

Object: HATRICK OY / NIKOLAV\_11557

*Fixed Windows*

Surface resistance: 17 Ω

J Code	W x H (mm)	Electr. H/W	Wire l. (m)	U <sub>op</sub> (V)	U <sub>meas</sub> (V)	I <sub>op</sub> (A)	I <sub>meas</sub> (A)	R (Ω)	R <sub>meas</sub> (Ω)	R/A (Ω/m <sup>2</sup> )	Pop (W)	Pop/A (W/m <sup>2</sup> )	U <sub>test</sub> (V)	I <sub>test</sub> (A)	T <sub>max</sub> (°C)	T <sub>d</sub> (°C)	OK	WCL	
<b>SERIES 1</b>																			
1. W 1 K	1934 x 2434	W	M3 / 5,0	115	—	5,4	—	21,4	—	—	617	133	230	10,7	—	—	—	—	5,2 / 9,4
2. W 2 K	1934 x 2434	W	M3 / 5,0	115	—	5,4	—	21,4	—	—	617	133	230	10,7	—	—	—	—	5,2 / 9,4
				230	—	5,4	—	42,9	—	—	1234								
<b>SERIES 2</b>																			
3. W 3 K	1934 x 2434	W	M3 / 5,0	115	—	5,4	—	21,4	—	—	617	133	230	10,7	—	—	—	—	5,2 / 9,4
4. W 4 K	1934 x 2434	W	M3 / 5,0	115	—	5,4	—	21,4	—	—	617	133	230	10,7	—	—	—	—	5,2 / 9,4
				230	—	5,4	—	42,9	—	—	1234								
<b>SERIES 3</b>																			
5. W 6 K	1634 x 2434	W	M3 / 5,0	115	—	4,5	—	25,4	—	—	520	133	230	9,0	—	—	—	—	5,2 / 9,1
6. W 6 K	1634 x 2434	W	M3 / 5,0	115	—	4,5	—	25,4	—	—	520	133	230	9,0	—	—	—	—	5,2 / 9,1
				230	—	4,5	—	50,9	—	—	1040								
<b>SERIES 4</b>																			
7. W 7 K	1634 x 2434	W	M3 / 5,0	115	—	4,5	—	25,4	—	—	520	133	230	9,0	—	—	—	—	5,2 / 9,1
8. W 7 K	1634 x 2434	W	M3 / 5,0	115	—	4,5	—	25,4	—	—	520	133	230	9,0	—	—	—	—	5,2 / 9,1
				230	—	4,5	—	50,9	—	—	1040								
<b>SERIES 5</b>																			
9. W 5 K	2434 x 1457	H	M1 / 5,0	115	—	4,0	—	28,6	—	—	463	133	230	8,1	—	—	—	—	5,2 / 8,9
10. W 5 K	2434 x 1457	H	M1 / 5,0	115	—	4,0	—	28,6	—	—	463	133	230	8,1	—	—	—	—	5,2 / 8,9
				230	—	4,0	—	57,1	—	—	926								

Object: HATRICK OY / NIKOLAV\_11557 Surface resistance: 17 Ω

J Code	W x H (mm)	Electr. H/W	Wire l. (m)	Uop (V)	Urmeas (V)	lop (A)	lmeas (A)	R (Ω)	Rmeas (Ω)	R/A (Ω/m <sup>2</sup> )	Pop (W)	Pop/A (W/m <sup>2</sup> )	Utest (V)	Itest (A)	Tmax (°C)	Td (°C)	OK	WCL	
<b>SERIES 6</b>																			
11. W 5 K	2434 x 1457	H	M1 / 5,0	115	—	4,0	—	28,6	—	—	463	133	230	8,1	—	—	—	—	5,2 / 8,9
12. W 5 K	2434 x 1457	H	M1 / 5,0	115	—	4,0	—	28,6	—	—	463	133	230	8,1	—	—	—	—	5,2 / 8,9
				<u>230</u>		<u>4,0</u>		<u>57,1</u>			<u>926</u>								
<b>SERIES 7</b>																			
13. Pos K	1734 x 3914	W	M3 / 5,0	230	—	6,0	—	38,6	—	—	1370	205	460	11,9	—	—	—	—	5,2 / 10,6
				<u>230</u>		<u>6,0</u>		<u>38,6</u>			<u>1370</u>								
<b>SERIES 8</b>																			
14. Pos K	1734 x 3914	W	M3 / 5,0	230	—	6,0	—	38,6	—	—	1370	205	460	11,9	—	—	—	—	5,2 / 10,6
				<u>230</u>		<u>6,0</u>		<u>38,6</u>			<u>1370</u>								
<b>SERIES 9</b>																			
15. Pos K	1734 x 3914	W	M3 / 5,0	230	—	6,0	—	38,6	—	—	1370	205	460	11,9	—	—	—	—	5,2 / 10,6
				<u>230</u>		<u>6,0</u>		<u>38,6</u>			<u>1370</u>								
<b>SERIES 10</b>																			
16. Pos K	1734 x 3914	W	M3 / 5,0	230	—	6,0	—	38,6	—	—	1370	205	460	11,9	—	—	—	—	5,2 / 10,6
				<u>230</u>		<u>6,0</u>		<u>38,6</u>			<u>1370</u>								

Wire  
 2x1.5mm<sup>2</sup> Double Insulated  
 Supplies  
 Ikkunatermostaatti DEVI 528, 6 kpl

Object: HATRICK OY / 11123 / NIKOLAY

Surface resistance: 17 Ω

*Operable Windows*

J Code	W x H (mm)	Electr. H/W	Wire l. (mm)	Uop (V)	Umeas (V)	lop (A)	lmeas (A)	R (Ω)	Rmeas (Ω)	R/A (Ω/m <sup>2</sup> )	Pop (W)	Pop/A (W/m <sup>2</sup> )	Utest (V)	Itest (A)	Tmax (°C)	Td (°C)	OK	WCL
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**SERIES 1**

1. W1	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
2. W2	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
				230	—	1,0	—	235,8	—	—	224							

**SERIES 2**

3. W3	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
4. W4	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
				230	—	1,0	—	235,8	—	—	224							

**SERIES 3**

5. W6	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
6. W6	357 x 2357	W	C / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
				230	—	1,0	—	235,8	—	—	224							

**SERIES 4**

7. W7	357 x 2357	W	B / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
8. W7	357 x 2357	W	B / 5,0	115	—	1,0	—	117,9	—	—	112	142	230	2,0	—	—	—	7,4 / 5,3
				230	—	1,0	—	235,8	—	—	224							

J	W x H	Electr.	Wire l.	Uop	Umeas	lop	lmeas	R	Rmeas	R/A	Pop	Pop/A	Utest	Itest	Tmax	Td	OK	WCL

