

JTL SUCTION PRESSURE OPTIMISER ITEM NUMBERS

OP212
OP224
OP248
OP272

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ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	OP21 OP22 OP24 OP27	OP212 (12 evaps) OP224 (24 evaps) OP248 (48 evaps) OP272 (72 evaps)			
19	Firmware version number					
1	Unit number				0.1 - 899.9	
2. OPTIMISER SETUP						
140	Disable optimiser	0.En 0.dIS	Enabled Disabled		0 - 1	0.En
200	No of evaporators included in optimisation				1 - 72	72
150	Enable override	Off Or.En	Disabled Enabled		0 - 1	Off
157	Refrigerant type	0 22 502 404A 407A 407B 507A 408A nH3	None R22 R502 R404A R407A R407B R507A R408A Ammonia (R717)		0 - 8	R404A
178	Temperature display unit choice	CELS FAhr	Celsius Fahrenheit		0 - 1	CELS
179	Pressure display unit choice	none PSI bAr PASC	Not selected (kPa) p.s.i bar kPa		0 - 3	PSI

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3. PRESSURE CONTROL Note, pressure can be displayed in p.s.i, bar or kPa. This function is set on item 179. Also temperature can be displayed in Celsius or Fahrenheit, this function is set on item 178. Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.						
3.1 LT SYSTEMS						
151	Current optimised pressure setpoint					
152	Maximum optimised pressure setpoint				5.0 to 20.0	10.0
40	Minimum optimised pressure setpoint (initial value)				-5.0 to 20.0	4.0
43	Error deadband temperature (°C)				0.0 - 2.0	1.0
44	Optimising time constant				1 - 240	30
141	Current active optimising evaporator temperature error					
142	Current active optimising evaporator unit number					
202	Current number of evaporators optimising					
205	Number of “worst” evaporators to discard				0 - 20	6
162	Activate forced pressure setpoint	Off F.On	Inactive Active		0 - 1	
161	Forced pressure setpoint				item 40 to item 152	

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3.2 HT SYSTEMS						
153	Current optimised pressure setpoint					
154	Maximum optimised pressure setpoint				15.0 to 60.0	50.0
50	Minimum optimised pressure setpoint (initial value)				-5.0 to 60.0	40
53	Error deadband temperature (°C)				0.0 - 2.0	0.5
54	Optimising time constant				1 - 240	30
143	Current active optimising evaporator temperature error					
144	Current active optimising evaporator unit number					
203	Current number of evaporators optimising					
206	Number of "worst" evaporators to discard				0 - 20	6
164	Activate forced pressure setpoint	Off F.On	Inactive Active		0 - 1	
163	Forced pressure setpoint				item 50 to item 154	
3.3 SATELLITE SYSTEMS						
155	Current optimised pressure setpoint					
156	Maximum optimised pressure setpoint				5.0 to 50.0	10.0
70	Minimum optimised pressure setpoint (initial value)				-5.0 to 50.0	2.0
73	Error deadband temperature (°C)				0.0 - 2.0	1.0
74	Optimising time constant				1 - 240	30
145	Current active optimising evaporator temperature error					
146	Current active optimising evaporator unit number					
204	Current number of evaporators optimising					
207	Number of "worst" evaporators to discard				0 - 20	6
166	Activate forced pressure setpoint	Off F.On	Inactive Active		0 - 1	
165	Forced pressure setpoint				item 70 to item 156	

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4. SORTED EVAPORATOR TEMPERATURE ERRORS						
Note, temperature can be displayed in Celsius or Fahrenheit, this function is set on item 178.						
4.1 LT SYSTEMS						
111	Worst current temperature error					
112	Worst error unit number					
113	2nd worst current error					
114	2nd worst unit number					
115	3rd worst current error					
116	3rd worst unit no					
117	4th worst current error					
118	4th worst unit number					
4.2 HT SYSTEMS						
121	Worst current temperature error					
122	Worst error unit number					
123	2nd worst current error					
124	2nd worst unit number					
125	3rd worst current error					
126	3rd worst unit number					
127	4th worst current error					
128	4th worst unit number					
4.3 SATELLITE SYSTEMS						
131	Worst current temperature error					
132	Worst error unit number					
133	2nd worst current error					
134	2nd worst unit number					
135	3rd worst current error					
136	3rd worst unit number					
137	4th worst current error					
138	4th worst unit number					

