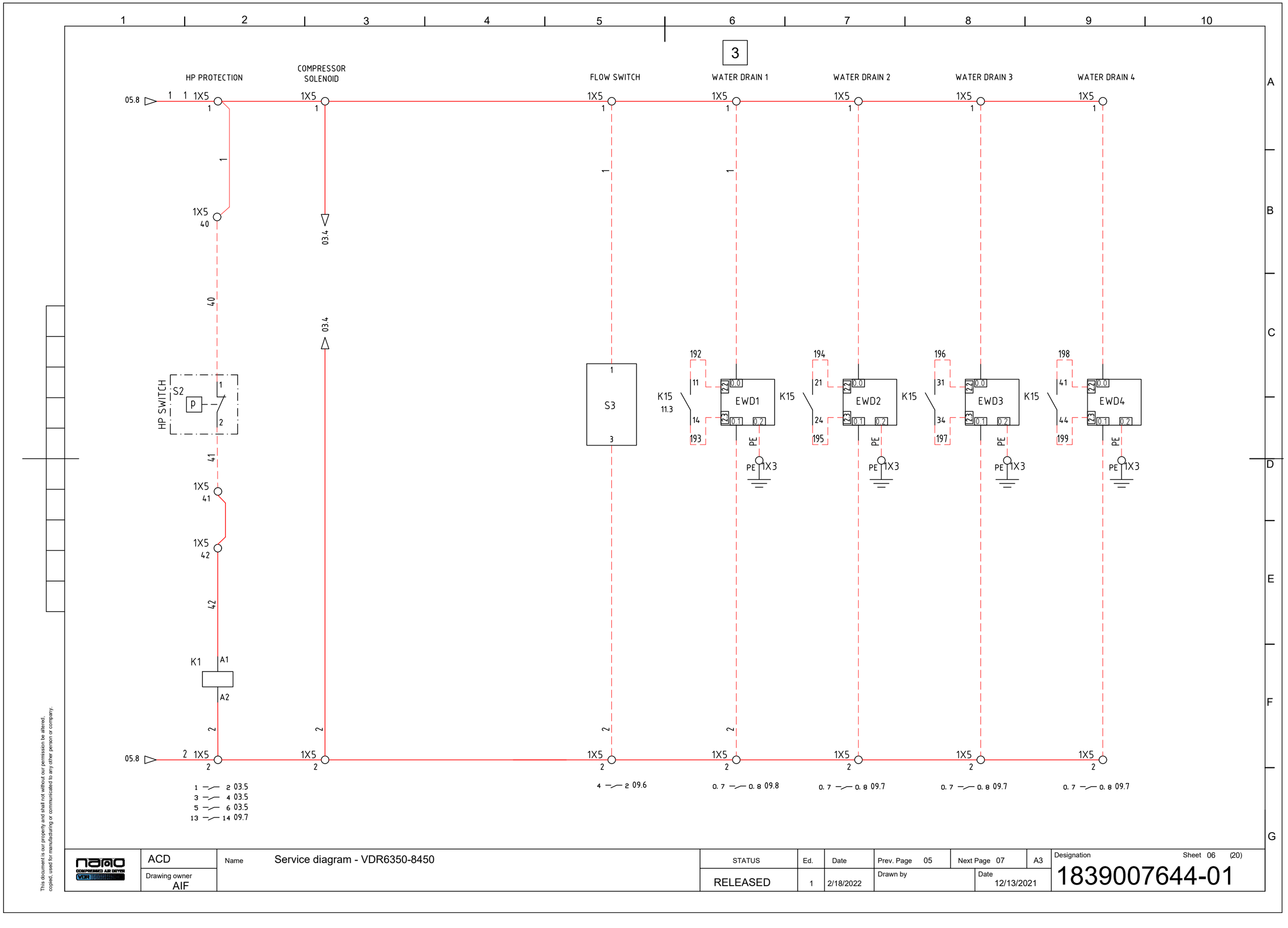
nano COMPRESSED AIR DRYER VDR	ACD Drawing owner AIF	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 04	Next Page 06	A3	Designation 1839007644-01
				RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		Sheet 05 (20)



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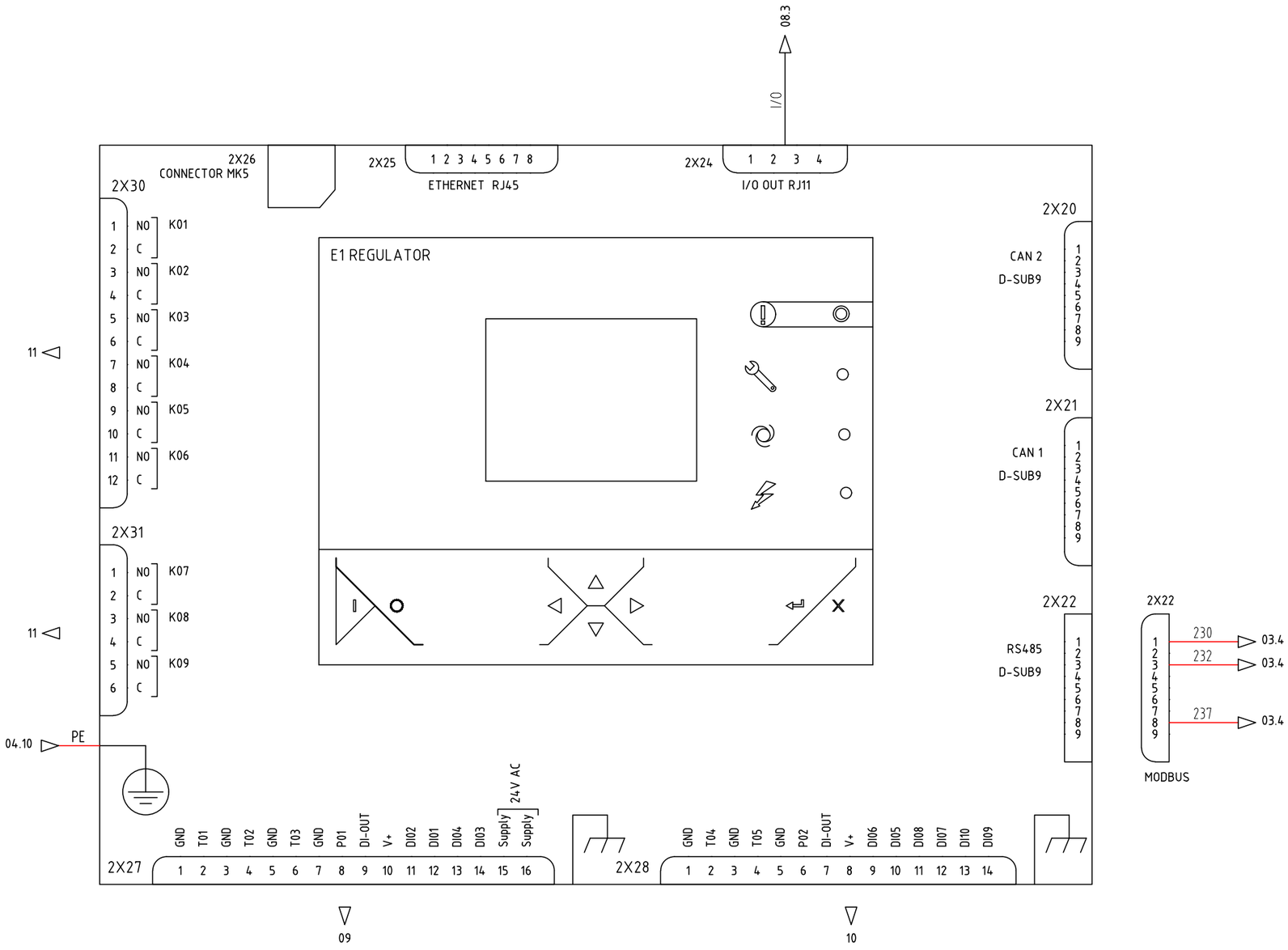
ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 05	Next Page 07	A3	Designation
Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01

