Modbus Register Map: InRow ACRD60x / ACRC60x

Part number: 990-5786A

Notes:

1. 16-bit registers (INT16, UINT16, ENUM) are transmitted MSB first (i.e., big-endian).
2. INT32 and UINT32 are most-significant word in n+0, least significant word in n+1 (i.e. big-endian).
3. Reads can be performed with function codes 3, or 4. Writes can be performed with function code 16, or with function code 6 to registers with length 1.
4. Modbus serial RTU and Modbus over TCP is supported.
5. Signed numbers (INT16, INT32, ENUM) are twos-compliment
6. Status bits are atomic within a single Modbus register. User should not look for consistency across multiple registers, only within a single register.
7. Strings are two characters per register, first character in high-order byte, second character in low-order byte. Printable ASCII only.
8. When writing an ASCII string the null terminator must be included.
9. Single-register reads of reserved or undefined registers will return an error. Block reads which begin with a valid register will not return an error but will return zeros for undefined registers.
10. Data Type column:
    - "INT16" = signed 16-bit integer,
    - "UINT16" = unsigned 16-bit integer,
    - "INT32" = signed 32-bit integer,
    - "UINT32" = unsigned 32-bit integer,
    - "ENUM" = signed 16-bit integer which maps to a defined list of states,
    - "ASCII" = the printable ASCII subset from 0x20 - 0x7E,
    - "STREAM" = raw data ranging from 0x00 - 0xFF.
11. "Absolute Starting Register Address" = 0 (the column heading used in this table) is equivalent to "Register 40001" in Modicon terminology, which is address zero when transmitted over the wire.
12. Accesses to items before data is available will result in an invalid address error.
13. Response Timeout Guide: A single register response is typically less than 100 ms; however, reading a large number of registers may take 2 seconds or more. If timeouts occur, reduce the number of registers in each request or increase the response timeout.

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
Group Data (US)							
40001	0000	0	Overall Status	R	1	ENUM	0 = OK State; 1 = Info State; 2 = Warning State; 3 = Critical State
40002	0001	1	Group Cool Output	R	2	UINT32	(Tenths) kW
40004	0003	3	Group Cool Demand	R	2	UINT32	(Tenths) kW
40006	0005	5	Group Humidify Output	R	2	UINT32	%
40008	0007	7	Group Humidify Demand	R	2	UINT32	%
40010	0009	9	Group Dehumidify Output	R	2	UINT32	%
40012	000B	11	Group Dehumidify Demand	R	2	UINT32	%
40014	000D	13	Group Reheat Output	R	2	UINT32	%
40016	000F	15	Group Reheat Demand	R	2	UINT32	%
40018	0011	17	Group Airflow	R	2	UINT32	(Tenths) CFM
40020	0013	19	Group Maximum Rack Inlet Temperature	R	2	UINT32	(Tenths) F
40022	0015	21	Group Minimum Rack Inlet Temperature	R	2	UINT32	(Tenths) F
40024	0017	23	Cool Setpoint	R/W	2	UINT32	(Tenths) F
40026	0019	25	Humidify Setpoint	R/W	2	UINT32	(Tenths) %RH
40028	001B	27	Dehumidify Setpoint	R/W	2	UINT32	(Tenths) %RH
40030	001D	29	Dehumidify Deadband	R/W	2	UINT32	%RH
40032	001F	31	Reheat Setpoint	R/W	2	UINT32	(Tenths) F
40034	0021	33	Supply Air Setpoint	R/W	2	UINT32	(Tenths) F
40036	0023	35	Number of Units in Group	R/W	2	UINT32	Unitless
40038	0025	37	Configuration Type	R	1	ENUM	0 = RACS; 1 = HACS; 2 = In-Row; 3 = CACS