- wire number  
- glass width and height  
- electrode position  
- wiring point and wire length  
- max operational voltage

Umeas  
lop  
lmeas  
R  
Rmeas

- measured voltage  
- max operational current  
- measured current  
- calculated resistance  
- measured resistance

R/A  
Pop  
Pop/A  
Utest

- measured resistance per square meter  
- max operational power  
- max power per square meter  
- excess voltage test

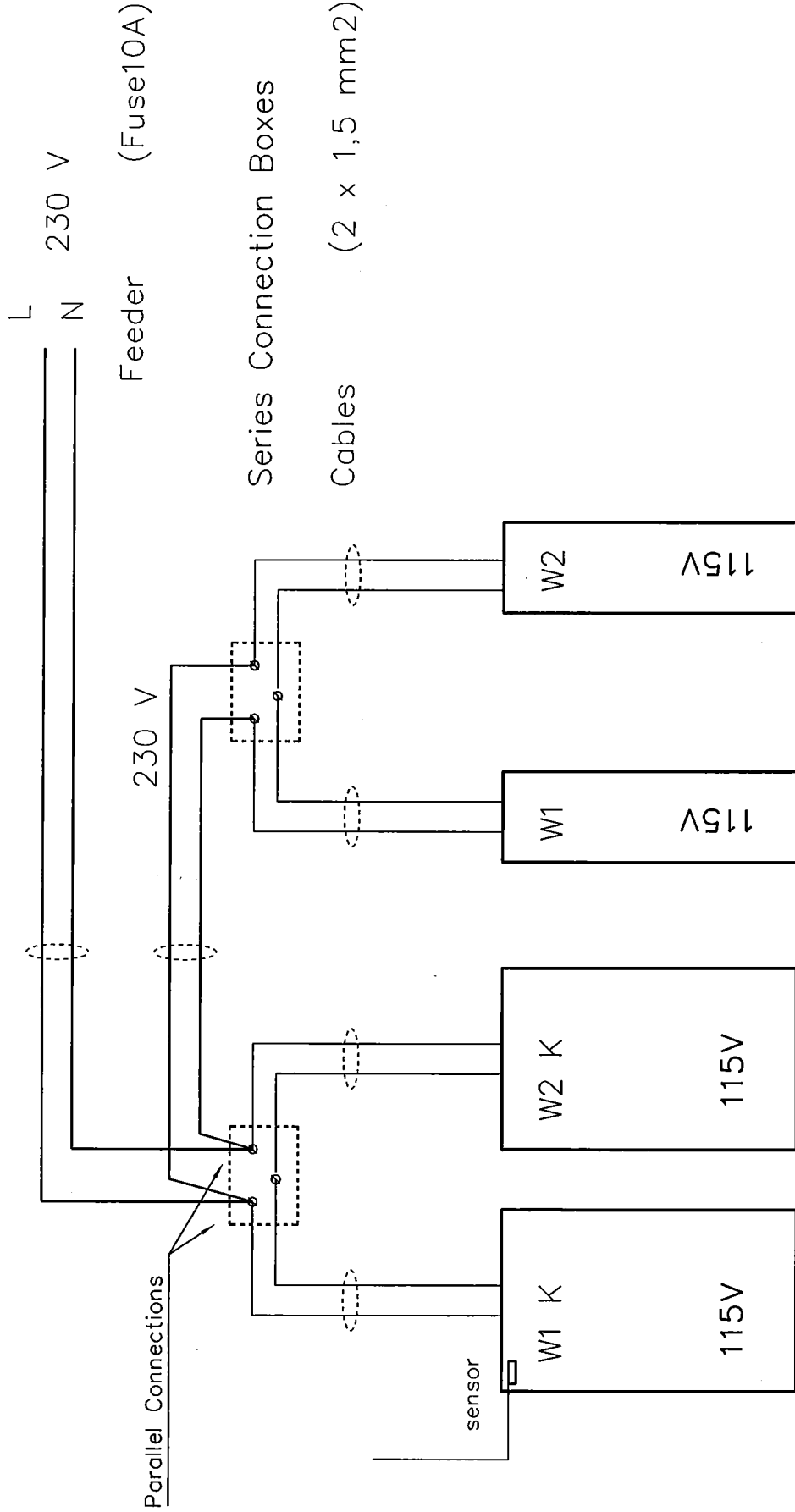
Itest  
Tmax  
Td  
OK  
WCL

- excess current test  
- measured maximum temperature  
- measured temperature difference  
- Sign of approval  
- wire cutting length

