1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

A ~ 50 Hz

L1
L2
L3
N
PE

L1
L2
L3
N
PE

B

L1 2.1 L2 2.2 L3 2.3 N 2.4 PE 2.5

PE PE PE PE

C

N L1 L2 L3

F1

D

N L1 L2 L3

MB1-B
MB1-A

L1 L2 L3

E

1 2 3 4   GND B+ A+

SDM630   K1

5 6 7 8   + P1 -   + P2 -

F

L1.1 L2.1 L3.1 N1

L1.1 L1.1

F4 F5 F6 F2 F3

G

L1.4 L1.3 L1.3 L1.3 L1.2 L1.2   L2.2 L3.2   N1 N1 N1 N1

3.3   3.4 3.5 3.6   3.7 3.8   4.3 4.4 4.5 4.6 5.1

H

L1.4 L1.3 L1.3 L1.3 L1.2   N1 N1 N1 N1 N1

L1.3 L1.3

9.3.2020 г.	Orlin Dimitrov						POLYGON TEAM LTD SOLUTIONS FOR EVERYONE	PROJET: Zontromat	CLIENT: BCVT
9.3.2020 г.	NAME	APPD	REVISION			11		OBJET: Main Power	
DESIGN:		CHKD		APPD			Title: Main Power	MODEL: OfficeCab-Type1-L1	File: Main Power 1/16
File: Main Power									

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

A

L2.2

L3.2

N1 N1

B

PE PE

C

D

PE L2.2 N1 PE L3.2 N1

E

F

G

1.1 3.1 4.1 1.2 3.2 4.2

Costumer PE2 Costumer L2 Costumer N1 Costumer PE3 Costumer L3 Costumer N1

H

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

L1.2
N1

L1.2
N1

L   N

AC 1~

24V DC

+   -

+24V

-24V

+24V +24V +24V +24V +24V +24V +24V +24V

-24V -24V -24V -24V

6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8

7.1 7.2 7.3 7.4 7.5

+24V +24V +24V +24V +24V +24V +24V   +24V

-24V -24V -24V -24V   -24V

2.11.2020 г.	Orlin Dimitrov						POLYGONTEAM LTD	PROJET: Zontromat	CLIENT: BCVT

OBJET: Operation Voltage 24
MODEL: OfficeCabType1-L1

2.11.2020 г.	NAME	APPD	REVISION			11	Title: Operation Voltage 24		

DESIGN:
CHKD   APPD

File: Operation Voltage 24

File: Operation Voltage 24   3/16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

A — L1.2 / N1

B — L1.2 / N1

C — 12V / 3A

D

E — +12V / -12V

F — +12V +12V +12V +12V / -12V -12V -12V -12V

G — +12V +12V +12V +12V / -12V -12V -12V -12V

H — Switch Tablet Blinds / Switch Tablet Blinds -24V

Out Door Tamper

Window Tamper

Door Tamper

Cabinet Tamper

PIR

+24V   +24V   +24V   +24V   +24V   +24V

-24V

+24V   +24V   +24V   +24V   -24V   +24V

+U
0V
SIG

ODT   WT   DT   CT   PIR

2.11.2020 г.	Orlin Dimitrov					PROJET: Zontromat	CLIENT: BCVT
						OBJET: Sensors 1	
			POLYGONTEAM LTD			MODEL: OfficeCabType1-L1	
			SOLUTIONS FOR EVERYONE				
2.11.2020 г.	NAME	APPD	REVISION		11	Title: Sensors 1	
DESIGN:		CHKD		APPD			
File: Sensors 1						File: Sensors 1	5/16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A																	
B																	
C																	
D																	
E																	
F																	
G																	
H																	

2.11.2020 г.	Orlin Dimitrov						POLYGONTEAM LTD	PROJET: Zontromat	CLIENT: BCVT
							SOLUTIONS FOR EVERYONE	OBJET: Sensors 2	
2.11.2020 г.	NAME	APPD	REVISION			11		MODEL: OfficeCabType1-L1	
DESIGN:		CHKD		APPD			Title: Sensors 2		
File: Sensors 2								File: Sensors 2	6/16

