InRow® DX ACRD301 and ACRH301 Series

This document details the BACnet objects and properties supported by the application firmware v6.0.0 and higher (v6.0.0+), which is available on the APC or Schneider Electric Web site.

What's in This Document

Additional Information

- Information on the BACnet protocol specification can found at www.bacnet.org.

- Schneider Electric recommends EcoStruxure Building Operation software (formerly known as StruxureWare Building Operation/SBO) for integrated monitoring, control and management of BACnet-enabled devices.

- See the Network Management Card 2 User Guide available on the APC website for more information on configuring the NMC 2 for BACnet.

- The application firmware v6.6.4+ for InRow DX ACRD301 and ACRH301 series cooling units supports BACnet/IP only.

As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

Schneider Electric

Analog Value Objects

Index	ID	Name	Description	Units	COV Increment (default)	Access
0	8388608	NumberofLeakDetectorsinUnit	Number of Leak Detectors in Unit	no-units (95)	0	RO
1	8388609	NumberofRackInletSensors	Number of Rack Inlet Sensors	no-units (95)	0	RO
2	8388610	NumberofEvapFanPowerSupplies	Number of Evap Fan Power Supplies	no-units (95)	0	RO
3	8388611	NumberofActiveFlowControllers	Number of Active Flow Controllers	no-units (95)	0	RO
4	8388612	AltitudeOfUnit	Altitude Of Unit	meters (31)	0	RO
5	8388613	CondensatePumpHoldTime	Condensate Pump Hold Time	seconds (73)	0	RO
125	8388733	RuntimeBalancingDifference	Runtime Balancing Difference	hours (71)	0	RW
126	8388734	SwitchoverHandoffTime	Switchover Handoff Time	minutes (72)	0	RW
127	8388735	HeaterMaxOutput	Heater Max Output	percent (98)	0	RO
128	8388736	CondenserValveStartPosition	Condenser Valve Start Position	percent (98)	0	RO
129	8388737	CoolantLiquidFreezingPoint	Coolant Liquid Freezing Point	degrees-Celsius (62)	0	RO
130	8388738	CondenserValveMinPosition	Condenser Valve Min Position	percent (98)	0	RO
6	8388614	StartupDelay	Startup Delay	seconds (73)	0	RO
7	8388615	CompressorOperatingEnvelopeStartActionOffset	Compressor Operating Envelope Start Action Offset	delta-degrees-Kelvin (121)	0	RO
131	8388739	SuperheatRecoveryTimeout	Superheat Recovery Timeout	minutes (72)	0	RO
132	8388740	EEVSyncHours	EEV Sync Hours	hours (71)	0	RO
133	8388741	EnvelopeMaxCondensingTemperatureset	Envelope Max Condensing Temperature set	degrees-Celsius (62)	0	RO
134	8388742	SuperHeatSetpoint	SuperHeat Setpoint	delta-degrees-Kelvin (121)	0	RO
135	8388743	CondenserTemperatureSetpoint	Condenser Temperature Setpoint	degrees-Celsius (62)	0	RO
8	8388616	SupplyAirSetpoint	Supply Air Setpoint	degrees-Celsius (62)	0	RO
9	8388617	RackInletSetpoint	Rack Inlet Setpoint	degrees-Celsius (62)	0	RO
10	8388618	ManualITFanSpeed	Manual IT Fan Speed	percent (98)	0	RO
136	8388744	DryCoolerMinimumFanSpeed	Dry Cooler Minimum Fan Speed	percent (98)	0	RO
137	8388745	EnergySaverCoolingCoilEnableThreshold	Energy Saver Cooling Coil Enable Threshold	delta-degrees-Kelvin (121)	0	RO
138	8388746	EnergySaverStopDXIntegrationFS	Energy Saver Stop DX Integration FS	no-units (95)	0	RO
139	8388747	DXOnlyRunDXIntegrationFS	DX Only Run DX Integration FS	no-units (95)	0	RO
140	8388748	DXOnlyRunDXDeadband	DX Only Run DX Deadband	delta-degrees-Kelvin (121)	0	RO
141	8388749	DXOnlyDCFanMinSpeed	DX Only DC Fan Min Speed	percent (98)	0	RO