Wire

2x1.5mm<sup>2</sup> Double Insulated

# BASIC RULES

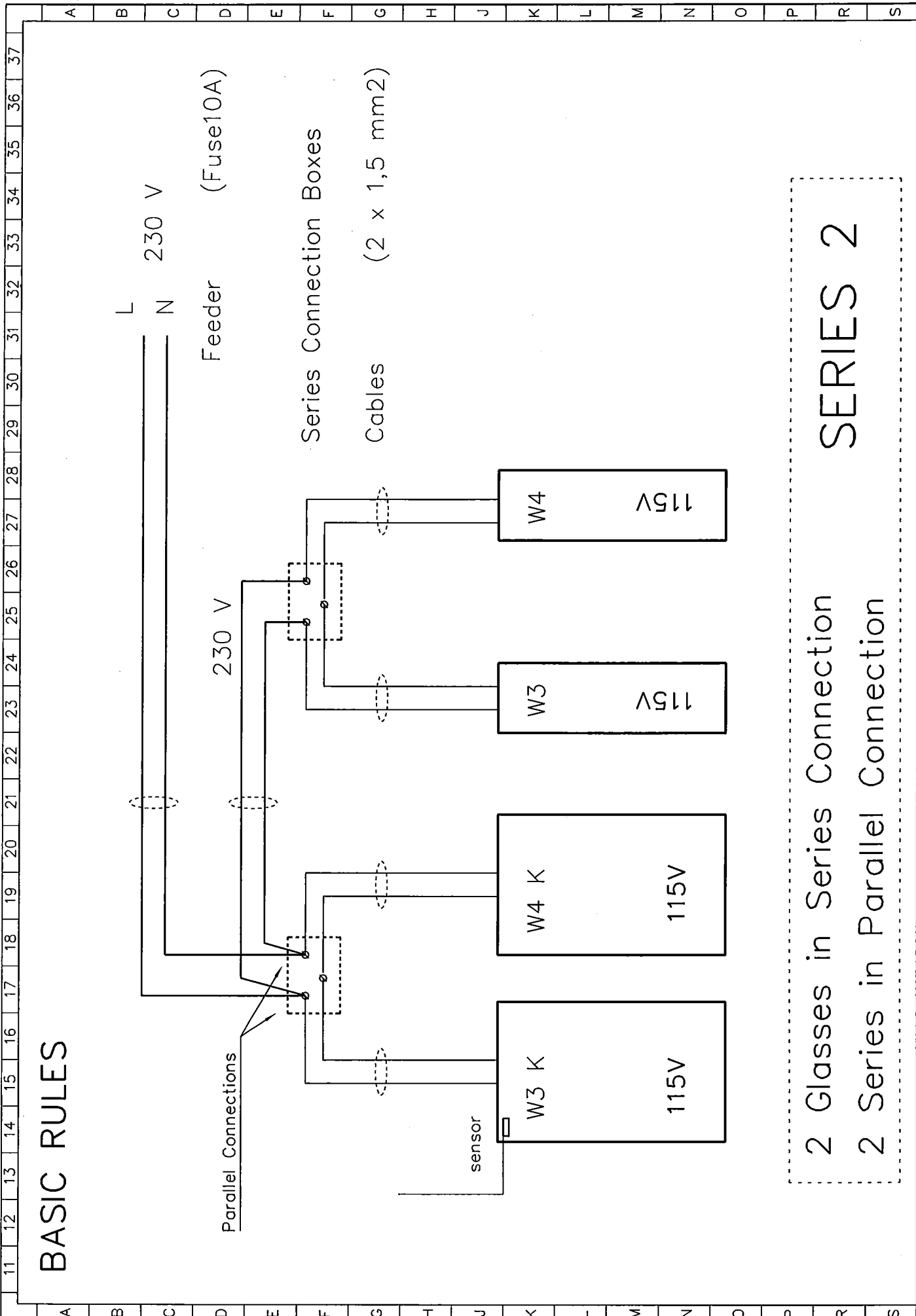


2 Glasses in Series Connection  
 2 Series in Parallel Connection

## SERIES 1

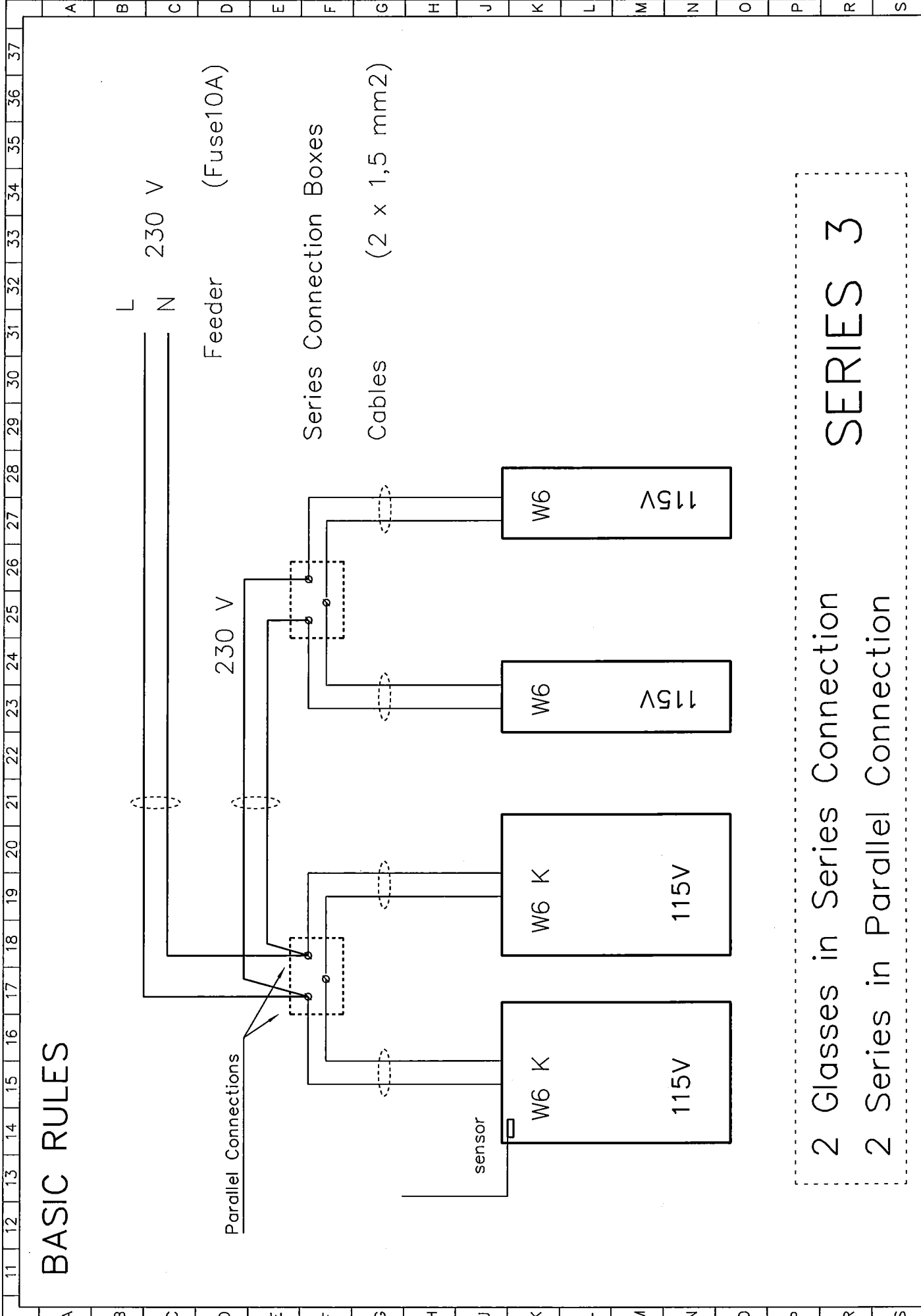
A muttos		© Jorma Salmela		Connections 2 Glasses in Series 2 Series in Parallel Connection		Suunn. U.S. Jorma Salmela		Piiirittunnus		Keskustunnus		Iyönumero 23062008/1	
B muttos						Piiirt. Lehti 1/4						Piiirustunumero	
C muttos												EL 16092011 J S	





A	multos	© Jorma Salmela		C	multos
B	multos			B	multos
D	multos				
E	multos				
F	multos				

SAINT-GOBAIN		SGG EGLAS		Connections 2 Glasses in Series 2 Series in Parallel Connection		Suunn. / Pirt. / Jorma Salmela		Pirtitunnus		Keskustunnus		Iyönnötterö	
						Lehti 1/4						23062008/1	
						Tark.						EL 16092011 J S	