40039	0026	38	Percent Glycol	R	2	UINT32	%
40041	0028	40	Cool Gain 'P'	R	2	UINT32	(Hundredths) Unitless
40043	002A	42	Cool Reset Rate 'I'	R	2	UINT32	(Hundredths) Unitless
40045	002C	44	Cool Derivative 'D'	R	2	UINT32	(Hundredths) Unitless
40047	002E	46	Humidify Sensitivity Band	R/W	2	UINT32	%RH
40049	0030	48	Reheat Gain (P)	R	2	UINT32	(Hundredths) Unitless
40051	0032	50	Reheat Integral (I)	R	2	UINT32	(Hundredths) Unitless
40053	0034	52	Reheat Derivative (D)	R	2	UINT32	(Hundredths) Unitless
40055	0036	54	Fan Speed Preference	R/W	1	ENUM	0 = Low; 1 = Med-Low; 2 = Med; 3 = Med-High; 4 = High
40056	0037	55	Air Flow Control	R/W	1	ENUM	0 = Automatic; 1 = Manual
40057	0038	56	Number of Backup Units	R/W	2	UINT32	Unitless
40059	003A	58	Number of Precision Units	R/W	2	UINT32	Unitless
40061	003C	60	Load Assist Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
40062	003D	61	Run-Time Balancing Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
40063	003E	62	Maximum Fan Speed	R/W	2	UINT32	%

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
40065	0040	64	Altitude	R/W	2	UINT32	ft
40067	0042	66	Number of Active Flow Controllers	R/W	2	UINT32	Unitless
40069	0044	68	Active Flow Control Bias	R	1	ENUM	0 = Positive; 1 = Slightly Positive; 2 = Zero; 3 = Slightly Negative; 4 = Negative
40070	0045	69	Active Flow Control Status	R	1	ENUM	0 = Under; 1 = Okay; 2 = Over; 3 = NA
40071	0046	70	Active Flow Control Lamp Test	R/W	1	ENUM	0 = Off; 1 = On
40072	0047	71	Dew Point Temperature	R	2	INT32	(Tenths) F
Unit Data (US)							
40129	0080	128	Name	R/W	21	ASCII	N/A
40150	0095	149	Location	R/W	21	ASCII	N/A
40171	00AA	170	Unit ID	R	2	UINT32	Unitless
40173	00AC	172	Model Number	R	10	ASCII	N/A
40183	00B6	182	Serial Number	R	10	ASCII	N/A
40193	00C0	192	Firmware Revision	R	4	ASCII	N/A
40197	00C4	196	Hardware Revision	R	4	ASCII	N/A
40201	00C8	200	Manufacturing Date	R	6	ASCII	N/A
40207	00CE	206	Operating Mode	R	1	ENUM	0 = Standby; 1 = On; 2 = Idle; 3 = Prestart; 4 = Backup; 5 = Load Assist
40208	00CF	207	Cool Output	R	2	UINT32	(Tenths) kW
40210	00D1	209	Cool Demand	R	2	UINT32	(Tenths) kW
40212	00D3	211	Humidify Output	R	2	UINT32	%
40214	00D5	213	Humidify Demand	R	2	UINT32	%
40216	00D7	215	Dehumidify Output	R	2	UINT32	%
40218	00D9	217	Dehumidify Demand	R	2	UINT32	%
40220	00DB	219	Reheat Output	R	2	UINT32	%
40222	00DD	221	Reheat Demand	R	2	UINT32	%
40224	00DF	223	Unit Maximum Rack Inlet Temperature	R	2	UINT32	(Tenths) F
40226	00E1	225	Supply Air Temperature	R	2	UINT32	(Tenths) F
40228	00E3	227	Return Air Temperature	R	2	UINT32	(Tenths) F
40230	00E5	229	Supply Humidity	R	2	UINT32	(Tenths) %RH
40232	00E7	231	Return Humidity	R	2	UINT32	(Tenths) %RH
40234	00E9	233	Airflow	R	2	UINT32	(Tenths) CFM
40236	00EB	235	Fan Speed	R	2	UINT32	(Tenths) %
40238	00ED	237	Active Power Source	R	1	ENUM	0 = Primary; 1 = Secondary
40239	00EE	238	Rack Inlet Temperature 1	R	2	UINT32	(Tenths) F
40241	00F0	240	Rack Inlet Temperature 2	R	2	UINT32	(Tenths) F
40243	00F2	242	Rack Inlet Temperature 3	R	2	UINT32	(Tenths) F
40245	00F4	244	Filter Differential Pressure	R	2	UINT32	(Hundredths) "WC
40247	00F6	246	RESERVED	N/A	2	N/A	
40249	00F8	248	Humidifier Current	R	2	UINT32	(Tenths) A
40251	00FA	250	Humidifier Water Conductivity	R	2	UINT32	uS/cm
40253	00FC	252	CW Valve Position	R	2	UINT32	%
40255	00FE	254	CW Fluid Flow	R	2	UINT32	(Tenths) GPM