Index	ID	Name	Description	Units	COV Increment (default)	Access
142	8388750	InletWaterLowIntegrationFS	Inlet Water Low Integration FS	no-units (95)	0	RO
143	8388751	InletWaterHighEnableESIntegrationFS	Inlet Water High Enable ES Integration FS	no-units (95)	0	RO
144	8388752	InletWaterLowProtectUnitdeadband	Inlet Water Low Protect Unit deadband	delta-degrees-Kelvin (121)	0	RO
145	8388753	ESDehumDewpointdeadband	ES Dehum Dewpoint deadband	delta-degrees-Kelvin (121)	0	RO
146	8388754	ESDehumInletWaterLowEntryDXFS	ES Dehum Inlet Water Low Entry DX FS	no-units (95)	0	RO
147	8388755	LFSWActiveLimitMaxFanSpeed	LF SW Active Limit Max Fan Speed	percent (98)	0	RO
148	8388756	LFSWActiveLimitFanSpeedHoldTime	LF SW Active Limit Fan Speed Hold Time	minutes (72)	0	RO
178	8388786	TwinCoolSupplyTemperatureDeadband	Twin Cool Supply Temperature Deadband	delta-degrees-Kelvin (121)	0	RO
179	8388787	TwinCoolSupplyTemperatureIntegrationProduct	Twin Cool Supply Temperature Integration Product	no-units (95)	0	RO
11	8388619	SupplyAirTemperature_1	Supply Air Temperature (Average)	degrees-Celsius (62)	0	RO
12	8388620	SupplyAirTemperature_2	Supply Air Temperature (Top)	degrees-Celsius (62)	0	RO
13	8388621	SupplyAirTemperature_3	Supply Air Temperature (Bottom)	degrees-Celsius (62)	0	RO
14	8388622	ReturnAirTemperature_1	Return Air Temperature (Average)	degrees-Celsius (62)	0	RO
15	8388623	ReturnAirTemperature_2	Return Air Temperature (Top)	degrees-Celsius (62)	0	RO
16	8388624	ReturnAirTemperature_3	Return Air Temperature (Bottom)	degrees-Celsius (62)	0	RO
17	8388625	RackInletTemperature_1	Rack Inlet Temperature (Average)	degrees-Celsius (62)	0	RO
18	8388626	RackInletTemperature_2	Rack Inlet Temperature (Maximum)	degrees-Celsius (62)	0	RO
19	8388627	RackInletTemperature_3	Rack Inlet Temperature (Minimum)	degrees-Celsius (62)	0	RO
149	8388757	RackInletTemperatureN_1	Rack Inlet Temperature N 1	degrees-Celsius (62)	0	RO
150	8388758	RackInletTemperatureN_2	Rack Inlet Temperature N 2	degrees-Celsius (62)	0	RO
151	8388759	RackInletTemperatureN_3	Rack Inlet Temperature N 3	degrees-Celsius (62)	0	RO
152	8388760	RackInletTemperatureN_4	Rack Inlet Temperature N 4	degrees-Celsius (62)	0	RO
20	8388628	RoomTemperature	Room Temperature	degrees-Celsius (62)	0	RO
21	8388629	RoomHumidity	Room Humidity	percent-relative-humidity (29)	0	RO
22	8388630	DischargeLinePressure	Discharge Line Pressure	bars (55)	0	RO
23	8388631	SuctionLinePressure	Suction Line Pressure	bars (55)	0	RO
24	8388632	AirFilterPressure	Air Filter Pressure	pascals (53)	0	RO
25	8388633	EvapCoilTemperature_1	Evap Coil Temperature (In)	degrees-Celsius (62)	0	RO
26	8388634	EvapCoilTemperature_2	Evap Coil Temperature (Out)	degrees-Celsius (62)	0	RO