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5. PERFORMANCE & ALARMS Note, pressure can be displayed in p.s.i, bar or kPa. This function is set on item 179.						
199	Initialise averaging arrays				1234 only	
197	Date arrays flushed					
198	Year arrays flushed					
5.1 LT SYSTEMS						
41	Low optimising pressure rise alarm tolerance				0.0 - 5.0	1.0
45	Average hourly pressure rise (psi)					
46	Average daily pressure rise (psi)					
47	Average weekly pressure rise (psi)					
48	Average monthly pressure rise (psi) (4 weeks)					
49	Average quarterly pressure rise (psi) (12 weeks)					
5.2 HT SYSTEMS						
51	Low optimising pressure rise alarm tolerance				0.0 - 5.0	1.0
55	Average hourly pressure rise (psi)					
56	Average daily pressure rise (psi)					
57	Average weekly pressure rise (psi)					
58	Average monthly pressure rise (psi) (4 weeks)					
59	Average quarterly pressure rise (psi) (12 weeks)					
5.3 SATELLITE SYSTEMS						
71	Low optimising pressure rise alarm tolerance				0.0 - 5.0	1.0
75	Average hourly pressure rise (psi)					
76	Average daily pressure rise (psi)					
77	Average weekly pressure rise (psi)					
78	Average monthly pressure rise (psi) (4 weeks)					
79	Average quarterly pressure rise (psi) (12 weeks)					

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6. OPTIMISING EVAPORATOR DATA						
The data from all the attached evaporators appears in the following data items. This data is unsorted and appears in the zone order of the network controller. The data is in blocks of 10 items starting at item 210 - 217 for the first associated evaporator the next evaporator is in items 220 - 227 up to the maximum of 72 evaporators on items 920 - 927						
2x0	Evaporator unit number					
2x1	Evaporator suction group (from defrost scheduler OR evaporator) Note: Routing depends on whether a defrost scheduler is installed on the network associated with this optimiser.	Lt Ht SAT	LT HT Satellite			
2x2	Evaporator mode (current data from evaporator)	rEFr dEFr drdn Li.Ho Df.rc Pu.dn Sh.dn	Refrigerating Defrost Drain down Liquid hold off Defrost recovery Pump down Shut down			
2x3	Evaporator setpoint (current data from evaporator)					
2x4	Evaporator temperature (current data from evaporator)					
2x5	Evaporator temperature error (Temperature - Setpoint)					
2x6	Plant data (raw data as downloaded from network controller)					
7. Jnet NETWORK FUNCTIONS						
196	Network defrost arrangement	nonE PrEd dEF.S	None PREDICT defrost scheduler present on network Timed defrost scheduler present on network			

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8. CLOCK CALENDAR						
Note, the time and date can be displayed as standard or daylight saving (summer) time. This choice is made on item 18. When daylight saving is chosen and the controller is connected to a JTL Network Controller supporting daylight saving operation, the change is made automatically to the current EU directive.						
2	Time of day				00:00 - 23:59	
3	Day of week	Sun - Sat	0 = Sunday 1=Monday etc			
4	Date				01:01 - 31:12	
5	Year				v0.00.0	
					1992 - 2022	
					v0.00.1on	
					2007 - 2034	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
9. RESTORE FACTORY DEFAULTS						
9	Set default values selected by Bitswitch	1234	Set default values			
		1066	Write to NVRAM without delay			
10. SYSTEM ALARMS						
80	Group alarm 81 - 88	0 1 - 255	No alarms Check 81 - 88			
81	Override on	CLr Or.On	Off Override on			
82	Optimiser disabled	CLr O.dIS				
83	Low LT optimising pressure alarm	CLr Lo.Lt				
84	Low HT optimising pressure alarm	CLr Lo.Ht				
85	Low Satellite optimising pressure alarm	CLr Lo.St				
88	Unit number corrupted or not set	CLr Un.CF	Clear Fault			

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11. DIAGNOSTIC & TEST FUNCTIONS						
6	Communications speed	4.8 38.4	Kilo baud rate Kilo baud rate			
8	Bitswitch setting (NOT USED)					
99	Test digital displays	CLr SEt	Not active Test active		0 - 1	
10	Processor alarms (11 - 17)	0 1 - 255	No alarms Check 11 - 17			
11	Static RAM fault	CLr rA.Ft	No fault Fault			
12	Program/counter fault	CLr PC.Ft	No fault Fault			
13	Stack pointer fault	CLr SP.Ft	No fault Fault			
14	Background loop fault	CLr bL.Ft	No fault Fault			
15	PROM checksum fault	CLr Pr.Ft	No fault Fault			
16	NVRAM fault	CLr n.Ft	No fault Fault			
17	Instruction TRAP fault	CLr tP.Ft	No fault Fault			

DISPLAY DATA		OP212, OP224, OP248, OP272	
NORMAL DISPLAY			
999.9	Pressure in psi		
--	Not selected		
ALARM TEXT (in descending priority order)			
FAIL	JTL Network communications failure		
oFF	Unit disabled		
Or	Override on		
OTHER TEXT			
JTL	Start-up text		
Lt	LT suction optimised pressure setpoint follows this text		
Ht	HT suction optimised pressure setpoint follows this text		
SAt	Satellite suction optimised pressure setpoint follows this text		
Func	Function mode		
data	Data mode		