Sheet 06 (20)



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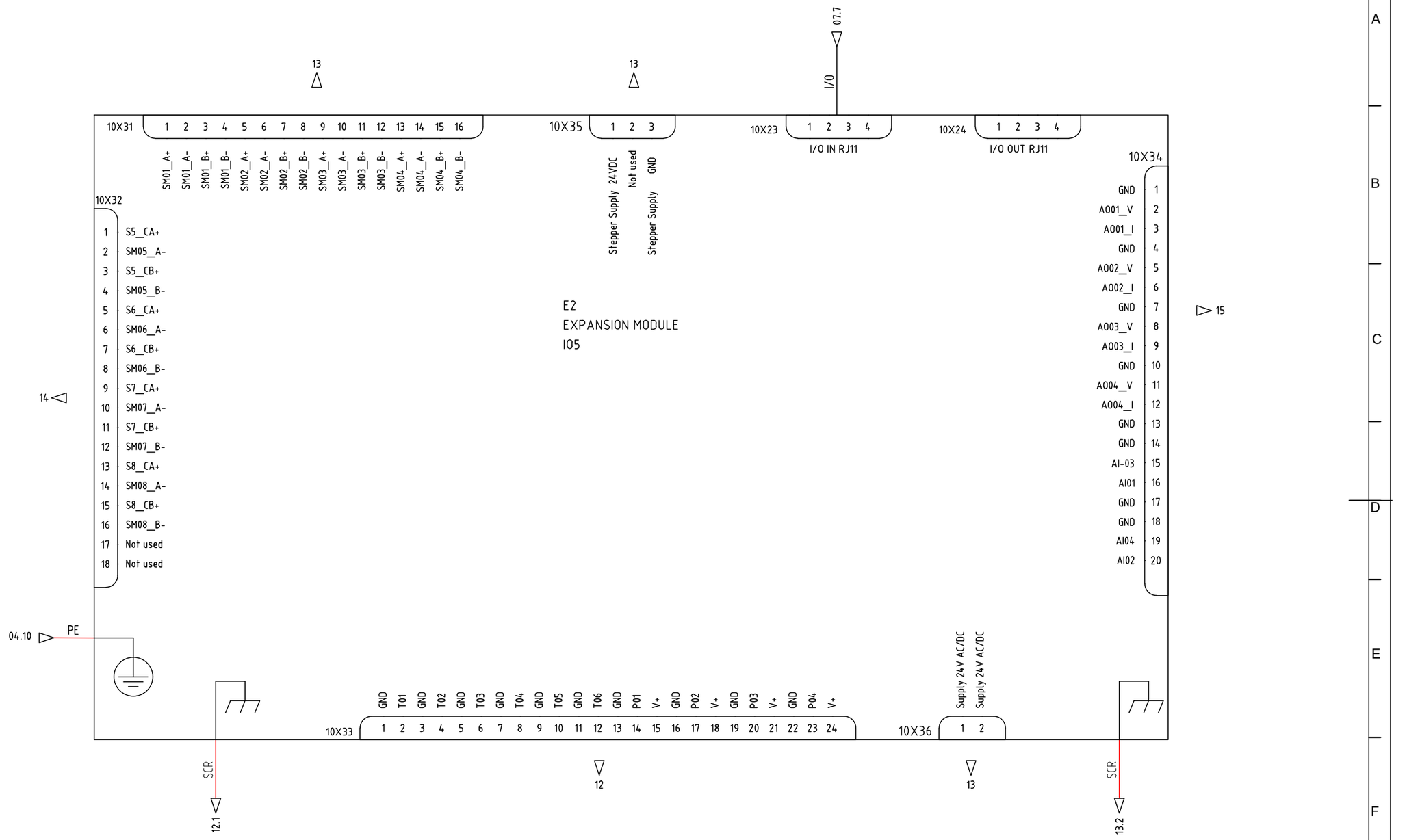
nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 06	Next Page 08	A3
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021	

Designation 1839007644-01

Sheet 07 (20)