Index	ID	Name	Description	Units	COV Increment (default)	Access
27	8388635	SuctionEvaporatingTemperature	Suction Evaporating Temperature	degrees-Celsius (62)	0	RO
28	8388636	DischargeCondensingTemperature	Discharge Condensing Temperature	degrees-Celsius (62)	0	RO
29	8388637	SuperheatTemperature	Superheat Temperature	delta-degrees-Kelvin (121)	0	RO
30	8388638	Airflow	Airflow	liters-per-second (87)	0	RO
153	8388761	AirsideCoolingDemand	Airside Cooling Demand	kilowatts (48)	0	RO
154	8388762	SensibleCoolingPower	Sensible Cooling Power	kilowatts (48)	0	RO
155	8388763	InletWaterTemperature	Coldwater Inlet Temperature	degrees-Celsius (62)	0	RO
156	8388764	ModulatingValvePosition	Modulating Valve Position	percent (98)	0	RO
157	8388765	CondenserValvePosition	Condenser Valve Position	percent (98)	0	RO
158	8388766	DryCoolerFanSpeed	Dry Cooler Fan Speed	percent (98)	0	RO
174	8388782	EvaporatorCoilOutletSaturationTemperature	Evaporator Coil Outlet Saturation Temperature	degrees-Celsius (62)	0	RO
175	8388783	EvaporatorCoilOutletLinePressure	Evaporator Coil Outlet Line Pressure	bars (55)	0	RO
31	8388639	SupplyAirTemperatureHighThreshold	Supply Air Temperature High Threshold	degrees-Celsius (62)	0	RW
32	8388640	ReturnAirTemperatureHighThreshold	Return Air Temperature High Threshold	degrees-Celsius (62)	0	RW
33	8388641	RackInletTemperatureHighThreshold	Rack Inlet Temperature High Threshold	degrees-Celsius (62)	0	RW
34	8388642	ReturnHumidityLowThreshold	Return Humidity Low Threshold	percent-relative-humidity (29)	0	RW
35	8388643	ReturnHumidityHighThreshold	Return Humidity High Threshold	percent-relative-humidity (29)	0	RW
36	8388644	CloggedAirFilterThreshold	Clogged Air Filter Threshold	pascals (53)	0	RW
176	8388784	TwinCoolChilledWaterThreshold	Twin Cool Chilled Water Threshold	degrees-Celsius (62)	0	RW
37	8388645	EvaporatorFanCommandedSpeed	Evaporator Fan Commanded Speed	percent (98)	0	RO
38	8388646	EvaporatorFanMaxSpeedLimit	Evaporator Fan Max Speed Limit	percent (98)	0	RO
166	8388774	EvaporatorFanTach_1	Evaporator Fan Tach 1	revolutions-per-minute (104)	0	RO
167	8388775	EvaporatorFanTach_2	Evaporator Fan Tach 2	revolutions-per-minute (104)	0	RO
168	8388776	EvaporatorFanTach_3	Evaporator Fan Tach 3	revolutions-per-minute (104)	0	RO
169	8388777	EvaporatorFanTach_4	Evaporator Fan Tach 4	revolutions-per-minute (104)	0	RO
170	8388778	EvaporatorFanTach_5	Evaporator Fan Tach 5	revolutions-per-minute (104)	0	RO
171	8388779	EvaporatorFanTach_6	Evaporator Fan Tach 6	revolutions-per-minute (104)	0	RO
172	8388780	EvaporatorFanTach_7	Evaporator Fan Tach 7	revolutions-per-minute (104)	0	RO
173	8388781	EvaporatorFanTach_8	Evaporator Fan Tach 8	revolutions-per-minute (104)	0	RO
39	8388647	EvaporatorFanPowerSupplyCurrent_1	Evaporator Fan Power Supply Current (A)	amperes (3)	0	RO