2 Glasses in Series Connection

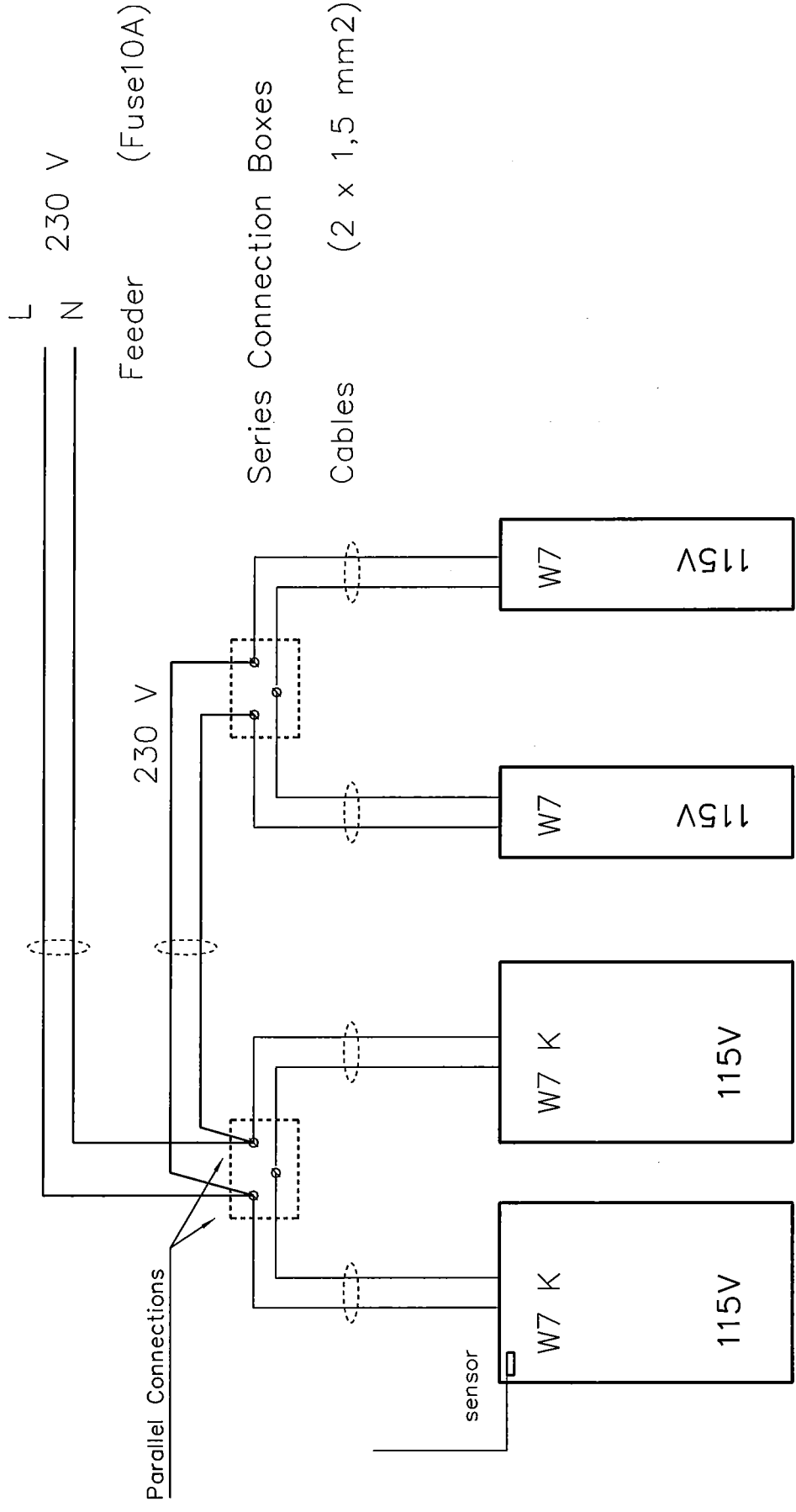
2 Series in Parallel Connection

**SERIES 3**

A mutos	© Jorma Salmela		C mutos
B mutos			
D mutos			
E mutos			
F mutos			

SAINT-GOBAIN		SGG EGLAS		Connections 2 Glasses in Series 2 Series in Parallel Connection		Suunn. / J.S. Pirt. / Jorma Salmela		Piiirittunnus		Keskustunnus		Yönumero 23062008/1	
								Lehti 1/4		Piiirustusnumero		EL 16092011 J S	

# BASIC RULES



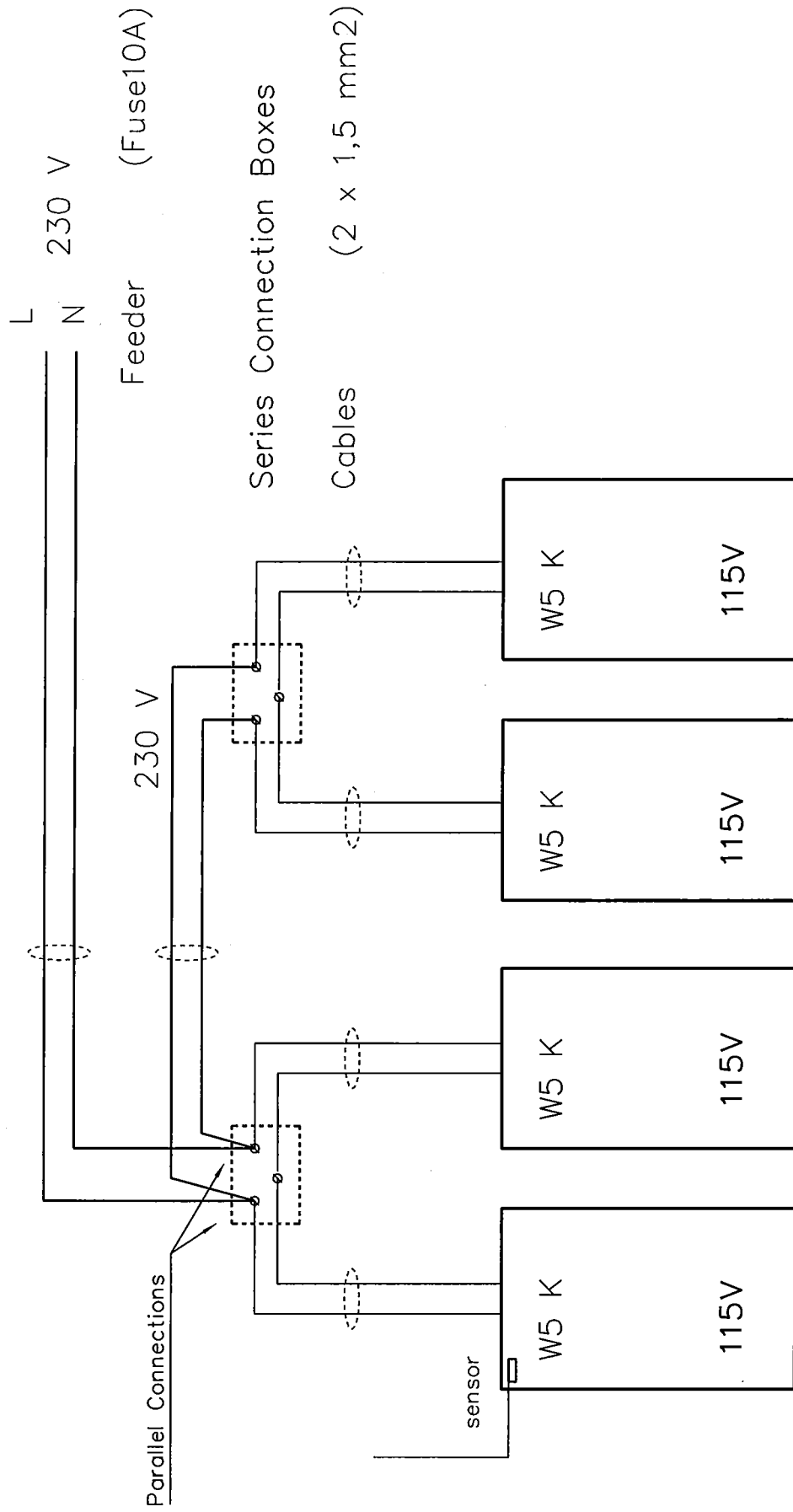
2 Glasses in Series Connection  
 2 Series in Parallel Connection