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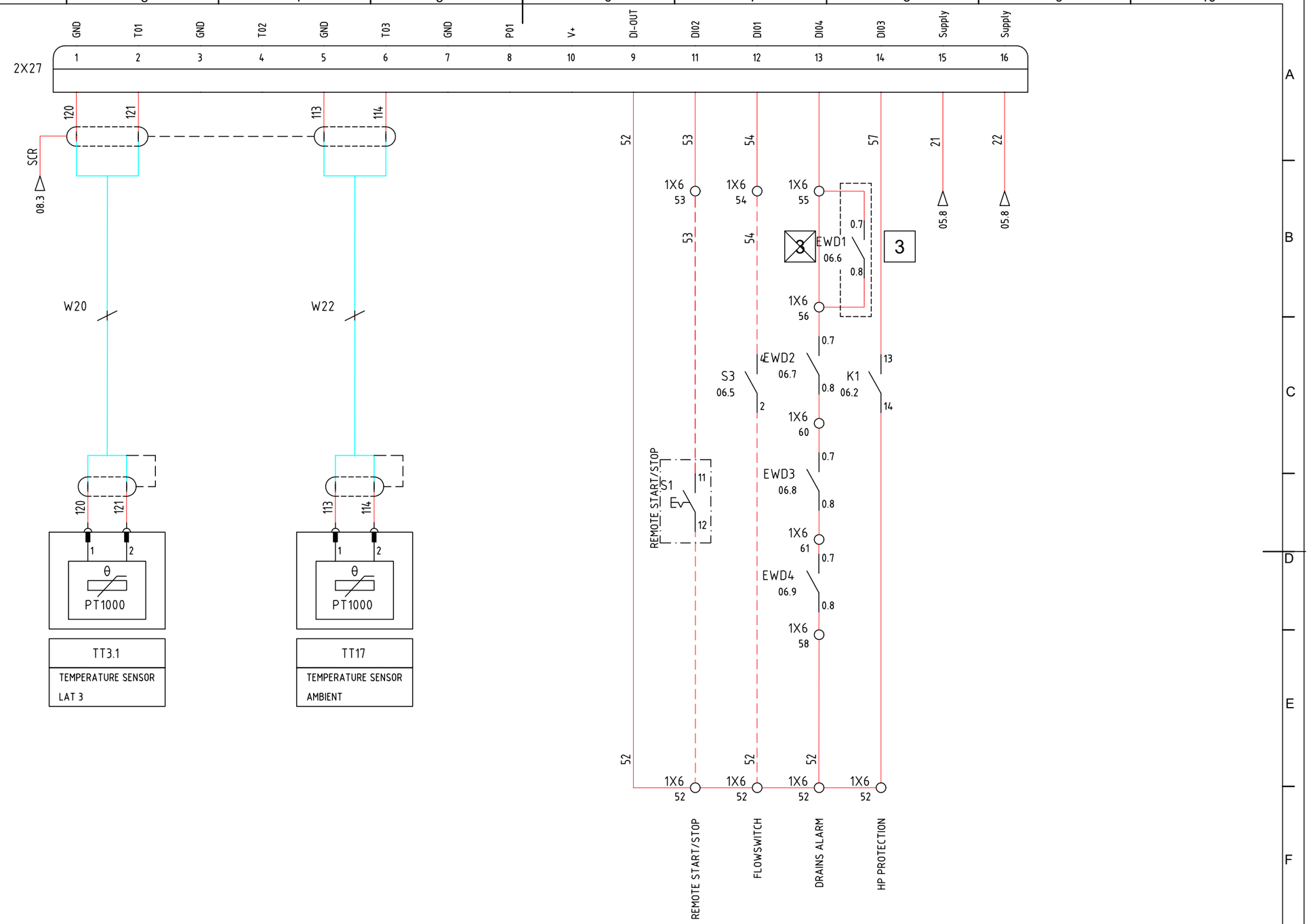
nano COMPRESSED AIR DRYER VDR	ACD Drawing owner AIF	Name Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 06	Next Page 07	A3	Designation 1839007644-01 Sheet 07 (20)
			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		



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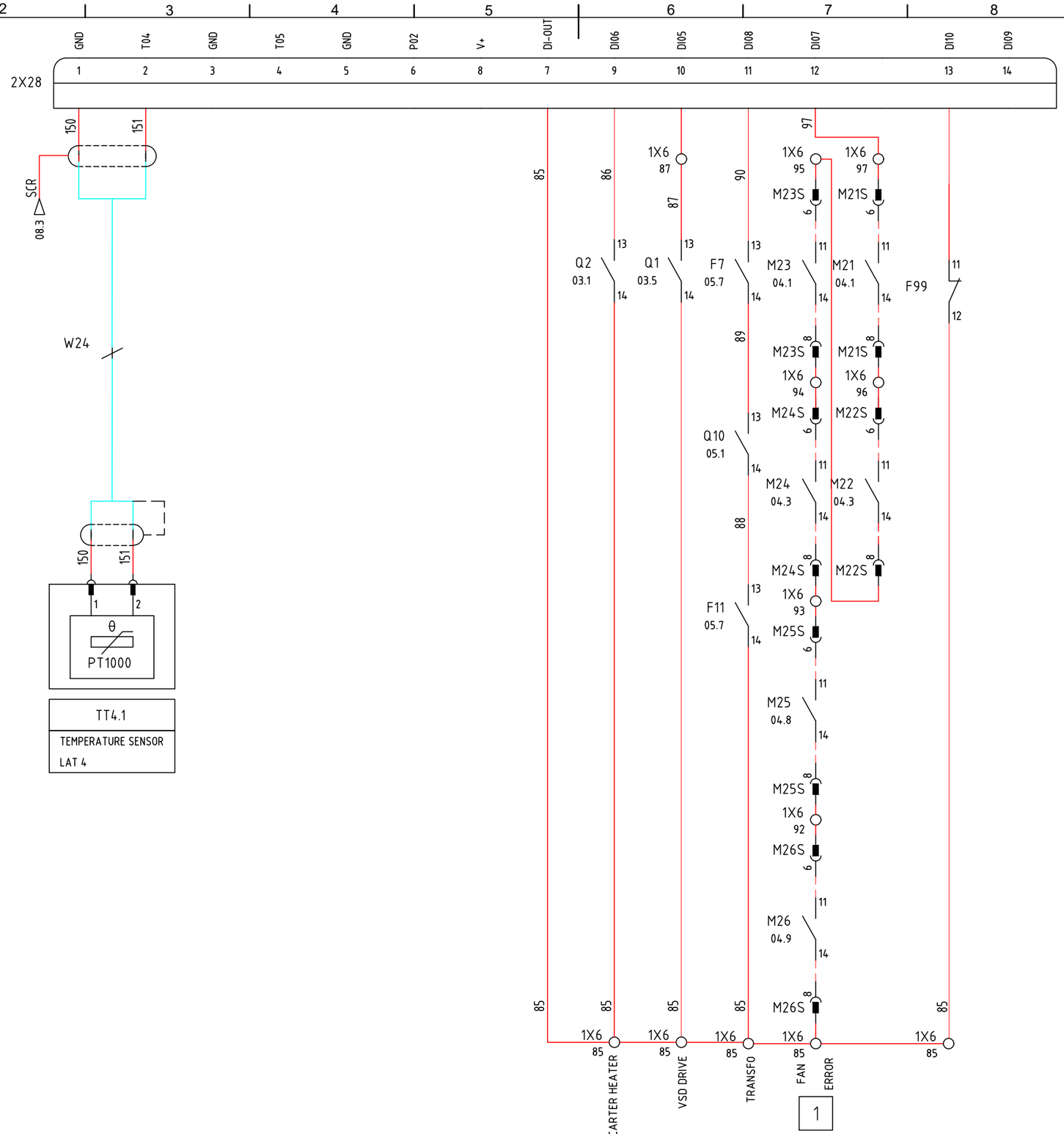
ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 08	Next Page 10	A3	Designation	Sheet 09 (20)
Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01	