Index	ID	Name	Description	Units	COV Increment (default)	Access
40	8388648	EvaporatorFanPowerSupply-Current_2	Evaporator Fan Power Supply Current (B)	amperes (3)	0	RO
41	8388649	EvaporatorFanMaxSpeed	Evaporator Fan Max Speed	percent (98)	0	RO
42	8388650	EvaporatorFanMinSpeed	Evaporator Fan Min Speed	percent (98)	0	RO
43	8388651	EvaporatorFanMinSpeedLimit	Evaporator Fan Min Speed Limit	percent (98)	0	RO
44	8388652	CondenserFanCommanded-Speed	Condenser Fan Commanded Speed	percent (98)	0	RO
45	8388653	CondenserFanSpeed	Condenser Fan Speed	percent (98)	0	RO
46	8388654	CondenserFanPower	Condenser Fan Power	watts (47)	0	RO
47	8388655	RoomDewPoint	Room Dew Point	degrees-Celsius (62)	0	RO
159	8388767	MaximumCompressorRes-tarts	Maximum Compressor Restarts	no-units (95)	0	RO
160	8388768	MinimumCompressorSpeed	Minimum Compressor Speed	hertz (27)	0	RO
161	8388769	MaximumCompressorSpeed	Maximum Compressor Speed	hertz (27)	0	RO
48	8388656	CompressorSpeed	Compressor Speed	hertz (27)	0	RO
49	8388657	CompressorPower	Compressor Power	kilowatts (48)	0	RO
50	8388658	OilLowSpeedRunningTime	Oil Low Speed Running Time	minutes (72)	0	RO
51	8388659	OilBoostDuration	Oil Boost Duration	seconds (73)	0	RO
52	8388660	OilMinimumSpeedLimit	Oil Minimum Speed Limit	hertz (27)	0	RO
53	8388661	OilBoostSpeed	Oil Boost Speed	hertz (27)	0	RO
162	8388770	StartupCompressorSpeed	Startup Compressor Speed	hertz (27)	0	RO
177	8388785	BPHEValveCommandedPosi-tion	BPHE Valve Commanded Position	percent (98)	0	RO
180	8388788	CompressorRestartTime	Compressor Restart Time	seconds (73)	0	RO
54	8388662	EEVPosition	EEV Position	percent (98)	0	RO
55	8388663	EEVPreOpenPosition	EEV Pre Open Position	percent (98)	0	RO
163	8388771	EEVMinimalPosition	EEV Minimal Position	no-units (95)	0	RO
164	8388772	EEVQuickAdjustMinPosition	EEV Quick Adjust Min Position	no-units (95)	0	RO
56	8388664	DeviceRunHours_1	Device Run Hours (Unit)	hours (71)	0	RO
57	8388665	DeviceRunHours_2	Device Run Hours (AirFilter)	hours (71)	0	RO
58	8388666	DeviceRunHours_3	Device Run Hours (Compressor)	hours (71)	0	RO
59	8388667	DeviceRunHours_4	Device Run Hours (Fan1)	hours (71)	0	RO
60	8388668	DeviceRunHours_5	Device Run Hours (Fan2)	hours (71)	0	RO
61	8388669	DeviceRunHours_6	Device Run Hours (Fan3)	hours (71)	0	RO
62	8388670	DeviceRunHours_7	Device Run Hours (Fan4)	hours (71)	0	RO
63	8388671	DeviceRunHours_8	Device Run Hours (Fan5)	hours (71)	0	RO
64	8388672	DeviceRunHours_9	Device Run Hours (Fan6)	hours (71)	0	RO
65	8388673	DeviceRunHours_10	Device Run Hours (Fan7)	hours (71)	0	RO
66	8388674	DeviceRunHours_11	Device Run Hours (Fan8)	hours (71)	0	RO