40257	0100	256	Entering Fluid Temperature	R	2	UINT32	(Tenths) F
40259	0102	258	Leaving Fluid Temperature	R	2	UINT32	(Tenths) F
40261	0104	260	Suction Pressure	R	2	UINT32	(Tenths) psi
40263	0106	262	Discharge Pressure	R	2	UINT32	(Tenths) psi
40265	0108	264	VFD Speed	R	2	UINT32	(Tenths) Hz
40267	010A	266	VFD Power	R	2	UINT32	(Hundredths) kW
40269	010C	268	VFD Motor Voltage	R	2	UINT32	(Tenths) V
40271	010E	270	VFD Motor Current	R	2	UINT32	(Hundredths) A
40273	0110	272	VFD DC Link Voltage	R	2	UINT32	V
40275	0112	274	VFD Heat Sink Temperature	R	2	UINT32	(Tenths) F
40277	0114	276	VFD Control Card Temperature	R	2	UINT32	(Tenths) F
40279	0116	278	VFD Alarm Status	R	2	STREAM	N/A
40281	0118	280	VFD Warning Status	R	2	STREAM	N/A

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
40283	011A	282	Air Filter Run Hours	R	2	UINT32	hr
40285	011C	284	Fan 1 Run Hours	R	2	UINT32	hr
40287	011E	286	Fan 2 Run Hours	R	2	UINT32	hr
40289	0120	288	Fan 3 Run Hours	R	2	UINT32	hr
40291	0122	290	Compressor Run Hours	R	2	UINT32	hr
40293	0124	292	Humidifier Run Hours	R	2	UINT32	hr
40295	0126	294	Heater 1 Run Hours	R	2	UINT32	hr
40297	0128	296	Heater 2 Run Hours	R	2	UINT32	hr
40299	012A	298	Heater 3 Run Hours	R	2	UINT32	hr
40301	012C	300	Condensate Pump Run Hours	R	2	UINT32	hr
40303	012E	302	Air Filter Service Interval	R/W	2	UINT32	weeks
40305	0130	304	Air Filter Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40306	0131	305	Humidifier Service Alarm Interval	R/W	2	UINT32	weeks
40308	0133	307	Humidifier Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40309	0134	308	Heater Service Alarm Interval	R/W	2	UINT32	weeks
40311	0136	310	Heater Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40312	0137	311	Compressor Service Alarm Interval	R/W	2	UINT32	weeks
40314	0139	313	Compressor Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40315	013A	314	Fans Service Alarm Interval	R/W	2	UINT32	weeks
40317	013C	316	Fans Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40318	013D	317	Condensate Pump Service Alarm Interval	R/W	2	UINT32	weeks
40320	013F	319	Condensate Pump Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40321	0140	320	Rack Inlet Temperature High Threshold	R/W	2	UINT32	(Tenths) F
40323	0142	322	Supply Air Temperature High Threshold	R/W	2	UINT32	(Tenths) F
40325	0144	324	Return Air Temperature High Threshold	R/W	2	UINT32	(Tenths) F
40327	0146	326	CW Entering Temp High Threshold	R/W	2	UINT32	(Tenths) F
40329	0148	328	Return Humidity High Threshold	R/W	2	UINT32	(Tenths) %RH
40331	014A	330	Return Humidity Low Threshold	R/W	2	UINT32	(Tenths) %RH
40333	014C	332	Startup Delay	R/W	2	UINT32	sec
40335	014E	334	Cool Capacity	R/W	1	ENUM	0 = Automatic; 1 = Maximum
40336	014F	335	Idle on Leak Detect	R/W	1	ENUM	0 = Yes; 1 = No
40337	0150	336	Standby Input Normal State	R/W	1	ENUM	0 = Open; 1 = Closed
40338	0151	337	Standby Input State	R	1	ENUM	0 = Open; 1 = Closed
40339	0152	338	Output Normal State	R/W	1	ENUM	0 = Open; 1 = Closed
40340	0153	339	Output State	R	1	ENUM	0 = Open; 1 = Closed
40341	0154	340	Output Source	R	1	ENUM	0 = Any Alarm; 1 = Only Critical Alarms
40342	0155	341	Humidify Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40343	0156	342	Humidifier Control	R/W	1	ENUM	1 = Auto; 2 = Drain