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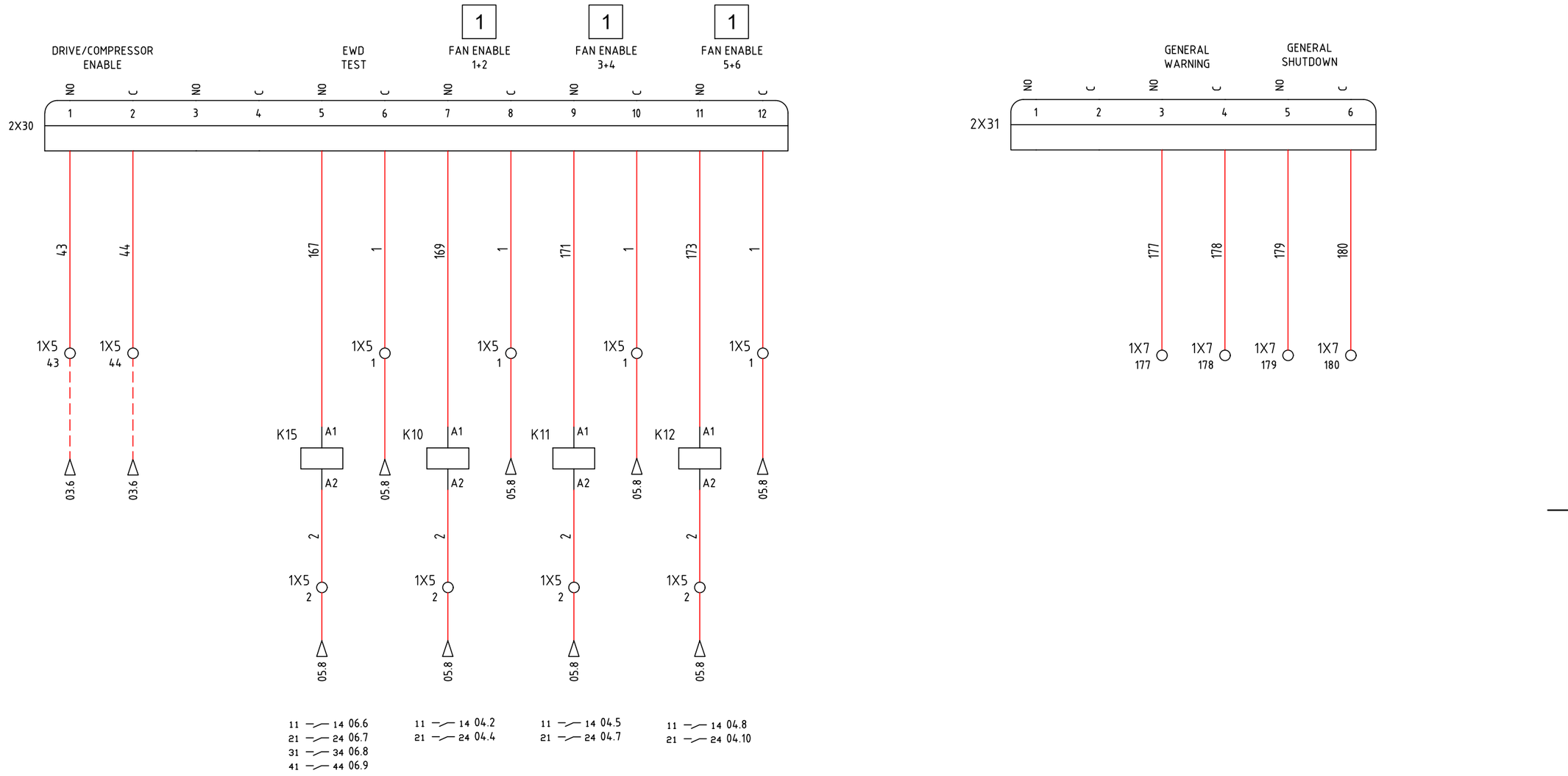
nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 09	Next Page 11	A3	Designation
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01

Sheet 10 (20)



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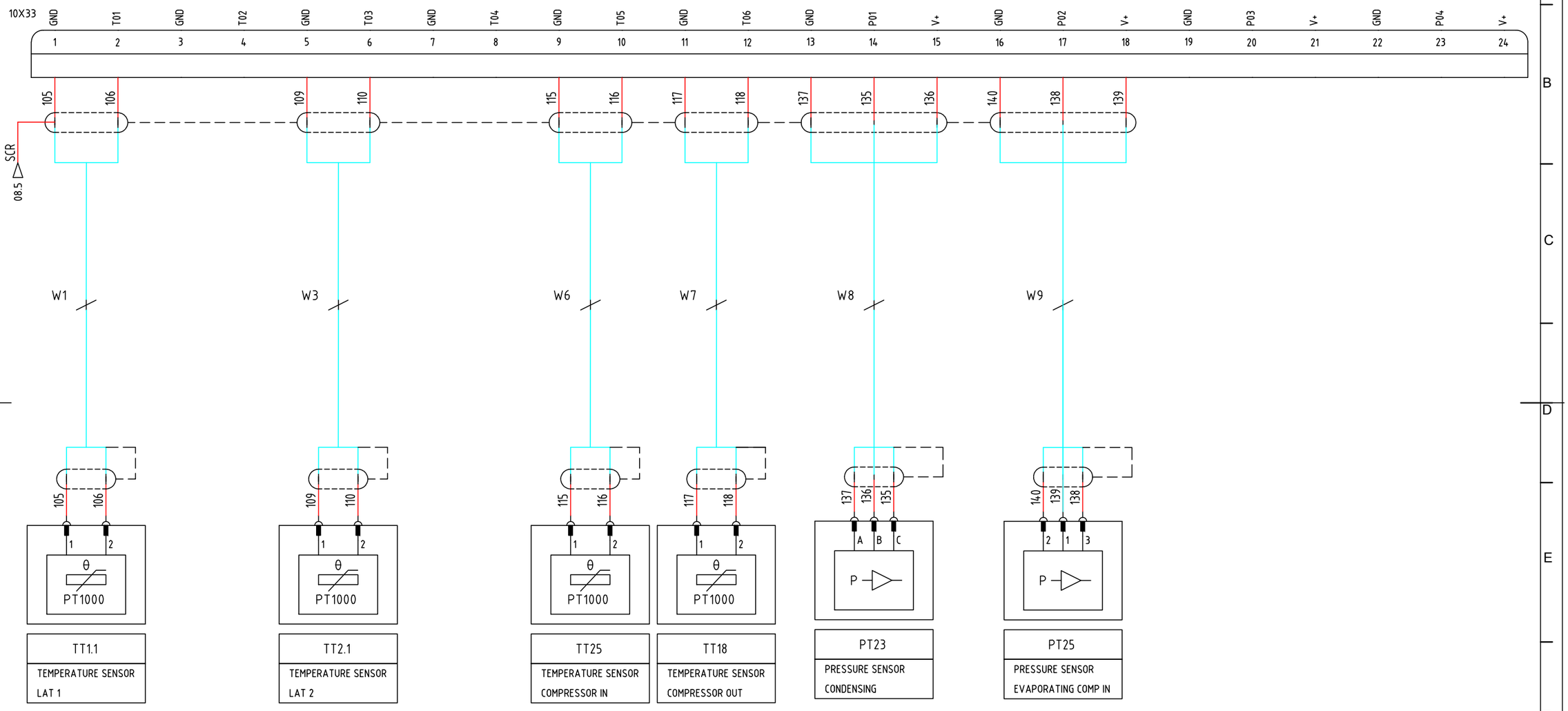
nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 10	Next Page 12	A3	Designation
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		Sheet 11 (20) 1839007644-01