Index	ID	Name	Description	Units	COV Increment (default)	Access
67	8388675	DeviceRunHours_12	Device Run Hours (CondenserFan)	hours (71)	0	RO
68	8388676	DeviceRunHours_13	Device Run Hours (CondensatePump)	hours (71)	0	RO
69	8388677	DeviceRunHours_14	Device Run Hours (Humidifier)	hours (71)	0	RO
70	8388678	DeviceRunHours_15	Device Run Hours (Heater1)	hours (71)	0	RO
71	8388679	DeviceRunHours_16	Device Run Hours (Heater2)	hours (71)	0	RO
72	8388680	DeviceRunHoursAlarmInterval_1	Device Run Hours Alarm Interval (Unit)	weeks (69)	0	RO
73	8388681	DeviceRunHoursAlarmInterval_2	Device Run Hours Alarm Interval (AirFilter)	weeks (69)	0	RO
74	8388682	DeviceRunHoursAlarmInterval_3	Device Run Hours Alarm Interval (Compressor)	weeks (69)	0	RO
75	8388683	DeviceRunHoursAlarmInterval_4	Device Run Hours Alarm Interval (Fan1)	weeks (69)	0	RO
76	8388684	DeviceRunHoursAlarmInterval_5	Device Run Hours Alarm Interval (Fan2)	weeks (69)	0	RO
77	8388685	DeviceRunHoursAlarmInterval_6	Device Run Hours Alarm Interval (Fan3)	weeks (69)	0	RO
78	8388686	DeviceRunHoursAlarmInterval_7	Device Run Hours Alarm Interval (Fan4)	weeks (69)	0	RO
79	8388687	DeviceRunHoursAlarmInterval_8	Device Run Hours Alarm Interval (Fan5)	weeks (69)	0	RO
80	8388688	DeviceRunHoursAlarmInterval_9	Device Run Hours Alarm Interval (Fan6)	weeks (69)	0	RO
81	8388689	DeviceRunHoursAlarmInterval_10	Device Run Hours Alarm Interval (Fan7)	weeks (69)	0	RO
82	8388690	DeviceRunHoursAlarmInterval_11	Device Run Hours Alarm Interval (Fan8)	weeks (69)	0	RO
83	8388691	DeviceRunHoursAlarmInterval_12	Device Run Hours Alarm Interval (CondenserFan)	weeks (69)	0	RO
84	8388692	DeviceRunHoursAlarmInterval_13	Device Run Hours Alarm Interval (CondensatePump)	weeks (69)	0	RO
85	8388693	DeviceRunHoursAlarmInterval_14	Device Run Hours Alarm Interval (Humidifier)	weeks (69)	0	RO
86	8388694	DeviceRunHoursAlarmInterval_15	Device Run Hours Alarm Interval (Heater1)	weeks (69)	0	RO
87	8388695	DeviceRunHoursAlarmInterval_16	Device Run Hours Alarm Interval (Heater2)	weeks (69)	0	RO
88	8388696	NumberofUnitsinGroup	Number of Units in Group	no-units (95)	0	RO
89	8388697	GroupMaxmiumRackTemperature	Group Maxmium Rack Temperature	degrees-Celsius (62)	0	RO
90	8388698	GroupMinimiumRackTemperature	Group Minimium Rack Temperature	degrees-Celsius (62)	0	RO
91	8388699	GroupDewPointTemperature	Group Dew Point Temperature	degrees-Celsius (62)	0	RO
92	8388700	TotalAirflow	Total Airflow	liters-per-second (87)	0	RO
93	8388701	TotalAirSideCoolingDemand	Total Air Side Cooling Demand	kilowatts (48)	0	RO
94	8388702	NumberofBackupUnits	Number of Backup Units	no-units (95)	0	RO