+24V

+24V

+24V

DW-C

CW

DW-H

HW

2.11.2020 г.	Orlin Dimitrov						POLYGONTEAM LTD	PROJET: Zontromat	CLIENT: BCVT
							SOLUTIONS FOR EVERYONE	OBJET: Drink Water	
								MODEL: OfficeCabType1-L1	
2.11.2020 г.	NAME	APPD	REVISION			11	Title: Drink Water		
DESIGN:		CHKD		APPD					
File: Drink Water								File: Drink Water	7/16

L1.3 L1.3 L1.3 L1.3
N N N N
-24V

-24V
A 1 -24V A 2

U1 0V U2
+0-10V- +0-10V- +0-10V- +0-10V-

L1.3 N L1.3 N L1.3 N L1.3 N

L 0-10V N + 0-10V -
XZ-CI45B-420100
LED + -

L 0-10V N + 0-10V -
XZ-CI45B-420100
LED + -

L 0-10V N + 0-10V -
XZ-CI45B-420100
LED + -

L 0-10V N + 0-10V -
XZ-CI45B-420100
LED + -

+ - + - + - + -

2.11.2020 г.	Orlin Dimitrov						PROJET: Zontromat	CLIENT: BCVT	
							OBJET: Lamps		
						POLYGONTEAM LTD	MODEL: OfficeCabType1-L1		
2.11.2020 г.	NAME	APPD	REVISION			11	SOLUTIONS FOR EVERYONE		
DESIGN:		CHKD		APPD			Title: Lamps		
File: Lamps								File: Lamps	8/16

Electrical schematic diagram — HVAC (sheet 9/16)

Column reference numbers: 1–17 (top), row references A–H (left side).

Bus labels: L1.3, N, +24V, -24V

- CS3, CS2, CS1 — terminals 1 2 3 N PE
- FAN1: 3.4 L-BR, 4.6 N-BL, GND-BL, 0-10V-YL
- FAN2: 3.5 L-BR, 4.7 N-BL, GND-BL, 0-10V-YL
- Valve 1 (M): RE-U+, BK-U-, GR-0-10V, YW-ERR, WT-POS — V1-FB, V1-POS, WM1
- Valve 2 (M): RE-U+, BK-U-, GR-0-10V, YW-ERR, WT-POS — V2-FB, V2-POS, WM2

2.11.2020 г.	Orlin Dimitrov						PROJET: Zontromat	CLIENT: BCVT	
							OBJET: HVAC		
							MODEL: OfficeCabType1-L1		
2.11.2020 г.	NAME	APPD	REVISION			11	Title: HVAC		
DESIGN:		CHKD		APPD				File: HVAC	9/16
File: HVAC									

POLYGON TEAM LTD
SOLUTIONS FOR EVERYONE

+24V

+24V

-24V

D-UNLOCK

+24V

-24V

+24V

Latch Controller

+24V   0V   Unlock+ Unlock-

Motor
+   -

+   '

9.7   9.8

+

M1 (M)   '

2.11.2020 г.	Orlin Dimitrov					POLYGONTEAM LTD	PROJET: Zontromat	CLIENT: BCVT
						SOLUTIONS FOR EVERYONE	OBJET: Door Lock	
2.11.2020 г.	NAME	APPD	REVISION		11		MODEL: OfficeCabType1-L1	
DESIGN:		CHKD		APPD		Title: Door Lock		
File: Door Lock							File: Door Lock	10/16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

A +24V / -24V

B B-CW / B-CCW / BC-FB / +24V / -24V

C Blinds Controller — +24V 0V — CW CCW D-FB C-FB — Limit CW — Limit CCW

D +Motor− — 9.9 — 9.10

E + — L-CCW-1 — L-CCW-2 — L-CC-1 — L-CCW-2

F M — Optional Shaft

2.11.2020 г.	Orlin Dimitrov						POLYGONTEAM LTD	PROJET: Zontromat	CLIENT: BCVT
							SOLUTIONS FOR EVERYONE	OBJET: Blinds	
2.11.2020 г.	NAME	APPD	REVISION			11		MODEL: OfficeCabType1-L1	
DESIGN:		CHKD		APPD			Title: Blinds		
File: Blinds								File: Blinds	11/16