40344	0157	343	Dehumidify Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
40345	0158	344	Reheat Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
40346	0159	345	Heat Assist Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
40347	015A	346	Power Source	R/W	1	ENUM	0 = Single; 1 = Dual
40348	015B	347	Unit Role Override	R/W	1	ENUM	0 = Automatic; 1 = Forced On
40349	015C	348	System Run Hours	R	2	UINT32	hr
40351	015E	350	Secondary Power Feed Capability	R/W	1	ENUM	0 = FullPower; 1 = ReducedPower
40352	015F	351	Bypass Valve Position	R/W	1	ENUM	0 = Closed; 1 = Open
40353	0160	352	Air Filter Type	R/W	1	ENUM	0 = Standard; 1 = High Efficiency
Alarms							
40513	0200	512	Internal Communication Error	R	1	ENUM	0 = Clear; 1 = Alarm
40514	0201	513	A-link isolation relay fault exists	R	1	ENUM	0 = Clear; 1 = Alarm
40515	0202	514	External communication fault	R	1	ENUM	0 = Clear; 1 = Alarm
40516	0203	515	Cool Function Unavailable	R	1	ENUM	0 = Clear; 1 = Alarm
40517	0204	516	Rack Inlet 1 High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40518	0205	517	Rack Inlet 2 High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
40519	0206	518	Rack Inlet 3 High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40520	0207	519	High Return Humidity Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40521	0208	520	Low Return Humidity Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40522	0209	521	Air Filter Clogged	R	1	ENUM	0 = Clear; 1 = Alarm
40523	020A	522	Return Air Temperature Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40524	020B	523	Upper Supply Air Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40525	020C	524	Rack Temperature Sensor 1 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40526	020D	525	Rack Temperature Sensor 2 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40527	020E	526	Rack Temperature Sensor 3 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40528	020F	527	Chilled Water Valve Actuator Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40529	0210	528	High Discharge Pressure Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40530	0211	529	Low Suction Pressure Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40531	0212	530	High Suction Pressure Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40532	0213	531	Humidifier Error Tolerance Exceed Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40533	0214	532	Fan 1 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40534	0215	533	Fan 2 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40535	0216	534	Fan 3 Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40536	0217	535	Water Detected Error	R	1	ENUM	0 = Clear; 1 = Alarm
40537	0218	536	Check Condensate Management System	R	1	ENUM	0 = Clear; 1 = Alarm
40538	0219	537	RESERVED	N/A	1	N/A	
40539	021A	538	Humidifier High Water Conductivity	R	1	ENUM	0 = Clear; 1 = Alarm
40540	021B	539	Humidifier Low Water Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40541	021C	540	Humidifier Excessive Output Reduction Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40542	021D	541	Humidifier Drain Error	R	1	ENUM	0 = Clear; 1 = Alarm
40543	021E	542	Humidifier Cylinder Full Unit Off Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40544	021F	543	Humidifier Replace Cylinder Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40545	0220	544	Compressor Drive Failure	R	1	ENUM	0 = Clear; 1 = Alarm