Index	ID	Name	Description	Units	COV Increment (default)	Access
95	8388703	DeviceRunHoursAlarmInterval_11	Device Run Hours Alarm Interval (Fan8)	weeks (69)	0	RO
96	8388704	DeviceRunHoursAlarmInterval_12	Device Run Hours Alarm Interval (CondenserFan)	weeks (69)	0	RO
97	8388705	DeviceRunHoursAlarmInterval_13	Device Run Hours Alarm Interval (CondensatePump)	weeks (69)	0	RO
98	8388706	DeviceRunHoursAlarmInterval_14	Device Run Hours Alarm Interval (Humidifier)	weeks (69)	0	RO
99	8388707	DeviceRunHoursAlarmInterval_15	Device Run Hours Alarm Interval (Heater1)	weeks (69)	0	RO
100	8388708	DeviceRunHoursAlarmInterval_16	Device Run Hours Alarm Interval (Heater2)	weeks (69)	0	RO
101	8388709	DeviceRunHoursAlarmInterval_17	Device Run Hours Alarm Interval (DryCoolerFan)	weeks (69)	0	RO
114	8388722	NumberofUnitsinGroup	Number of Units in Group	no-units (95)	0	RO
115	8388723	GroupMaxmiumRackTemperature	Group Maxmium Rack Temperature	degrees-Celsius (62)	0	RO
116	8388724	GroupMinimiumRackTemperature	Group Minimium Rack Temperature	degrees-Celsius (62)	0	RO
117	8388725	GroupDewPointTemperature	Group Dew Point Temperature	degrees-Celsius (62)	0	RO
118	8388726	TotalAirflow	Total Airflow	liters-per-second (87)	0	RO
119	8388727	TotalAirSideCoolingDemand	Total Air Side Cooling Demand	kilowatts (48)	0	RO
165	8388773	TotalSensibleCoolingPower	Total Sensible Cooling Power	kilowatts (48)	0	RO
120	8388728	NumberofBackupUnits	Number of Backup Units	no-units (95)	0	RO
121	8388729	HumidificationSetpoint	Humidification Setpoint	percent (98)	0	RW
122	8388730	DehumidificationSetpoint	Dehumidification Setpoint	percent (98)	0	RW
123	8388731	HumidityControlHysteresis	Humidity Control Hysteresis	percent (98)	0	RW
124	8388732	ReheatSetpoint	Reheat Setpoint	degrees-Celsius (62)	0	RW

Binary Value Objects (alarms; 0=Inactive, 1=Active)

Index	ID	Name	Description	Access
0	20971520	EV4902	Communication Error	RO
1	20971521	EV4904	Unexpected Number Of Units In Group	RO
2	20971522	EV4906	Primary Power Source	RO
3	20971523	EV4908	Secondary Power Source	RO
4	20971524	EV490A_1	Output Relay Active 1	RO
5	20971525	EV490A_2	Output Relay Active 2	RO
6	20971526	EV490A_3	Output Relay Active 3	RO
7	20971527	EV490A_4	Output Relay Active 4	RO
8	20971528	EV490C	AFC FW Revision Incompatibility	RO
9	20971529	EV490E_1	PIC FW Revision Incompatibility 1	RO
10	20971530	EV490E_2	PIC FW Revision Incompatibility 2	RO
11	20971531	EV4910	VFD Communication Fail	RO
12	20971532	EV4912	VFD Initialized Error	RO
13	20971533	EV4914	VFD High Head Pressure	RO
14	20971534	EV4916	VFD Persistent Trip	RO
15	20971535	EV4918	VFD Power Card Temperature	RO
16	20971536	EV491A	VFD Earth Fault	RO
17	20971537	EV491C	VFD Control Card Over Temperature	RO
18	20971538	EV491E	VFD Peak Over Current	RO
19	20971539	EV4920	VFD Torque Limit Exceeded	RO
20	20971540	EV4922	VFD Motor Thermistor Over Temperature	RO
21	20971541	EV4924	VFD Motor Over Temperature	RO
22	20971542	EV4926	VFD Current Overload	RO
23	20971543	EV4928	VFD DC Overvoltage	RO
24	20971544	EV492A	VFD Short Circuit	RO
25	20971545	EV492C	VFD Inrush Error	RO
26	20971546	EV492E	VFD Mains Phase Loss	RO
27	20971547	EV4930	VFD Internal Error	RO
28	20971548	EV4932	VFD Motor Phase u Missing	RO
29	20971549	EV4934	VFD Motor Phase v Missing	RO
30	20971550	EV4936	VFD Motor Phase w Missing	RO
31	20971551	EV4938	VFD Vd D1 Supply Low	RO
32	20971552	EV493A	VFD Drive Initialized To Defaults	RO
33	20971553	EV493C	VFD Control Card Over Temperature Warning	RO
34	20971554	EV493E	VFD Current Overload Warning	RO
35	20971555	EV4940	VFD DC Undervoltage Warning	RO
36	20971556	EV4942	VFD DC Overvoltage Warning	RO
37	20971557	EV4944	VFD DC Link Voltage Low	RO
38	20971558	EV4946	VFD DC Link Voltage High	RO
39	20971559	EV4948	VFD Speed Not Within Limits	RO
40	20971560	EV494A	VFD Control Voltage Overloaded	RO