VDR 8450

3



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nano COMPRESSED AIR DRYER VDR	ACD	Name Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 11	Next Page 13	A3	Designation	Sheet 12 (20)
	Drawing owner AIF		RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01	

VDR 8450

3

10X36

Supply 24V AC/DC
Supply 24V AC/DC

1 2

05.8 1X5 21
05.8 1X5 22

10X35

Stepper Supply +24V DC
Not used
Stepper Supply GND

1 2 3

05.8 1X5 78
05.8 1X5 79

10X31

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SM01_A+	SM01_A-	SM01_B+	SM01_B-	SM02_A+	SM02_A-	SM02_B+	SM02_B-	SM03_A+	SM03_A-	SM03_B+	SM03_B-	SM04_A+	SM04_A-	SM04_B+	SM04_B-
250	251	252	253	258	259	260	261	254	255	256	257	262	263	264	265

W12 — 250 251 252 253 — M — EEV1

W13 — 258 259 260 261 — M — HGBP1

W14 — 254 255 256 257 — M — EEV2

W15 — 262 263 264 265 — M — HGBP2

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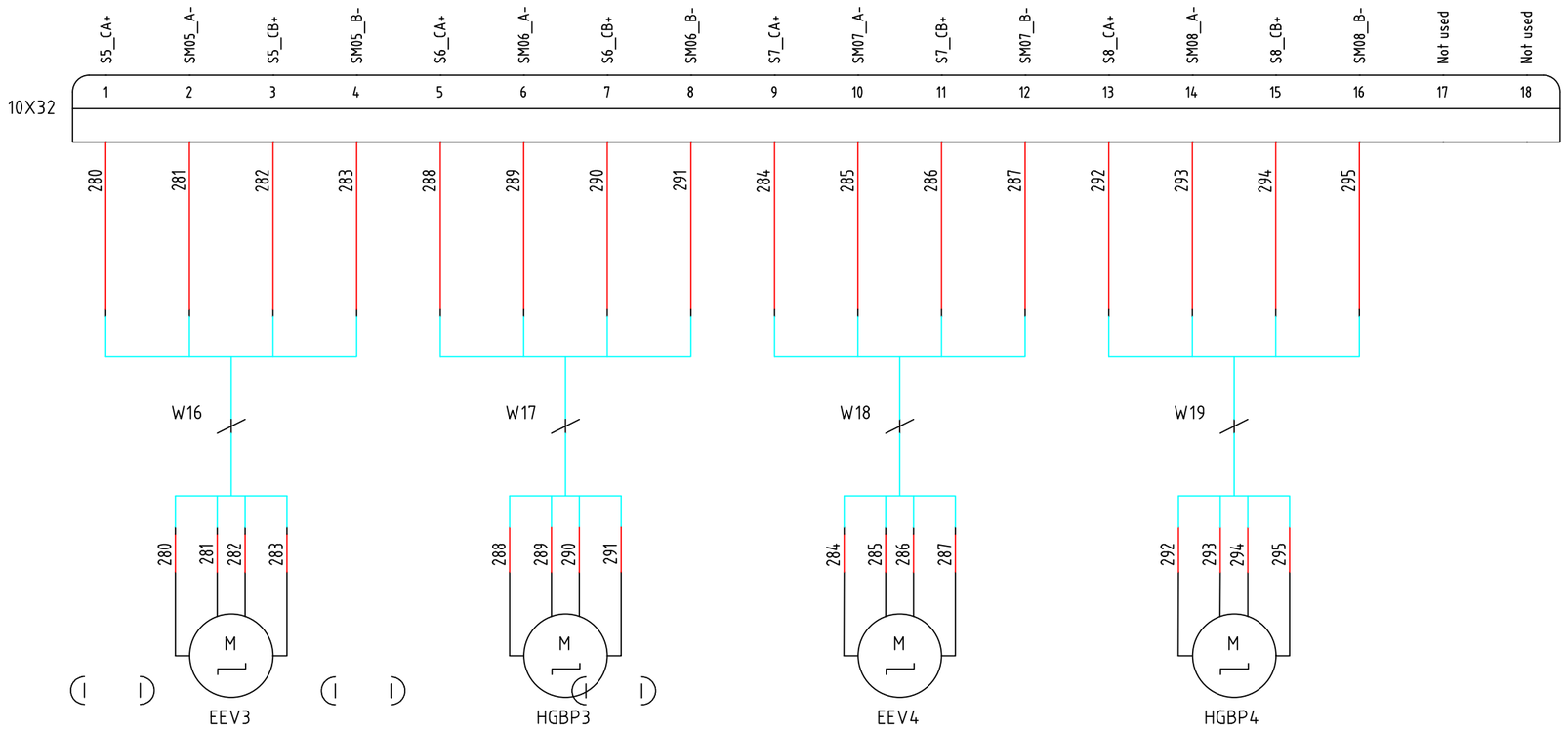
nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 12	Next Page 14	A3	Designation	Sheet 13 (20)
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01	