40546	0221	545	Compressor Drive Warning	R	1	ENUM	0 = Clear; 1 = Alarm
40547	0222	546	Entering Chilled Water High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40548	0223	547	Entering Chilled Water Temperature Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40549	0224	548	Leaving Chilled Water Temperature Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40550	0225	549	Primary Power Source Unavailable	R	1	ENUM	0 = Clear; 1 = Alarm
40551	0226	550	Humidifier Communication Error	R	1	ENUM	0 = Clear; 1 = Alarm
40552	0227	551	Compressor Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40553	0228	552	Heater 1 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40554	0229	553	Heater 2 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40555	022A	554	Heater 3 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40556	022B	555	Humidifier Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40557	022C	556	Fan 1 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40558	022D	557	Fan 2 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40559	022E	558	Fan 3 Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40560	022F	559	Air Filter Run Hours Violation	R	1	ENUM	0 = Clear; 1 = Alarm
40561	0230	560	Condensate Pump Runtime Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40562	0231	561	Group Communication Error	R	1	ENUM	0 = Clear; 1 = Alarm
40563	0232	562	Compressor Drive Communication Error	R	1	ENUM	0 = Clear; 1 = Alarm
40564	0233	563	Supply Air High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40565	0234	564	Return Air High Temperature Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40566	0235	565	Filter Differential Pressure Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40567	0236	566	RESERVED	N/A	1	N/A	
40568	0237	567	Suction Pressure Sensor Failure	R	1	ENUM	0 = Clear; 1 = Alarm
40569	0238	568	Discharge Pressure Sensor Failure	R	1	ENUM	0 = Clear; 1 = Alarm
40570	0239	569	RESERVED	N/A	1	N/A	
40571	023A	570	Standby Due to Input Contact	R	1	ENUM	0 = Clear; 1 = Alarm
40572	023B	571	Supply Humidity Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40573	023C	572	Return Humidity Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
40574	023D	573	Heater 1 Error	R	1	ENUM	0 = Clear; 1 = Alarm
40575	023E	574	Heater 2 Error	R	1	ENUM	0 = Clear; 1 = Alarm
40576	023F	575	Heater 3 Error	R	1	ENUM	0 = Clear; 1 = Alarm
40577	0240	576	Compressor High Head Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40578	0241	577	RESERVED	N/A	1	N/A	
40579	0242	578	RESERVED	N/A	1	N/A	
40580	0243	579	Lower Supply Air Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40581	0244	580	RESERVED	N/A	1	N/A	
40582	0245	581	Excessive Compressor Cycling Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40583	0246	582	Persistent Compressor High Head Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40584	0247	583	Chilled Water Flow Meter Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40585	0248	584	Idle Due To Leak Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40586	0249	585	Fluid Calibration Active	R	1	ENUM	0 = Clear; 1 = Alarm
40587	024A	586	No Backup Units Available	R	1	ENUM	0 = Clear; 1 = Alarm
40588	024B	587	EcoAisle Door Open	R	1	ENUM	0 = Clear; 1 = Alarm