Index	ID	Name	Description	Access
41	20971561	EV494C	VFD Current Limit Exceeded	RO
42	20971562	EV494E	Condenser Communication Failure	RO
43	20971563	EV4950	Condenser Fan Mains Over Voltage	RO
44	20971564	EV4952	Condenser Fan Mains Under Voltage	RO
45	20971565	EV4954	Condenser Fan DC Link Under Voltage	RO
46	20971566	EV4956	Condenser Fan DC Link Over Voltage	RO
47	20971567	EV4958	Condenser Fan Electronic Over Heated	RO
48	20971568	EV495A	Condenser Fan Locked Motor	RO
49	20971569	EV495C	Condenser Fan Hall Sensor Error	RO
50	20971570	EV495E	Condenser Fan Motor Over Heated	RO
51	20971571	EV4960	Condenser Fan BAD	RO
52	20971572	EV4962	Condenser Fan Communication Error	RO
53	20971573	EV4964	Condenser Fan Power Module Over Heated	RO
54	20971574	EV4966	Condenser Fan Phase Failure	RO
55	20971575	EV4968	Condenser Fan Cable Break	RO
56	20971576	EV496A	Condenser Fan Low Speed	RO
57	20971577	EV496C	Condenser Fan Brake Op	RO
58	20971578	EV496E	Condenser Fan DC Link Voltage Low	RO
59	20971579	EV4970	Condenser Fan Electronics Temperature High	RO
60	20971580	EV4972	Condenser Fan Motor Temperature High	RO
61	20971581	EV4974	Condenser Fan Output Stage Temperature High	RO
62	20971582	EV4976	Condenser Fan Power Limitation	RO
63	20971583	EV4978	Condenser Fan Line Impedance Too High	RO
64	20971584	EV497A	Condenser Fan Current Limitation	RO
65	20971585	EV497C	Upper Return Temperature Sensor Failed	RO
66	20971586	EV497E	Lower Return Temperature Sensor Failed	RO
67	20971587	EV4980	Upper Supply Temperature Sensor Failed	RO
68	20971588	EV4982	Lower Supply Temperature Sensor Failed	RO
69	20971589	EV4984	Outlet Evap Coil Temperature Sensor Failed	RO
70	20971590	EV4986	Inlet Evap Coil Temperature Sensor Failed	RO
71	20971591	EV4988	Room Humidity Sensor Failed	RO
72	20971592	EV498A	Suction Pressures Sensor Failed	RO
73	20971593	EV498C	Discharge Pressure Sensor Failed	RO
74	20971594	EV498E	Air Filter Pressure Sensor Failed	RO
75	20971595	EV4990	Wrong number of Rack Inlet Sensors	RO
76	20971596	EV4992	Rack Inlet Temperature Sensor Failed	RO
77	20971597	EV4994	Wrong number of Leak Detector Sensors	RO
78	20971598	EV4996	Leak Detected	RO
79	20971599	EV4998	Condensate Pan Full	RO
80	20971600	EV499A	Condensate Pan Overflowing	RO
81	20971601	EV499C_1	Fan Fault 1	RO
82	20971602	EV499C_2	Fan Fault 2	RO
83	20971603	EV499C_3	Fan Fault 3	RO
84	20971604	EV499C_4	Fan Fault 4	RO