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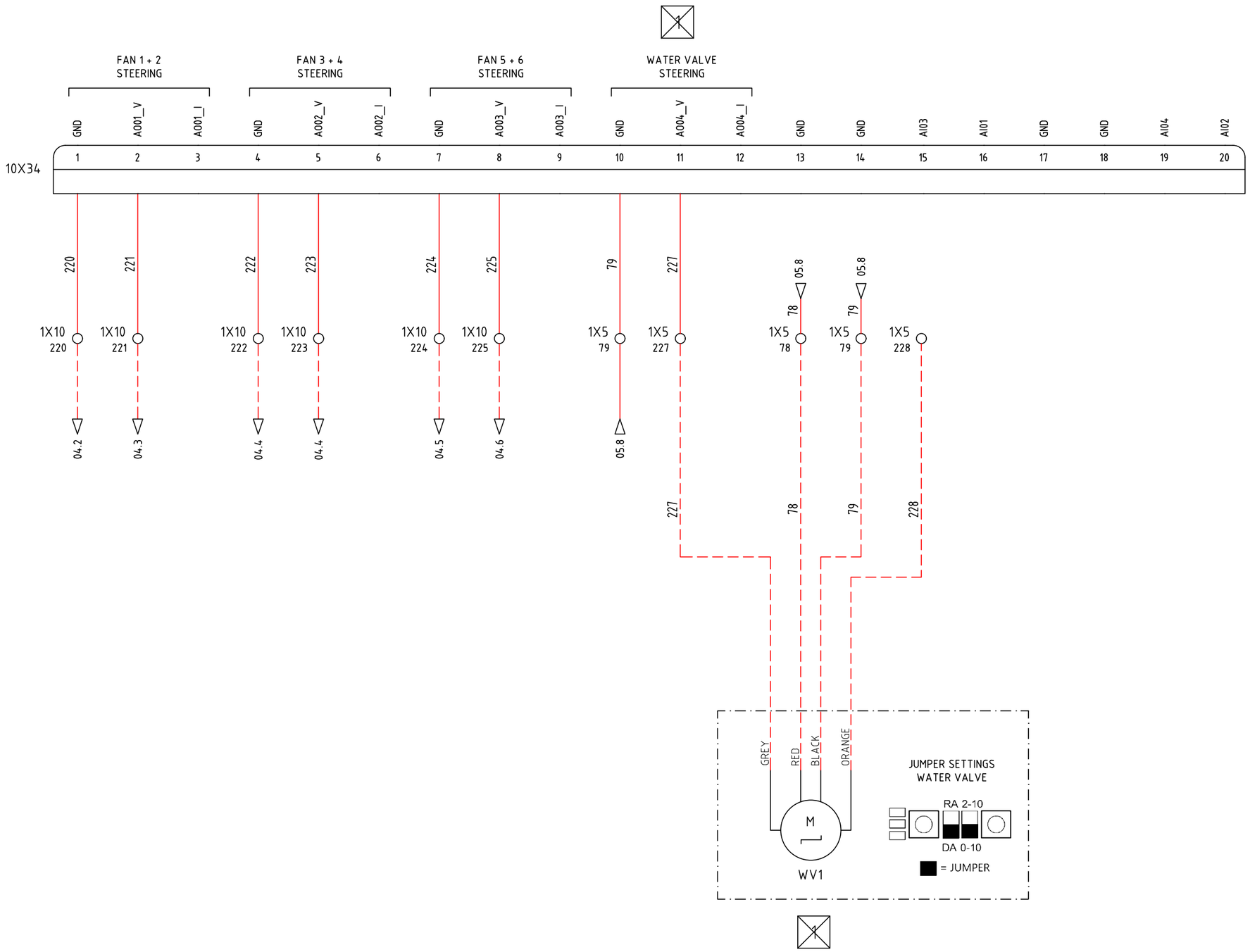
nano COMPRESSED AIR DRYER VDR	ACD	Name Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 13	Next Page 15	A3	Designation	Sheet 14 (20)
	Drawing owner AIF		RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01	



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nano COMPRESSED AIR DRYER VDR	ACD Drawing owner AIF	Name Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 14	Next Page 16	A3	Designation 1839007644-01 Sheet 15 (20)
			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		

LEGEND				
LOCATION	TAGNAME	PAGE	DESCRIPTION	FUNCTION
CANOPY	EEV1	13	STEPPER MOTOR	EEV1
CANOPY	EEV2	13	STEPPER MOTOR	EEV2
CANOPY	EEV3	14	STEPPER MOTOR	EEV3
CANOPY	EEV4	14	STEPPER MOTOR	EEV4
CANOPY	EWD1	06	ELECTRONIC WATER DRAIN	DRYER
CANOPY	EWD2	06	ELECTRONIC WATER DRAIN	DRYER
CANOPY	EWD3	06	ELECTRONIC WATER DRAIN	DRYER
CANOPY	EWD4	06	ELECTRONIC WATER DRAIN	DRYER
CANOPY	EWD5	06	ELECTRONIC WATER DRAIN	AIR FILTER
CANOPY	GND11	06	GROUND	EWD1
CANOPY	GND11	06	GROUND	EWD1
CANOPY	GND11	06	GROUND	EWD1
CANOPY	GND11	06	GROUND	EWD1
CANOPY	GND13	06	GROUND	EWD3
CANOPY	HGBP1	13	STEPPER MOTOR	HGBP1
CANOPY	HGBP2	13	STEPPER MOTOR	HGBP2
CANOPY	HGBP3	14	STEPPER MOTOR	HGBP3
CANOPY	HGBP4	14	STEPPER MOTOR	HGBP4
CANOPY	M1	03	MOTOR	COMPRESSOR
CANOPY	M21	04	MOTOR	FAN 1
CANOPY	M21P	04	CONNECTOR	FAN 1 POWER
CANOPY	M21S	04	CONNECTOR	FAN 1 SIGNAL
CANOPY	M22	04	MOTOR	FAN 2
CANOPY	M22P	04	CONNECTOR	FAN 2 POWER
CANOPY	M22S	04	CONNECTOR	FAN 2 SIGNAL
CANOPY	M23	04	MOTOR	FAN 3
CANOPY	M23P	04	CONNECTOR	FAN 3 POWER
CANOPY	M23S	04	CONNECTOR	FAN 3 SIGNAL
CANOPY	M24	04	MOTOR	FAN 4
CANOPY	M24P	04	CONNECTOR	FAN 4 POWER
CANOPY	M24S	04	CONNECTOR	FAN 4 SIGNAL
CANOPY	M25	04	MOTOR	FAN 5
CANOPY	M25P	04	CONNECTOR	FAN 5 POWER
CANOPY	M25S	04	CONNECTOR	FAN 5 SIGNAL
CANOPY	M26	04	MOTOR	FAN 6
CANOPY	M26P	04	CONNECTOR	FAN 6 POWER
CANOPY	M26S	04	CONNECTOR	FAN 6 SIGNAL
CANOPY	PT23	12	PRESSURE SENSOR	CONDENSING

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COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 15	Next Page 17	A3	Designation
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01