40589	024C	588	Unexpected Number of Active Flow Controllers	R	1	ENUM	0 = Clear; 1 = Alarm
40590	024D	589	Insufficient Airflow Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40591	024E	590	Active Flow Controller Sensor Error Detected	R	1	ENUM	0 = Clear; 1 = Alarm
40592	024F	591	Condensate Pan Full	R	1	ENUM	0 = Clear; 1 = Alarm
40593	0250	592	Compressor Drive Locked	R	1	ENUM	0 = Clear; 1 = Alarm
40594	0251	593	VFD Inverter Over Heated Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40595	0252	594	Persistent Low Suction Pressure Condition	R	1	ENUM	0 = Clear; 1 = Alarm
40596	0253	595	Unit Capability Not Configured	R	1	ENUM	0 = Clear; 1 = Alarm
40597	0254	596	Compressor Suction Sensor Fault	R	1	ENUM	0 = Clear; 1 = Alarm
40598	0255	597	Low Superheat Warning	R	1	ENUM	0 = Clear; 1 = Alarm
40599	0256	598	Low superheat Critical	R	1	ENUM	0 = Clear; 1 = Alarm
Group Data (Metric)							
41001	03E8	1000	Overall Status	R	1	ENUM	0 = OK State; 1 = Info State; 2 = Warning State; 3 = Critical State
41002	03E9	1001	Group Cool Output	R	2	UINT32	(Tenths) kW
41004	03EB	1003	Group Cool Demand	R	2	UINT32	(Tenths) kW
41006	03ED	1005	Group Humidify Output	R	2	UINT32	%
41008	03EF	1007	Group Humidify Demand	R	2	UINT32	%
41010	03F1	1009	Group Dehumidify Output	R	2	UINT32	%
41012	03F3	1011	Group Dehumidify Demand	R	2	UINT32	%
41014	03F5	1013	Group Reheat Output	R	2	UINT32	%
41016	03F7	1015	Group Reheat Demand	R	2	UINT32	%
41018	03F9	1017	Group Airflow	R	2	UINT32	(Tenths) L/s
41020	03FB	1019	Group Maximum Rack Inlet Temperature	R	2	UINT32	(Tenths) C
41022	03FD	1021	Group Minimum Rack Inlet Temperature	R	2	UINT32	(Tenths) C
41024	03FF	1023	Cool Setpoint	R/W	2	UINT32	(Tenths) C
41026	0401	1025	Humidify Setpoint	R/W	2	UINT32	(Tenths) %RH
41028	0403	1027	Dehumidify Setpoint	R/W	2	UINT32	(Tenths) %RH
41030	0405	1029	Dehumidify Deadband	R/W	2	UINT32	%RH
41032	0407	1031	Reheat Setpoint	R/W	2	UINT32	(Tenths) C
41034	0409	1033	Supply Air Setpoint	R/W	2	UINT32	(Tenths) C
41036	040B	1035	Number of Units in Group	R/W	2	UINT32	Unitless
41038	040D	1037	Configuration Type	R	1	ENUM	0 = RACS; 1 = HACS; 2 = In-Row; 3 = CACS
41039	040E	1038	Percent Glycol	R	2	UINT32	%
41041	0410	1040	Cool Gain 'P'	R	2	UINT32	(Hundredths) Unitless
41043	0412	1042	Cool Reset Rate 'I'	R	2	UINT32	(Hundredths) Unitless
41045	0414	1044	Cool Derivative 'D'	R	2	UINT32	(Hundredths) Unitless
41047	0416	1046	Humidify Sensitivity Band	R/W	2	UINT32	%RH
41049	0418	1048	Reheat Gain (P)	R	2	UINT32	(Hundredths) Unitless
41051	041A	1050	Reheat Integral (I)	R	2	UINT32	(Hundredths) Unitless

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
41053	041C	1052	Reheat Derivative (D)	R	2	UINT32	(Hundredths) Unitless
41055	041E	1054	Fan Speed Preference	R/W	1	ENUM	0 = Low; 1 = Med-Low; 2 = Med; 3 = Med-High; 4 = High
41056	041F	1055	Air Flow Control	R/W	1	ENUM	0 = Automatic; 1 = Manual
41057	0420	1056	Number of Backup Units	R/W	2	UINT32	Unitless
41059	0422	1058	Number of Precision Units	R/W	2	UINT32	Unitless
41061	0424	1060	Load Assist Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
41062	0425	1061	Run-Time Balancing Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
41063	0426	1062	Maximum Fan Speed	R/W	2	UINT32	%
41065	0428	1064	Altitude	R/W	2	UINT32	m
41067	042A	1066	Number of Active Flow Controllers	R/W	2	UINT32	Unitless
