JTL VARIABLE SPEED CONDENSER FAN CONTROLLER ITEMS NUMBERS

HP120

CONTENTS

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HP120

ITEM	DESCRIPTION	CODE		CODE MEANING	RANGE	ITEM 9 VALUE
	1. Jnet NETWORK IDENTIFICATION					
0	Unit type	hP12		Unit type		
19	Software version number					
1	Unit number				0.1 - 899.9	
	2. PRESSURES Note: Pressures can be displayed on the maintenance unit in psi, bar or kPa. The choice is made on item 179. All setpoint ranges are shown in psi. Average pressures are averaged over last hour and are updated every 4 minutes.					
179	Pressure display unit choice	1 2 3	PSI bAr PASC	p.s.i. bar kPa	1 - 3	PSI
	2.1 DISCHARGE PRESSURE					
22	Discharge pressure					
148	Average discharge pressure over 1 hour					
52	High discharge pressure alarm level				upto v0.00.4 140 - 300 from v0.00.5 140 - 390	250
51	Low discharge pressure alarm level				100 - 200	120
362	Low discharge pressure alarm delay (mins) (from v0.00.7)				0 - 20	0
122	Discharge pressure transducer selection	OFF d.t.En		Disabled Enabled	0 - 1	Dt.En
422	Full scale transducer value (at 20mA)				300 - 500	300.0
427	Zero scale transducer value (at 4mA)				-15 - 0	0.0
	2.2 LIQUID PRESSURE					
23	Liquid pressure					
149	Average liquid pressure over 1 hour					
383	Liquid pressure differential					
384	Minimum liquid pressure differential				0 - 15.0	10.0
123	Liquid pressure transducer selection	OFF L.t.En		Disabled Enabled	0 - 1	OFF
423	Full scale transducer value (at 20mA)				300 - 500	300.0
428	Zero scale transducer value (at 4mA)				-15 - 0	0.0

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3. DISCHARGE PRESSURE CONTROL The discharge pressure setpoint can float if item 363 is set to a non zero value. The discharge pressure is item controlled to the appropriate temperature depending on the outside ambient temperature. Note temperatures can be displayed on the Maintenance Unit in celsius or fahrenheit. The choice is made on item 178.						
178	Temperature display unit choice	0 1	CELS FAhr	Celsius fahrenheit	0 - 1	CELS
50	Discharge pressure set point				100 - 250	150
350	Maximum discharge pressure set point				upto v0.00.4 175 - 250 from v0.00.5 175 - 380	200
351	Discharge pressure cut out (from v0.00.7) (depends on item 352 being >0)				100 - 200	140
352	Minimum fan speed (%) (from v0.00.7)				0 - 25	0
899	Outside temperature					
363	Floating discharge temperature differential	0.0		Function disabled	0 - 15	0.0
364	Effective minimum discharge temperature					
365	Condenser operating temperature					
370	Optimised discharge pressure set point					
386	Control pressure selection	0 1	diS.P Li.P	Discharge pressure Liquid pressure	0 - 1	diS.P
395	Analogue fan speed gain				upto v0.00.6 5 - 50 from v0.00.7 0 - 100	10
54	Condenser control time constant	from v0.00.7			upto v0.00.6	30
		0		Disables integral term	1 - 250 from v0.00.7 0 - 250	
55	Discharge pressure to reduce capacity				upto v0.00.4 140 - 320 from v0.00.5 140 - 400	300
192	Integral term (I)					
194	Proportional term (P) (from v0.00.7)					

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ITEM	**DESCRIPTION**	**CODE**		**CODE MEANING**	**RANGE**	**ITEM 9 VALUE**
157	Refrigerant type	3 4 5 6 7 11 13	404A 407A 407b 507 408 407F 407C	R404A R407A R407B R507 R408A R407F R407C	up to v0.00.2 3 - 6 v0.00.3 3 - 7 from v0.00.4 3 - 11 from v0.00.7 3 - 13	R407A
4. CONDENSER CONTROL Forced functions remain forced if the Maintenance Unit remains plugged in. They are automatically cancelled 30 minutes after the Maintenance Unit is unplugged.						
368	Maximum speed at night (%)				50 - 100	100
369	Select network timer for nightime operation	0 1 - 8		Disabled Timer number	0 - 8	0
391	Number of condenser steps running				up to v0.00.6 0 - 127 from v0.00.7 0.0 - 100.0	
397	Number of condenser steps in backup analogue mode				up to v0.00.6 0 - 127 from v0.00.7 0.0 - 100	 127 100.0
366	Full circuit enable level (%)				0 - 100	80
367	Full circuit disable level (%)				0 - 100	0
392	Forced number of condenser steps				up to v0.00.6 0 - 127 from v0.00.7 0.0 - 100.0	
393	Input status	In- - - - Fn plus any combination of above		Inverter ok Fan ok		