LEGEND				
LOCATION	TAGNAME	PAGE	DESCRIPTION	FUNCTION
CANOPY	PT25	12	PRESSURE SENSOR	EVAPORATING COMP IN
CANOPY	RS1	03	HEATER PAD	HEATER PAD COMPRESSOR
CANOPY	S2	06	SWITCH	HIGH PRESSURE
CANOPY	S3	06	SWITCH	FLOW
CANOPY	TT1.1	12	TEMPERATURE SENSOR	LAT 1
CANOPY	TT2.1	12	TEMPERATURE SENSOR	LAT 2
CANOPY	TT3.1	09	TEMPERATURE SENSOR	LAT 3
CANOPY	TT4.1	10	TEMPERATURE SENSOR	LAT 4
CANOPY	TT17	09	TEMPERATURE SENSOR	AMBIENT
CANOPY	TT18	12	TEMPERATURE SENSOR	COMPRESSOR OUT
CANOPY	TT25	12	TEMPERATURE SENSOR	COMPRESSOR IN
CANOPY	U1	03	CONVERTER	COMPRESSOR
CANOPY	WV1	15	STEPPER MOTOR	WATER VALVE 1
CANOPY	X1.1	03	CONNECTOR	HEATER PAD
CANOPY	Y10	03	SOLENOID	COMPRESSOR
CONTROL PANEL	2X24	07	CONNECTOR MK5	I/O OUT RJ11
CONTROL PANEL	2X25	07	CONNECTOR MK5	ETHERNET RJ45
CONTROL PANEL	2X26	07	CONNECTOR MK5	MEMORY CARD
CONTROL PANEL	2X27	09	CONNECTOR MK5	
CONTROL PANEL	2X28	10	CONNECTOR MK5	
CONTROL PANEL	2X30	11	CONNECTOR MK5	AUX RELAIS (K01-K06)
CONTROL PANEL	2X31	11	CONNECTOR MK5	AUX RELAIS (K07-K09)
CONTROL PANEL	10X23	08	CONNECTOR IO5	I/O IN RJ11
CONTROL PANEL	10X24	08	CONNECTOR IO5	I/O OUT RJ11
CONTROL PANEL	10X31	13	CONNECTOR IO5	
CONTROL PANEL	10X32	14	CONNECTOR IO5	
CONTROL PANEL	10X33	12	CONNECTOR IO5	
CONTROL PANEL	10X34	15	CONNECTOR IO5	
CONTROL PANEL	10X35	13	CONNECTOR IO5	
CONTROL PANEL	10X36	13	CONNECTOR IO5	SUPPLY 24V AC/DC
CONTROL PANEL	E1	07	REGULATOR	MK5S
CONTROL PANEL	E2	08	EXPANSION MODULE	IO5
CONTROL PANEL	F6	05	CIRCUIT BREAKER	MK5/EXPANSION MODULE
CONTROL PANEL	F7	05	CIRCUIT BREAKER	OTHER COMPONENTS

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LEGEND				
LOCATION	TAGNAME	PAGE	DESCRIPTION	FUNCTION
CONTROL PANEL	F11	05	CIRCUIT BREAKER	STEERING BOARDS
CONTROL PANEL	F20	04	FUSE	FANS
CONTROL PANEL	GND1	03	GROUND	1X3
CONTROL PANEL	GND2	05	GROUND	T1
CONTROL PANEL	GND3	05	GROUND	T1
CONTROL PANEL	GND5	03	GROUND	1X3
CONTROL PANEL	K1	06	CONTACTOR	COMPRESSOR RUN
CONTROL PANEL	K10	11	RELAIS	RUN ENABLE FAN1+2
CONTROL PANEL	K11	11	RELAIS	RUN ENABLE FAN3+4
CONTROL PANEL	K12	11	RELAIS	RUN ENABLE FAN5+6
CONTROL PANEL	K15	11	RELAIS	DRAIN TEST
CONTROL PANEL	Q1	03	CIRCUIT BREAKER	DRIVE
CONTROL PANEL	Q2	03	CIRCUIT BREAKER	HEATER
CONTROL PANEL	Q5	05	CIRQUIT BREAKER	TRANSFORMER T1
CONTROL PANEL	Q10	05	CIRCUIT BREAKER	TRANSFORMER T2
CONTROL PANEL	T1	05	TRANSFORMER	MK5/EXPANSION/OTHER
CONTROL PANEL	T2	05	POWER SUPPLY	SMARTBOX
CUSTOMER	F0	03	FUSE	CUSTOMER'S INSTALLATION
CUSTOMER	S0	03	CUSTOMER'S INSTALLATION	MAIN SWITCH
CUSTOMER	S1	09	CUSTOMER'S INSTALLATION	REMOTE START/STOP

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nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 17	Next Page 19	A3	Designation 1839007644-01 Sheet 18 (20)
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		

STRIP-ID	WIRENO	SH
1X0	L1	03
1X0	L2	03
1X0	L3	03
1X2	17	04
1X2	17	04
1X2	17	04
1X2	17	04
1X2	17	04
1X2	17	04
1X2	18	04
1X2	18	04
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1X2	19	04
1X2	19	04
1X3	PE	03
1X3	PE	03
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1X3	PE	06
1X3	PE	06
1X3	PE	06
1X5	1	06
1X5	1	06
1X5	1	06
1X5	1	06
1X5	1	06

1X5	1	06
1X5	1	06
1X5	1	11
1X5	1	11
1X5	1	11
1X5	1	11
1X5	2	05
1X5	2	06
1X5	2	06
1X5	2	06
1X5	2	06
1X5	2	06
1X5	2	06
1X5	2	06
1X5	2	11
1X5	2	11
1X5	2	11
1X5	2	11
1X5	21	13
1X5	22	13
1X5	40	06
1X5	41	06
1X5	42	06
1X5	43	11
1X5	44	11
1X5	78	13
1X5	78	15
1X5	79	13
1X5	79	15
1X5	79	15
1X5	227	15
1X5	228	15
1X6	52	09
1X6	52	09
1X6	52	09
1X6	52	09
1X6	53	09
1X6	54	09
1X6	55	09
1X6	56	09
1X6	58	09
1X6	60	09

1X6	61	09
1X6	85	10
1X6	85	10
1X6	85	10
1X6	85	10
1X6	85	10
1X6	85	10
1X6	87	10
1X6	91	10
1X6	92	10
1X6	93	10
1X6	94	10
1X6	95	10
1X6	96	10
1X6	97	10
1X7	177	11
1X7	178	11
1X7	179	11
1X7	180	11
1X10	220	15
1X10	221	15
1X10	222	15
1X10	223	15
1X10	224	15
1X10	225	15

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nano COMPRESSED AIR DRYER VDR	ACD	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 18	Next Page 20	A3	Designation Sheet 19 (20)
	Drawing owner AIF			RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		1839007644-01

NOTES

Cables:

Power wires

- Installed wires
- Optional installed wires
- Earth/ground installed wires
- Customer installed wires

