JTL APPLICATION NOTE

WAITROSE CONDENSER SPECIFICATION - DUAL CONDENSERS WITH SPLIT CIRCUIT CONTROL

The following condenser arrangements are based on the Waitrose specification but with increased and/or revised stages to give improved capacity control. For 24, 20 and 16 fans the outputs are connected to interface type IF11 (legacy type IF1/7) as follows

Condenser fan 14 fans	Condenser fan 16, 20 and 20 fans	First interface input/output	Additional interface input/output
1,2	1,2	1	
3,4	3,4	2	
5,6	5,6	3	
7	6,8	4 (split on 14 fan)	
8,9	9,10 (see note)	5 (split on 16 fan)	
10,11	11,12	6 (split on 20 fan)	
12	13,14	7 (split on 24 fan)	
13,14	15,16		1
	17,18		2
	19,20		3
	21,22		4
	23,24		5

Note the Split circuit valve operates with the first fan on the second condenser as shown above

Note on the 16 fan dual condenser connect fan 10 with fan 11 and 12 instead of with fan 9

Note inputs must follow outputs. Normally this requires the fan run status to be connected through a fan fault indication such as an overload relay. If no input is present when an output is indicated as required by the JTL controller a fan fault alarm is given after a short delay.

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WAITROSE CONDENSER SPECIFICATION - DUAL CONDENSERS WITH SPLIT CIRCUIT CONTROL

24 Fans double bank dual condenser

Condenser arrangement

1	2	3	4	5	6
7	8	9	10	11	12

13	14	15	16	17	18
19	20	21	22	23	24

Stages	0	1	2	3	4	5	6	7	8	9	10	11	12
Block %	50	50	50	50	50	50	50	100	100	100	100	100	100
Outputs	0	1-2	1-4	1-6	1-8	1-10	1-12	1-14	1-16	1-18	1-20	1-22	1-24
Capacity %	12	*	*	31	*	*	50	*	*	81	*	*	100

Notes: Item 394 (sequence) set to 4 (CS-C)
Item 390 (stages) set to 12
Capacity from Waitrose specification

20 Fans double bank dual condenser

Condenser arrangement

1	2	3	4	5
6	7	8	9	10

11	12	13	14	15
16	17	18	19	20

Stages	0	1	2	3	4	5	6	7	8	9	10
Block %	50	50	50	50	50	50	100	100	100	100	100
Outputs	0	1-2	1-4	1-6	1-8	1-10	1-12	1-14	1-16	1-18	1-20
Capacity %	12	19	*	*	42	*	*	*	86	92	100

Notes: Item 394 (sequence) set to 3 (CS-b)
Item 390 (stages) set to 10
Capacity from Waitrose specification

JTL APPLICATION NOTE

WAITROSE CONDENSER SPECIFICATION - DUAL CONDENSERS WITH SPLIT CIRCUIT CONTROL

16 Fans double bank dual condenser

Condenser arrangement

1	2	3	4
5	6	7	8

9	10	11	12
13	14	15	16

Stages	0	1	2	3	4	5	6	7	8
Block %	50	50	50	50	50	100	100	100	100
Outputs	0	1-2	1-4	1-6	1-8	1-9	1-12	1-14	1-16
Capacity %	12	22	31	42	50	67	81	92	86

Notes: Item 394 (sequence) set to 3 (CS-b)
Item 390 (stages) set to 8
Capacity from Waitrose specification

14 Fans double bank dual condenser

Condenser arrangement

1	2	3
4	5	6

7	8	9	10
11	12	13	14

Stages	0	1	2	3	4	5	6	7	8
Block %	43	43	43	43	100	100	100	100	100
Outputs	0	1-2	1-4	1-6	1-7	1-9	1-11	1-12	1-16
Capacity %	10	21	33	43	62	73	83	90	100

Notes: Item 394 (sequence) set to 3 (CS-b)
Item 390 (stages) set to 8
Capacity from Waitrose specification

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