## SERIES 4

A mutos	© Jorma Salmela		Saunn. / Pirtt. / Jorma Salmela		Pirttunnus	Keskustunnus	lyännumero
B mutos			Pirtt. / Jorma Salmela		Lehti	Piirustusnumero	23062008/1
C mutos			Tark.		1/4		EL 16092011 J S
SGG EGLAS			Connections 2 Glasses in Series 2 Series in Parallel Connection				



# BASIC RULES



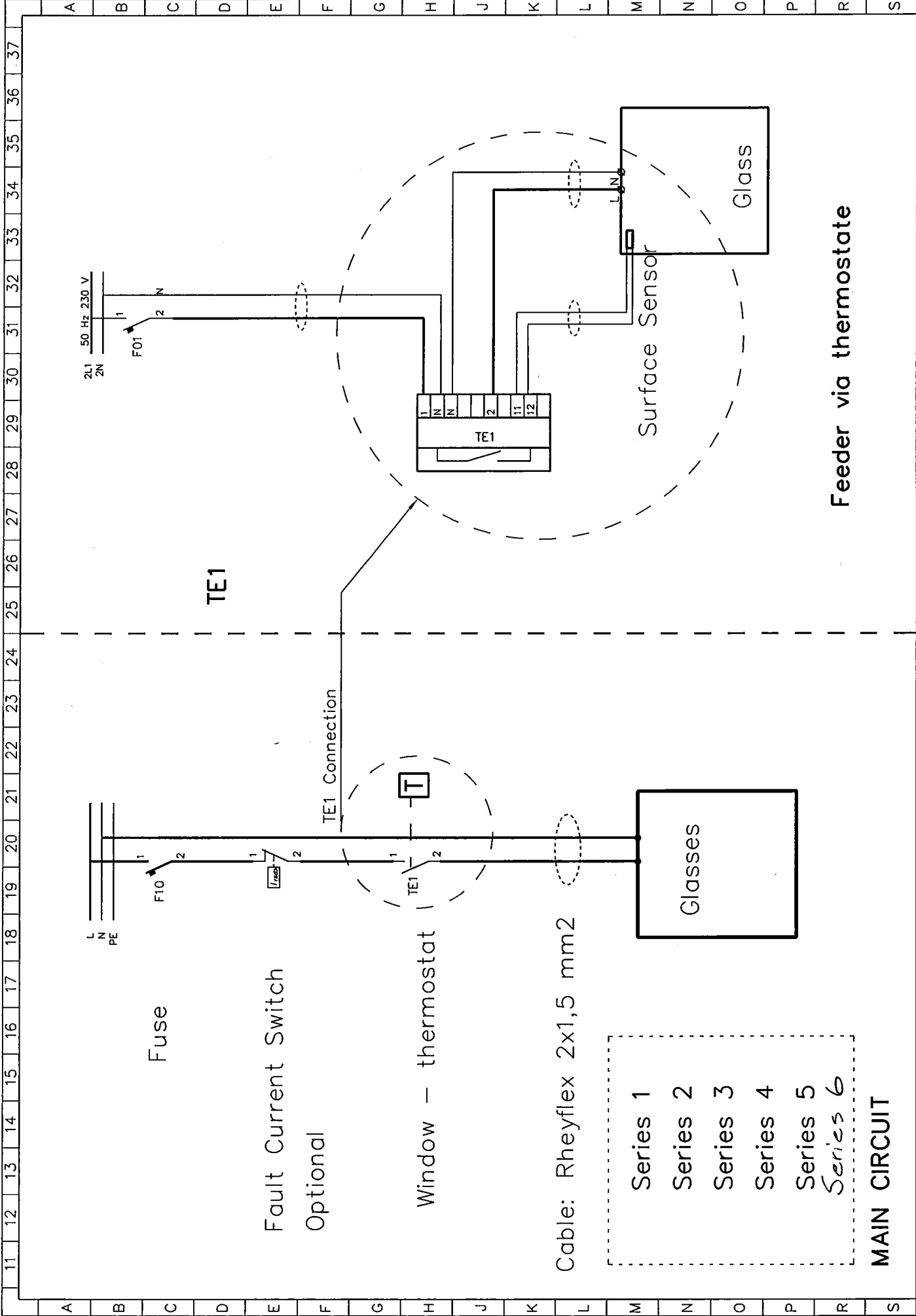
2 Glasses in Series Connection  
 2 Series in Parallel Connection

## SERIES 5+6

A mutos	© Jorma Salmela		Saunn. / J.S.		Piirittunnus	Keskustunnus	lysnnumero
B mutos			Pirtt. / Jorma Salmela		Lehti	Piirustunnus	23062008/1
C mutos			Tark.		1/4		
			Connections		EL 16092011 J S		
			2 Glasses in Series				
			2 Series in Parallel				
			2 Series in Parallel Connection				
			SGG EGLAS				
			SAINT-GOBAIN				