Control/other wires:

- Installed wires
- Optional installed wires
- Earth/ground installed wires
- Customer installed wires
- Wires installed by production
- Installed multi wire cables
- Component links
- Terminal/connector links

Terminal diagram:

1X0 : Supply
1X1 : Main motor connections
1X2 : Fan/Dryer motor connections
1X3 : Earth
1X4 : 115V/230V AC control circuit
1X5 : 24V AC control circuit
1X6 : 24V DC control circuit
1X7 : Customer contacts
1X8 : Option terminals
1X9 : Standard connector terminals
1X10 : Optional connector terminals
1X11 : Signal/data terminals

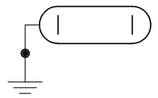
[A] Only for CSA/UL variant

Tightening torque for bolts:

metric thread size M5: 2,7Nm (2 lbft)
metric thread size M6: 7Nm (5 lbft)
metric thread size M8: 12Nm (9 lbft)
metric thread size M10: 20Nm (15 lbft)
metric thread size M12: 30Nm (22,5 lbft)

Type of glands:

EMC-cable gland

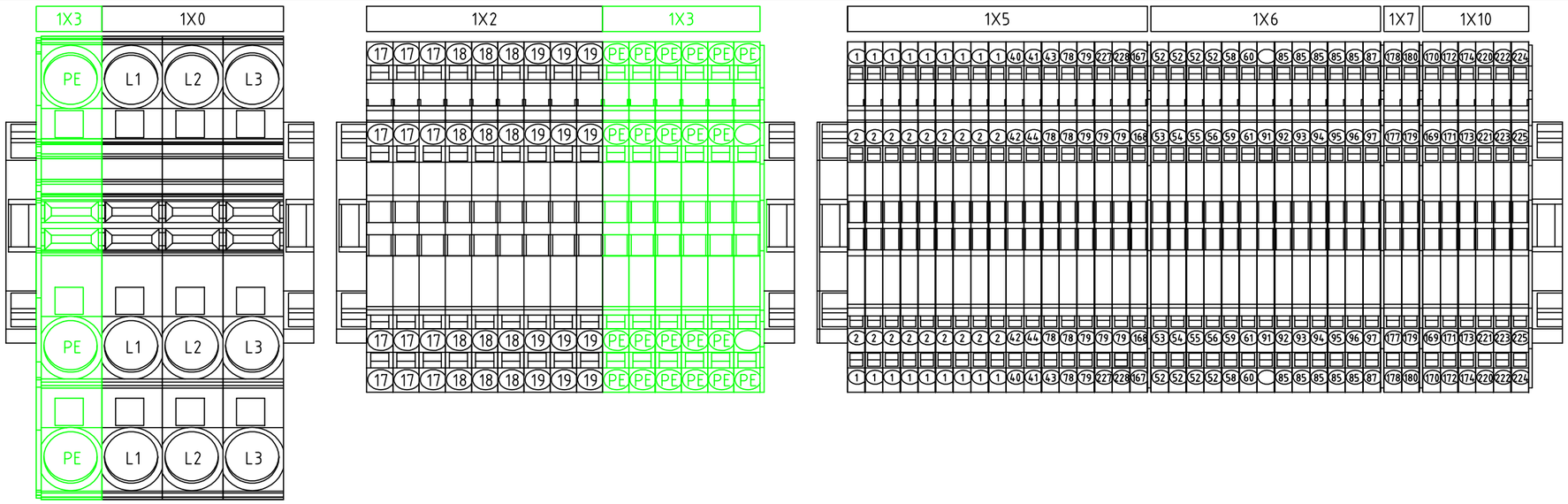


Cable gland

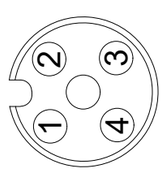
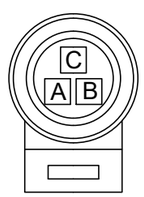
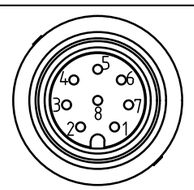
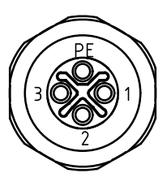
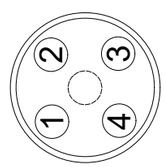
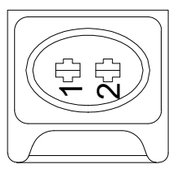
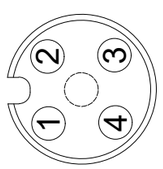
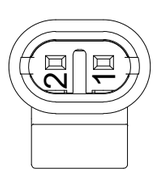
CLASS MARKING CIRCUIT LESS THAN 30Vrms				
COMPONENT	REFERENCE	TORQUE (NM)	CLASS 1 CONTROL CIRCUIT	CLASS 2 CONTROL CIRCUIT
TERMINAL	1X5 (*)	-	X	
TERMINAL	1X6 (*)	-	X	
TERMINAL	1X7 (*)	-	X	
TERMINAL	1X10 (*)	-	X	
CONNECTOR	2X27 (*)	-	X	
CONNECTOR	2X28 (*)	-	X	
CONNECTOR	2X30 (*)	-	X	
CONNECTOR	2X31 (*)	-	X	
CONNECTOR	10X31 (*)	-	X	
CONNECTOR	10X33 (*)	-	X	
CONNECTOR	10X34 (*)	-	X	
CONNECTOR	10X35 (*)	-	X	
CONNECTOR	10X36 (*)	-	X	

(*)-24V is used

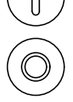
Terminal layout



Sensor pin configuration

PT25	PT23	M21S-M22S-M23S-M24S	M21P-M22P-M23P-M24P	EEV1/2-HGBP1/2	TT1.1-TT1.2-TT25	S3	S2
 1 : +V SUPPLY 2 : -V SUPPLY 3 : OUTPUT 4 : COM	 C : SIGNAL B : V+ A : GND	 1 : E1 2 : +24Vdc 3 : nc 4 : +10V 5 : D1 6 : K1 (11) 7 : GND 8 : K1 (14)	 1 : L1 2 : L2 3 : L3 PE : PE	 FIXED	 1 : GND 2 : SIGNAL	 1 : 24V 2 : NO 3 : GND 4 : COM	 1 : NC 2 : COM

Elektronikon buttons



Start Button

Programmed Stop Button

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nano COMPRESSED AIR DRYER VDR	ACD Drawing owner AIF	Name	Service diagram - VDR6350-8450	STATUS	Ed.	Date	Prev. Page 19	Next Page	A3	Designation 1839007644-01
				RELEASED	1	2/18/2022	Drawn by	Date 12/13/2021		Sheet 20 (20)