L1.3
+24V
+24V
-24V
-24V

MB1-A
MB1-B

MB1-A
MB1-B

DW-C
DW-H
WM1
WM2

10.1 10.2 10.3 10.4 8.1 8.2 8.3 8.4

DW-C
DW-H
WM1
WM2
BC-FB

-24V
-24V
L1.3

FAN2
V1-POS
FAN1
V2-POS
CS1
A2
CS2
A1
CS3
PE

UniPi
Neuron - M503

RS485-A 1.1
RS485-B 1.1
DI1.4
DI1.3
DI1.2
DI1.1
DIGND
AI1.1
AGND
AO1.1
AGND
AOV2.4
RS485-A 2.1
RS485-B 2.1
AGND
RO2.5
AOV2.3
COM
RO2.4
AGND
RO2.3
AOV2.2
COM
RO2.2
AGND
COM
AOV2.1
RO2.1

+24V
PE
GND
+24V
PE
-24V
DOGND
DO1.4
DO1.3
DO1.2
DO1.1
FBD

+24V
-24V

TABLET_POWER
D-UNLOCK
B-CCW
B-CW

1-Wire

1-Wire

-24V

AI2.4
AIS2.4
AGND
AI2.3
AIS2.3
DI2.6
AGND
DI2.5
AI2
DI2.4
AIS2.2
DI2.3
AGND
DI2.2
AI2.1
DI2.1
AIS2.1
DIGND

V2 FB
ODT
V1-FB

WT DT PIR CT

8.14 8.13 8.12 8.11 8.10 8.9 5.2 5.3 5.4 5.5

V1-POS
V2-POS
FAN2
FAN1
A2
A1
CS1
CS2
CS3

8.5 8.6 8.7 8.8 8.15 8.16 12.1

WT
DT
PIR
CT
V1-FB
V2-FB
ODT

1W Data
1W +
1W -

9.1 9.2 9.3

2.11.2020 г. Orlin Dimitrov

2.11.2020 г.   NAME   APPD   REVISION
DESIGN: CHKD   APPD
File: Controller

POLYGON TEAM LTD
SOLUTIONS FOR EVERYONE

PROJET: Zontromat
OBJET: Controller
MODEL: OfficeCabType1-L1

CLIENT: BCVT

11

Title: Controller

File: Controller

12/16

№	Terminal	Signal Type	Siganl Name	Function	Location
1	1.1	PE	PE	Costumer 1	Cabinet
2	1.2	PE	PE	Costumer 2	Cabinet
3	2.1	L1	L1	MAIN L1	Cabinet
4	2.2	L3	L2	MAIN L2	Cabinet
5	2.3	L3	L3	MAIN L3	Cabinet
6	2.4	N	N	MAIN N	Cabinet
7	2.5	PE	PE	MAIN PE	Cabinet
8	3.1	L2	L2.1	Costumer 1	Cabinet
9	3.2	L3	L3.1	Costumer 2	Cabinet
10	3.3	L1	L1.1	Lignt	Cabinet
11	3.4	L1	L1.2	Fan 1	Cabinet
12	3.5	L1	L1.2	Fan 2	Cabinet
13	3.6	L1	L1.2	Convector	Cabinet
14	3.7	L1	L1.3	24-PU	Cabinet
15	3.8	L1	L1.3	FREE	Cabinet
16	4.1	N	N1	Costumer 1	Cabinet
17	4.2	N	N1	Costumer 2	Cabinet
18	4.3	N	N1	24-PU	Cabinet
19	4.4	N	N1	Light	Cabinet
20	4.5	N	N1	Fan 1	Cabinet
21	4.6	N	N1	Fan 1	Cabinet
22	5.1	N	N1	Convector	Cabinet
23	5.2	L1	CS1	Convector S1	Cabinet
24	5.3	L1	CS2	Convector S2	Cabinet
25	5.4	L1	CS3	Convector S3	Cabinet