D mutos	
E mutos	
F mutos	





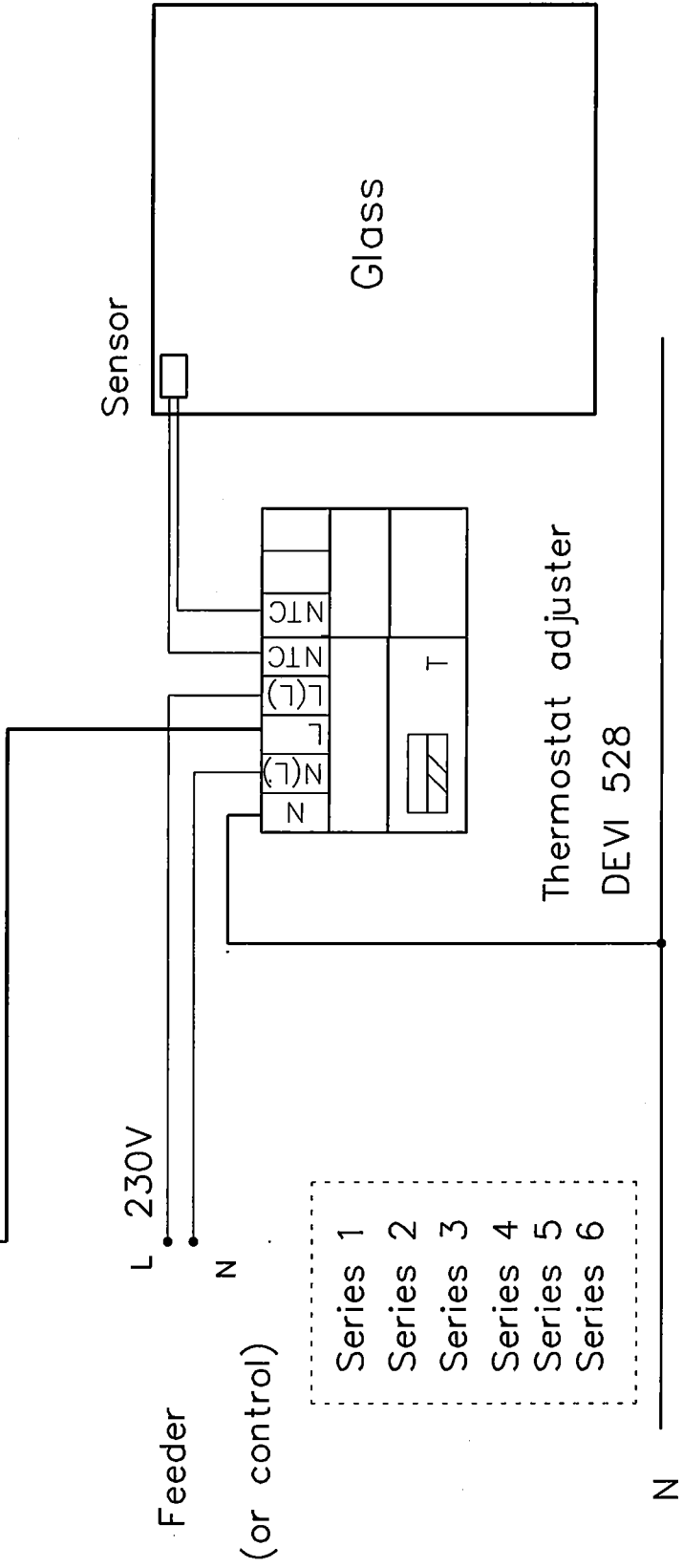
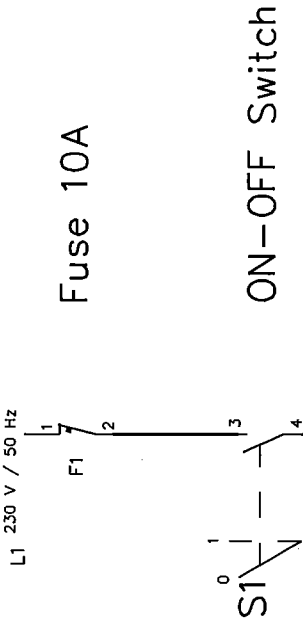
A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S
A muutokset			E muutokset			F muutokset			© Jorma Salmela				C muutokset			

FINNGLASS Ltd		SGG EGLAS		MAIN - and CONTROL CIRCUITS Feeder via Thermostat Basic rule		Suunn. J.S. /2008 Pirtti Jorma Salmela Tark.		Pirtinnummus EBERLE Lehti 1/2		Keskustunnus		Työnnumero	
												EL 25062008JS	