41069	042C	1068	Active Flow Control Bias	R	1	ENUM	0 = Positive; 1 = Slightly Positive; 2 = Zero; 3 = Slightly Negative; 4 = Negative
41070	042D	1069	Active Flow Control Status	R	1	ENUM	0 = Under; 1 = Okay; 2 = Over; 3 = NA
41071	042E	1070	Active Flow Control Lamp Test	R/W	1	ENUM	0 = Off; 1 = On
41072	042F	1071	Dew Point Temperature	R	2	INT32	(Tenths) C
Unit Data (Metric)							
41129	0468	1128	Name	R/W	21	ASCII	N/A
41150	047D	1149	Location	R/W	21	ASCII	N/A
41171	0492	1170	Unit ID	R	2	UINT32	Unitless
41173	0494	1172	Model Number	R	10	ASCII	N/A
41183	049E	1182	Serial Number	R	10	ASCII	N/A
41193	04A8	1192	Firmware Revision	R	4	ASCII	N/A
41197	04AC	1196	Hardware Revision	R	4	ASCII	N/A
41201	04B0	1200	Manufacturing Date	R	6	ASCII	N/A
41207	04B6	1206	Operating Mode	R	1	ENUM	0 = Standby; 1 = On; 2 = Idle; 3 = Prestart; 4 = Backup; 5 = Load Assist
41208	04B7	1207	Cool Output	R	2	UINT32	(Tenths) kW
41210	04B9	1209	Cool Demand	R	2	UINT32	(Tenths) kW
41212	04BB	1211	Humidify Output	R	2	UINT32	%
41214	04BD	1213	Humidify Demand	R	2	UINT32	%
41216	04BF	1215	Dehumidify Output	R	2	UINT32	%
41218	04C1	1217	Dehumidify Demand	R	2	UINT32	%
41220	04C3	1219	Reheat Output	R	2	UINT32	%
41222	04C5	1221	Reheat Demand	R	2	UINT32	%
41224	04C7	1223	Unit Maximum Rack Inlet Temperature	R	2	UINT32	(Tenths) C
41226	04C9	1225	Supply Air Temperature	R	2	UINT32	(Tenths) C
41228	04CB	1227	Return Air Temperature	R	2	UINT32	(Tenths) C
41230	04CD	1229	Supply Humidity	R	2	UINT32	(Tenths) %RH
41232	04CF	1231	Return Humidity	R	2	UINT32	(Tenths) %RH
41234	04D1	1233	Airflow	R	2	UINT32	(Tenths) L/s
41236	04D3	1235	Fan Speed	R	2	UINT32	(Tenths) %
41238	04D5	1237	Active Power Source	R	1	ENUM	0 = Primary; 1 = Secondary
41239	04D6	1238	Rack Inlet Temperature 1	R	2	UINT32	(Tenths) C
41241	04D8	1240	Rack Inlet Temperature 2	R	2	UINT32	(Tenths) C
41243	04DA	1242	Rack Inlet Temperature 3	R	2	UINT32	(Tenths) C
41245	04DC	1244	Filter Differential Pressure	R	2	UINT32	(Tenths) Pa
41247	04DE	1246	RESERVED	N/A	2	N/A	
41249	04E0	1248	Humidifier Current	R	2	UINT32	(Tenths) A
41251	04E2	1250	Humidifier Water Conductivity	R	2	UINT32	uS/cm
41253	04E4	1252	CW Valve Position	R	2	UINT32	%
41255	04E6	1254	CW Fluid Flow	R	2	UINT32	(Tenths) L/s
41257	04E8	1256	Entering Fluid Temperature	R	2	UINT32	(Tenths) C
41259	04EA	1258	Leaving Fluid Temperature	R	2	UINT32	(Tenths) C
41261	04EC	1260	Suction Pressure	R	2	UINT32	(Tenths) KPa
41263	04EE	1262	Discharge Pressure	R	2	UINT32	(Tenths) KPa
41265	04F0	1264	VFD Speed	R	2	UINT32	(Tenths) Hz

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
41267	04F2	1266	VFD Power	R	2	UINT32	(Hundredths) kW
41269	04F4	1268	VFD Motor Voltage	R	2	UINT32	(Tenths) V
41271	04F6	1270	VFD Motor Current	R	2	UINT32	(Hundredths) A
41273	04F8	1272	VFD DC Link Voltage	R	2	UINT32	V
41275	04FA	1274	VFD Heat Sink Temperature	R	2	UINT32	(Tenths) C
41277	04FC	1276	VFD Control Card Temperature	R	2	UINT32	(Tenths) C
41279	04FE	1278	VFD Alarm Status	R	2	STREAM	N/A
41281	0500	1280	VFD Warning Status	R	2	STREAM	N/A
41283	0502	1282	Air Filter Run Hours	R	2	UINT32	hr
41285	0504	1284	Fan 1 Run Hours	R	2	UINT32	hr
41287	0506	1286	Fan 2 Run Hours	R	2	UINT32	hr
41289	0508	1288	Fan 3 Run Hours	R	2	UINT32	hr
41291	050A	1290	Compressor Run Hours	R	2	UINT32	hr