№	Terminal	Signal Type	Siganl Name	Function	Location
26	5.5	PE	PE	Convector	Cabinet
27	6.1	+24V	+24V	Water Meter Cool	Cabinet
28	6.2	+24V	+24V	Water Meter Hot	Cabinet
29	6.3	+24V	+24V	Water Meter Loop 1	Cabinet
30	6.4	+24V	+24V	Water Meter Loop 2	Cabinet
31	6.5	+24V	+24V	Window Tamper	Cabinet
32	6.6	+24V	+24V	Door Tamper	Cabinet
33	6.7	+24V	+24V	Cabinet Tamper	Cabinet
34	6.8	+24V	+24V	PIR Room	Cabinet
35	7.1	-24V	-24V	Light	Cabinet
36	7.2	-24V	-24V	Valve Loop 1	Cabinet
37	7.3	-24V	-24V	Valve Loop 2	Cabinet
38	7.4	-24V	-24V	Fan 1	Cabinet
39	7.5	-24V	-24V	Fan 2	Cabinet
40	7.10	-24V	-24V	FREE	Cabinet
41	8.1	DI-0-24V	DW-C	Water Meter Cool	Cabinet
42	8.2	DI-0-24V	DW-H	Water Meter Hot	Cabinet
43	8.3	DI-0-24V	WM1	Water Meter Loop 1	Cabinet
44	8.4	DI-0-24V	WM2	Water Meter Loop 2	Cabinet
45	8.5	DI-0-24V		Window Tamper	Cabinet
46	8.6	DI-0-24V		Door Tamper	Cabinet
47	8.7	DI-0-24V		PIR Room	Cabinet
48	8.8	DI-0-24V		Cabinet Tamper	Cabinet
49	8.9	AO-0-10V	A1	Light	Cabinet
50	8.10	AO-0-10V	A2	Light	Cabinet

№	Terminal	Signal Type	Siganl Name	Function	Location
51	8.11	AO-0-10V	FAN 1	Fan 1	Cabinet
52	8.12	AO-0-10V	FAN 2	Fan 2	Cabinet
53	8.13	DO-0-24V	V1-POS	Valve Loop 1 POS	Cabinet
54	8.15	DO-0-24V	V2-POS	Valve Loop 2 POS	Cabinet
55	8.15	AI-0-10V	V1-FB	Valve Loop 1 FB	Cabinet
56	8.16	AI-0-10V	V2-FB	Valve Loop 2 FB	Cabinet
57	10.1	1 Wire	Data	1W Sensors	Cabinet
58	10.2	+5V	Power +	1W Sensors	Cabinet
59	10.3	0V	Power -	1W Sensors	Cabinet
60	11.1	Twisted Pear	MB1-A	Modbus RTU Neuron A	Cabinet
61	11.2	Twisted Pear	MB1-A	modbus RTU SDM630 A	Cabinet
62	11.3	Twisted Pear	MB1-B	Modbus RTU Neuron B	Cabinet
63	11.4	Twisted Pear	MB1-B	modbus RTU SDM630 B	Cabinet
64	12.1	DI-0-24V	ODT	Out Door Tamper	Cabinet
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					

Column numbers: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Row letters: A B C D E F G H I

F1 F2 F3 F4 F5 F6
100 A 100 A 100 A 100 A 100 A 100 A
0-OFF
AST M
18mm 2.25mm

EASTRON SDM630-Modbus V2 0120/SGS0151
U/I
M
P
E
MW
L N
CE M18 0120
3x230/400V 50Hz 400imp/kWh
0,5-10(100)A 3K6 SW :V1.3 2018
+ -

Cabinet PE

Costumer PE2
Costumer PE3
MAIN L1
MAIN L2
MAIN L3
MAIN N
MAIN PE
Costumer L2
Costumer L3
Light
Fan 1
Fan 2
Convector
24V PU
Consumer N2
Consumer N3
24V PU
Light
Fan 1
Fan 2
Convector N
Convector S1
Convector S2
Convector S3
Convector PE
Flowmeter Water C
Flowmeter Water H
Flowmeter Loop 1
Flowmeter Loop 2
Window Tamper
Door Tamper
Cabinet Tamper
PIR Room
Light
Valve 1
Valve 2
Fan 1
Fan 2
Flowmeter Water C
Flowmeter Water H
Flowmeter Loop 1
Flowmeter Loop 2
Window Tamper
Door Tamper
Cabinet Tamper
PIR Room
Light A0
Light A1
Fan 1
Fan 2
Valve 1 FB
Valve 2 FB
Valve 1
Valve 2
Data
V+
V -
1W Bus
Data/+/A
Data/ - /B
MODBUS
Out Door Tamper

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