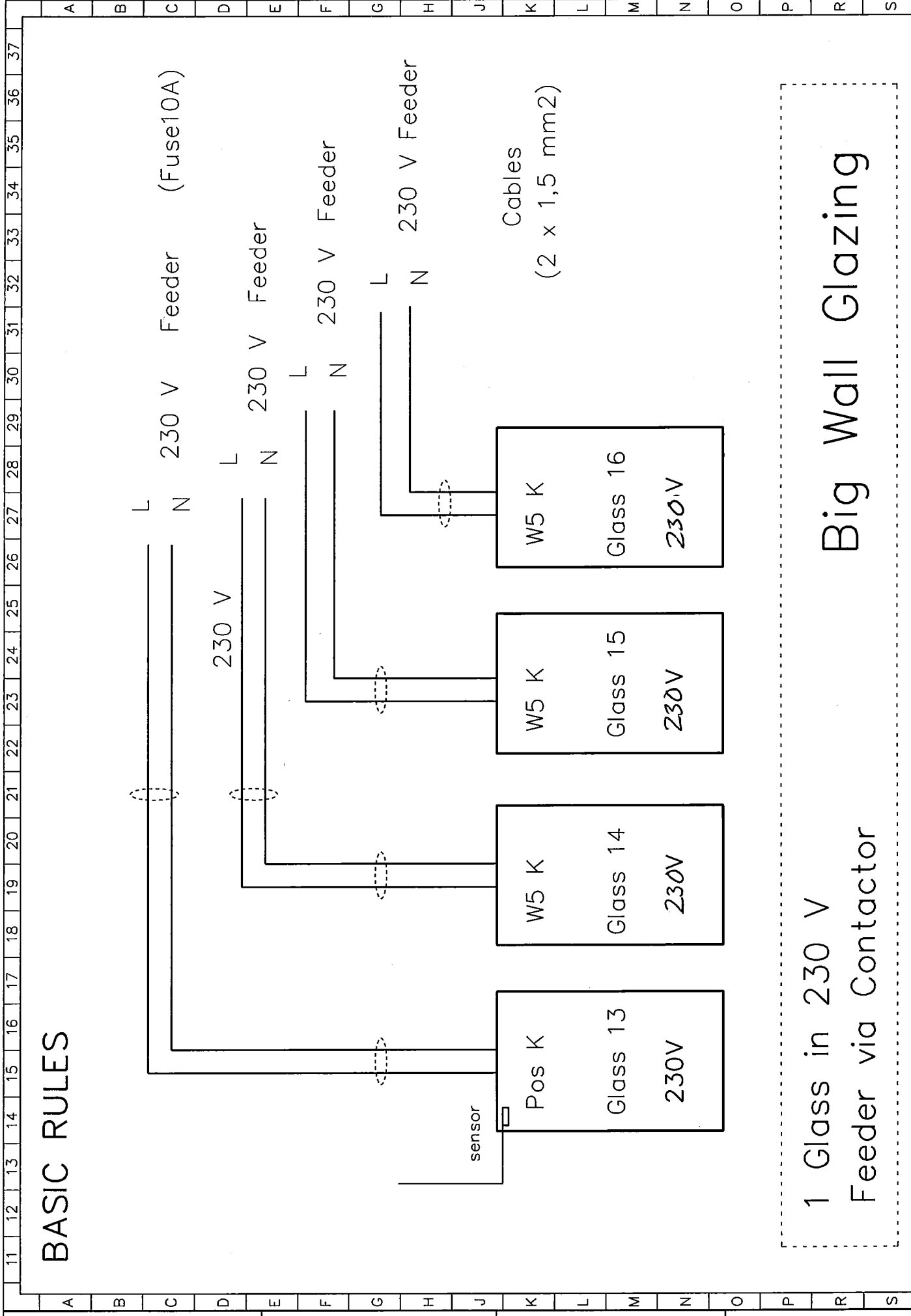
# Window-Thermostat DEVI 528

L = Phase 230V  
 L (load) = Control info  
 N = Neutral  
 NTC = Sensor wire

Terminals DEVI 528

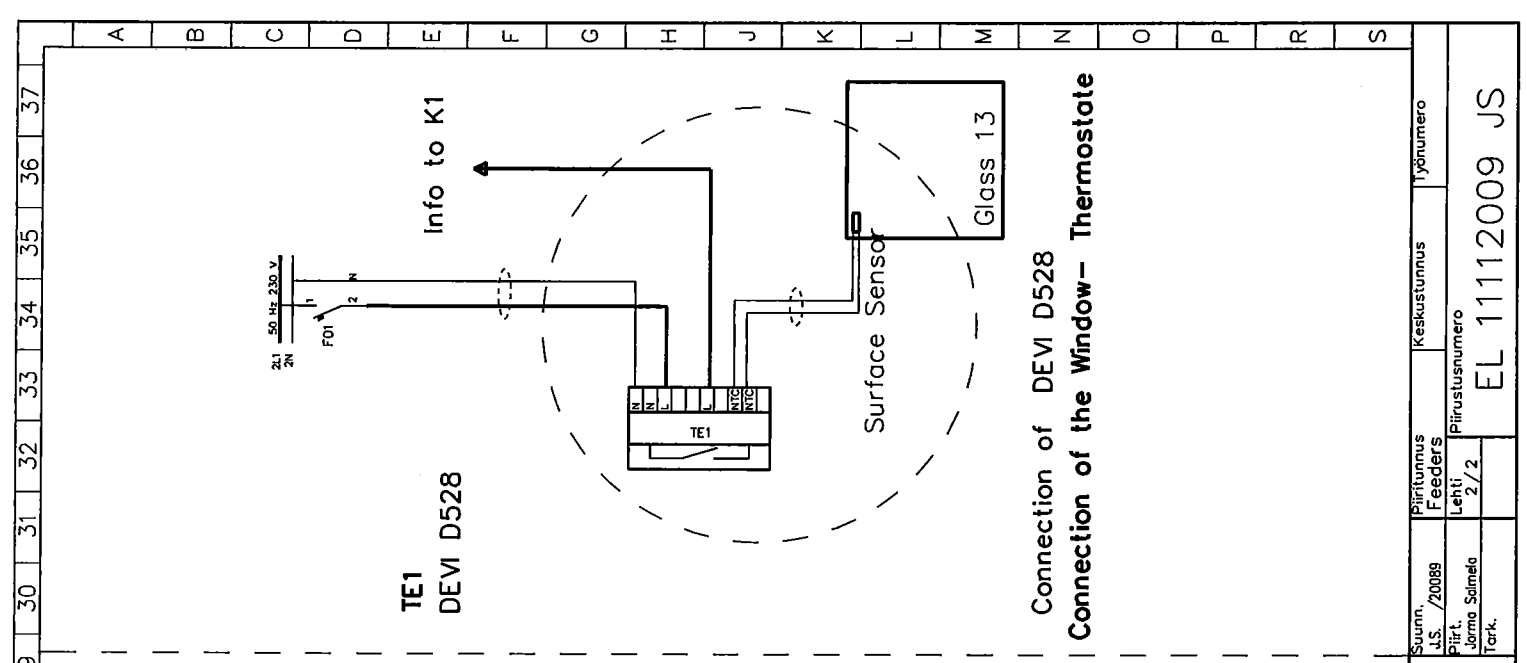
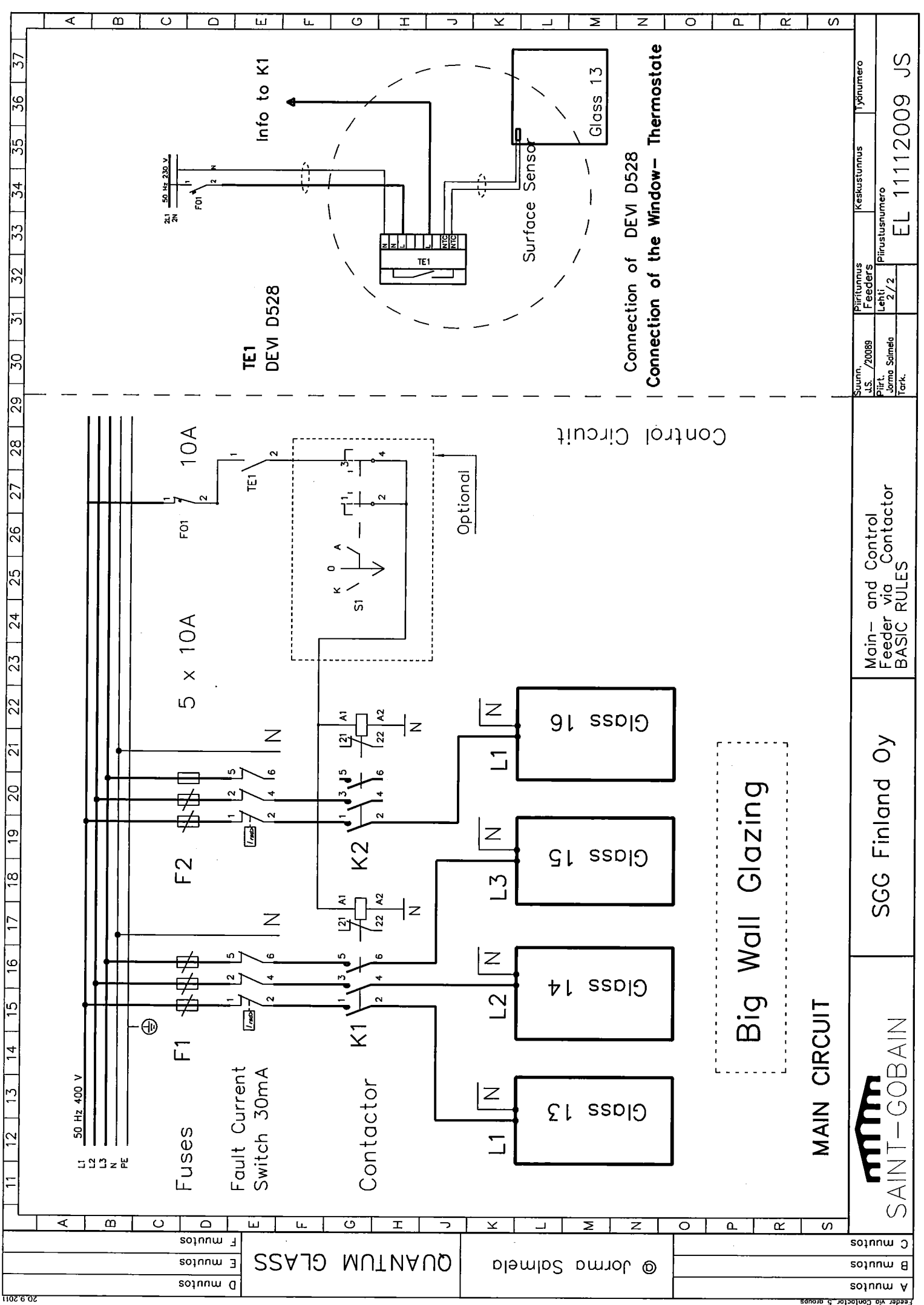