41293	050C	1292	Humidifier Run Hours	R	2	UINT32	hr
41295	050E	1294	Heater 1 Run Hours	R	2	UINT32	hr
41297	0510	1296	Heater 2 Run Hours	R	2	UINT32	hr
41299	0512	1298	Heater 3 Run Hours	R	2	UINT32	hr
41301	0514	1300	Condensate Pump Run Hours	R	2	UINT32	hr
41303	0516	1302	Air Filter Service Interval	R/W	2	UINT32	weeks
41305	0518	1304	Air Filter Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41306	0519	1305	Humidifier Service Alarm Interval	R/W	2	UINT32	weeks
41308	051B	1307	Humidifier Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41309	051C	1308	Heater Service Alarm Interval	R/W	2	UINT32	weeks
41311	051E	1310	Heater Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41312	051F	1311	Compressor Service Alarm Interval	R/W	2	UINT32	weeks
41314	0521	1313	Compressor Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41315	0522	1314	Fans Service Alarm Interval	R/W	2	UINT32	weeks
41317	0524	1316	Fans Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41318	0525	1317	Condensate Pump Service Alarm Interval	R/W	2	UINT32	weeks
41320	0527	1319	Condensate Pump Service Alarm Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41321	0528	1320	Rack Inlet Temperature High Threshold	R/W	2	UINT32	(Tenths) C
41323	052A	1322	Supply Air Temperature High Threshold	R/W	2	UINT32	(Tenths) C
41325	052C	1324	Return Air Temperature High Threshold	R/W	2	UINT32	(Tenths) C
41327	052E	1326	CW Entering Temp High Threshold	R/W	2	UINT32	(Tenths) C
41329	0530	1328	Return Humidity High Threshold	R/W	2	UINT32	(Tenths) %RH
41331	0532	1330	Return Humidity Low Threshold	R/W	2	UINT32	(Tenths) %RH
41333	0534	1332	Startup Delay	R/W	2	UINT32	sec
41335	0536	1334	Cool Capacity	R/W	1	ENUM	0 = Automatic; 1 = Maximum
41336	0537	1335	Idle on Leak Detect	R/W	1	ENUM	0 = Yes; 1 = No
41337	0538	1336	Standby Input Normal State	R/W	1	ENUM	0 = Open; 1 = Closed
41338	0539	1337	Standby Input State	R	1	ENUM	0 = Open; 1 = Closed
41339	053A	1338	Output Normal State	R/W	1	ENUM	0 = Open; 1 = Closed
41340	053B	1339	Output State	R	1	ENUM	0 = Open; 1 = Closed
41341	053C	1340	Output Source	R	1	ENUM	0 = Any Alarm; 1 = Only Critical Alarms
41342	053D	1341	Humidify Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41343	053E	1342	Humidifier Control	R/W	1	ENUM	1 = Auto; 2 = Drain
41344	053F	1343	Dehumidify Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
41345	0540	1344	Reheat Enable	R/W	1	ENUM	0 = Enable; 1 = Disable
41346	0541	1345	Heat Assist Enable	R/W	1	ENUM	0 = Disable; 1 = Enable
41347	0542	1346	Power Source	R/W	1	ENUM	0 = Single; 1 = Dual
41348	0543	1347	Unit Role Override	R/W	1	ENUM	0 = Automatic; 1 = Forced On
41349	0544	1348	System Run Hours	R	2	UINT32	hr
41351	0546	1350	Secondary Power Feed Capability	R/W	1	ENUM	0 = FullPower; 1 = ReducedPower
41352	0547	1351	Bypass Valve Position	R/W	1	ENUM	0 = Closed; 1 = Open
41353	0548	1352	Air Filter Type	R/W	1	ENUM	0 = Standard; 1 = High Efficiency

Modicon Standard Register Number	Absolute Starting Register Number (Hexadecimal)	Absolute Starting Register Number (Decimal)	Data Point	R/W	Length	Data Type	Valid Response
Modbus Counters							
465519	FFEE	65518	Modbus RX CRC Errors	R	2	UINT32	Unitless
465521	FFF0	65520	Modbus RX Count	R	2	UINT32	Unitless
465523	FFF2	65522	Modbus TX Count	R	2	UINT32	Unitless

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