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5. INPUTS AND OUTPUTS						
20	Operating mode	oFF Auto		Manual Automatic		
171	Inverter fault (IP-1)	Hty In.Ft		Inverter ok inverter fault		
172	Fan fault (IP-2)	Hty Fn.Ft		Fans ok Fan fault		
173	Plant fault (IP-3)	Hty PL.Ft		Plant Plant fault		
174	Auto/manual (IP-4)	OFF Auto		Manual controller dormant Auto mode		
166	Relay 2 function (v0.00.4 on)	SP.ct G.A.En		Split circuit General Alarm	0 - 1	SP.ct
161	Run inverter (LN/LD-1)	I.off I.run		Inverter off Run inverter		
162	Condenser split circuit (LN/LD-2)	PArt FuLL		Part circuit Full circuit		
165	Alarms healthy output (LN/LD-2) (v0.00.4 on)	oFF no.AL		Alarm Condition No Alarms		
163	Watchdog output (LN/LD-3)	OFF On		Watchdog fail Watchdog healthy		
164	High discharge pressure (LN/LD-4)	clr HidP		Discharge ok High pressure		
6. DISPLAY FUNCTIONS						
179	Pressure display unit choice	1 2 3	PSI bAr PASC	p.s.i. bar kPa	1 - 3	PSI
189	Backlight control (from v0.00.7)	0 1 2 3	B.oFF BL.on BL.F.F BL.n.F	Backlight off Backlight on Backlight off, flashes for alarm Backlight on, flashes for alarm		B.oFF
7. 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				2015 - 2034	
18	Daylight saving enable	Stnd dAY.S		Standard time Daylight saving time	0 - 1	Stnd

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8. RESTORE FACTORY DEFAULTS					
966	virtual bitswitch setting (v0.00.1 on)		unused		
9	Set default values To set the factory defaults into the memory of the controller, set item 9 to the set default value of "1234". This should be done on initial commissioning of the unit or when the unit is being installed as a replacement part.	1234 1066	Load default settings Write to NVRAM immediately		
9. RESTORE PARAMETERS FROM NETWORK (from v0.00.1) To restore the data from the network first set the virtual bitswitch on item 966 and the appropriate unit number on item 1. Then check item 965 to see if this facility is available on the network. The information on item 965 is received from a network broadcast every few minutes. If the restore parameter facility is available and operational then item 965 will be set to a non zero number e.g. 2. To request restore parameters set item 964 to 1234. Item 963 displays parameters restore progress. When all parameters are downloaded item 964 is cleared to 0.					
965	Master database port	0 1 - 4	Not in use NC port no		
964	Set restore parameters from network	1234	Request restore		
963	Parameter restore progress	rdy dnl.r din.p dnl.c FA.IL	Restore function possible Restore requested Restore in progress Restore complete Restore fault		
959	Requested template	0 1-9999	As commissioned Template number	0 - 9999	
10. SYSTEM ALARMS					
80	Group alarm 81 - 88 (see display data)	0 1 - 255	No alarms Check 81 - 88		
83	Low discharge pressure	CLr Lo.dP	No fault Fault		
84	High discharge pressure	CLr Hi.dP	No fault Fault		
88	Condenser fault	CLr Fn.Ft	No fault Fault		
90	Group alarm 91 - 98 (see display data)	0 1 - 255	No alarms Check 91 - 98		
91	Pressure transducer fault	CLr Pt.Ft	No fault Fault		
910	Group alarms 910 - 918 (see display data)	0 1 - 255	No alarms Check 911 - 918		
915	Plant fault	CLr P.FLt	No fault Fault		
916	Low liquid pressure	Clr LoLP	No fault Fault		

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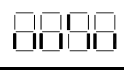
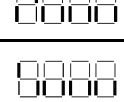
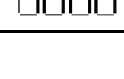
ITEM	**DESCRIPTION**	**CODE**	**CODE MEANING**	**RANGE**	**ITEM 9 VALUE**
11. DIAGNOSTIC & TEST FUNCTIONS					
6	JTL Network communications speed	4.8	Kilo Baud		
7	Communications method	HALF	2 wire		
954	Current zone no (from v0.00.6)				
967	Latest unit no polled on zone				
973	Latest polling interval This time shows the polling interval between the last two successful network awake messages to this unit.	min:sec			
974	Time since last awake message	min:sec			
975	Network receive timer Each time a message is read correctly the timer is set to 10 it counts down. If the timer reaches 0 then the communications module is reset.	seconds	(counts down to 0)		
976	Network receive bad character counter. The counter counts down from a preset number. When the counter reaches 0 the communications module is reset.		(counts down to 0)		
977	Transmit control line status for the operation of the Jnet network communications.	Hi Lo	Transmit Receive		
99	Test digital displays	CLr SEt	Not active Test active	0 - 1	
100	Test inputs	- - - - 1 - - - - 2 - - - - 3 - - - - 4	No inputs Input 1 on Input 2 on Input 3 on Input 4 on		
199	Test relay outputs	clr SEt	Not active Active	0 - 1	
411	Transducer 1 reading (v0.00.5 on)				
412	Transducer 2 reading (v0.00.5 on)				
10	Processor alarms (11 - 17) (see display data)	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	HP120
NORMAL DISPLAY	
999.9	Pressure in psi
--	Not selected
ALARM TEXT (in descending priority order)	
P.FLd	Plant failed
Hi.dP	High discharge pressure
FAn	Condenser fan problem
OTHER TEXT	
JTL	Start-up text

GRAPHICAL DISPLAY OF BIT DATA (FROM V0.00.7)				
Graphical display of bit data used on items where the data was shown previously as a decimal value	bit	Graphic	Value	Note: Where the data is shown as a decimal value the meaning is the sum of the associated value e.g. bits 2 and 5 set would be displayed as 18 (16+2)
	None		0	
	1		1	
	2		2	
	3		4	
	4		8	
	5		16	
	6		32	
	7		34	
	8		128	