		SGG EGLAS		Control Circuit		Plan. / JS / Draw. / Sheet / Check		Circuit/Unit ID / CONTROL / Drawing no.		Work no.	
SAINT-GOBAIN		SGG EGLAS		Control Circuit		Plan. / JS / Draw. / Sheet / Check		Circuit/Unit ID / CONTROL / Drawing no.		Work no.	
SAINT-GOBAIN		SGG EGLAS		Control Circuit		Plan. / JS / Draw. / Sheet / Check		Circuit/Unit ID / CONTROL / Drawing no.		Work no.	



A mutos	B mutos	C mutos
© Jorma Salmela		
D mutos	E mutos	F mutos

Suunn. / J.S.		Piiirtunnus		Keskustunnus		Yönumero	
Piiirt. Jorma Salmela		Lehti 1/4		Piiirustunnus		23062008/1	
Connections each Glass 230V Feeder via Contactor				EL 16092011 J S			
SGG EGLAS				SAINT-GOBAIN			



Connection of DEVI D528  
 Connection of the Window - Thermostate

Control Circuit

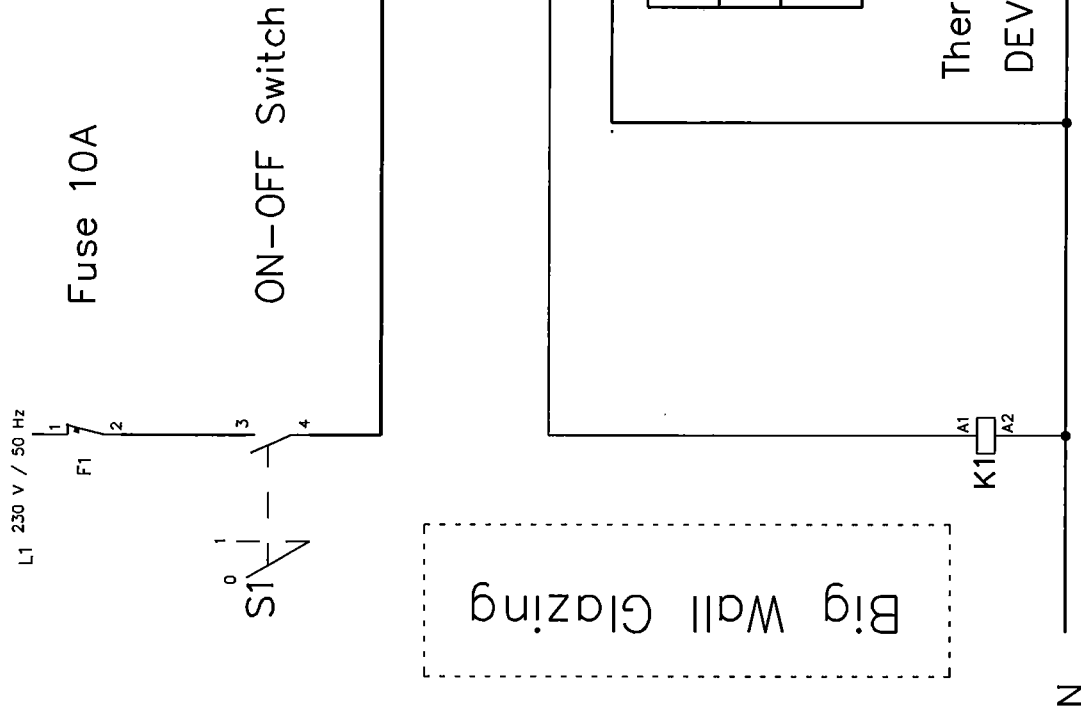
Big Wall Glazing

A murtos		B murtos		C murtos	
D murtos		E murtos		F murtos	
QUANTUM GLASS		© Jorma Salmela		SAINT-GOBAIN	
SGG Finland Oy		Main- and Control Feeder via Contactor BASIC RULES		Piritunnus Feeder's	
Suunn. J.S. /20089		Keskustunnus		Työnumero	
Pirt. Jorma Salmela		Piritunnusnumero		EL 11112009 JS	
Terä.		Lehti 2/2			

# Window-Thermostat DEVI 528

L = Phase 230V  
 L (load) = Control info  
 N = Neutral  
 NTC = Sensor wire

Terminals DEVI 528



A Rev. :		Circuit/Unit ID		Cent.		Work no.	
B Rev. :		CONTROL					
D Rev. :		Sheet		Drawing no.		EL 08082008 JS	
E Rev. :		Draw.		Salmela			
F Rev. :		Check					
Jorma Salmela				Control Circuit			
SAINT-GOBAIN				SGG Finland Oy			