Index	ID	Name	Description	Access
85	20971605	EV499C_5	Fan Fault 5	RO
86	20971606	EV499C_6	Fan Fault 6	RO
87	20971607	EV499C_7	Fan Fault 7	RO
88	20971608	EV499C_8	Fan Fault 8	RO
89	20971609	EV499E	Input Voltage has not been configured	RO
90	20971610	EV49A0	Suction Pressure Too Low To Start	RO
91	20971611	EV49A2	Coil Freezing	RO
92	20971612	EV49A4	Suction Pressure Very Low	RO
93	20971613	EV49A6	Discharge Pressure Too High	RO
94	20971614	EV49A8	Superheat Too Low	RO
95	20971615	EV49AA	Superheat Too High	RO
96	20971616	EV49AC	Low Suction Pressure Persistent	RO
97	20971617	EV49AE	High Discharge Pressure Persistent	RO
98	20971618	EV49B0	Superheat High or Low Persistent	RO
99	20971619	EV49B2	Unit in Idle	RO
100	20971620	EV49B4	Supply Temperature is above threshold	RO
101	20971621	EV49B6	Return Temperature is above threshold	RO
102	20971622	EV49B8	Rack Inlet Temperature is above threshold	RO
103	20971623	EV49BA	Humidity is below threshold	RO
104	20971624	EV49BC	Humidity is above threshold	RO
105	20971625	EV49BE	Unit Runtime	RO
106	20971626	EV49C0	Air Filter Runtime	RO
107	20971627	EV49C2	ECO Alisle Door Open	RO
108	20971628	EV49C4	Unexpected Number Of AFCs	RO
109	20971629	EV49C6	Insufficient Air Flow	RO
110	20971630	EV49C8	AFC Fault	RO
111	20971631	EV49CA	Too Many Compressor Short Cycles	RO
112	20971632	EV49CC	Off Due To Input Contact	RO
113	20971633	EV49CE	Smoke Detected	RO
114	20971634	EV49D0	Air Filter Clogged	RO
115	20971635	EV49D2	No Standby Units	RO
116	20971636	EV49D4	EXV Error	RO
117	20971637	EV49D6	Condensate Pan Lower Float Failure	RO
118	20971638	EV49D8	Condensate Pan Pump Control Failure	RO
119	20971639	EV49DA_1	Evaporator Fan Power Supply N Failure 1	RO
120	20971640	EV49DA_2	Evaporator Fan Power Supply N Failure 2	RO
121	20971641	EV49DC	Evaporator Fan Power Supply Failure	RO
122	20971642	EV49DE	Humidifier Communication Failure	RO
123	20971643	EV49E0	Humidifier MN Cylinder life expired	RO
124	20971644	EV49E2	Humidifier EC High conductivity	RO
125	20971645	EV49E4	Humidifier E1 Parameters not downloaded	RO
126	20971646	EV49E6	Humidifier E0 Parameters not OK	RO
127	20971647	EV49E8	Humidifier EH High current	RO
128	20971648	EV49EA	Humidifier EP Low production	RO

Index	ID	Name	Description	Access
129	20971649	EV49EC	Humidifier EU Full cylinder	RO
130	20971650	EV49EE	Humidifier EF No supply water	RO
131	20971651	EV49F0	Humidifier ED Unable to drain	RO
132	20971652	EV49F2	Humidifier CY Cylinder life nearly expired	RO
133	20971653	EV49F4	Humidifier EA Foam detected	RO
134	20971654	EV49F6	Humidifier CP Excessive scaling	RO
135	20971655	EV49F8	Humidifier CL Cylinder exhausted	RO
136	20971656	EV49FA	Humidifier E2 Backup memory failed	RO
137	20971657	EV49FC	CW Inlet Temperature Sensor Failed	RO
138	20971658	EV5302	Factory Configuration Not Completed	RO
139	20971659	EV5304	Key Parameter changed Controller need restart	RO
140	20971660	EV5306	Outlet Evap Coil Pressure Sensor Failed	RO
141	20971661	EV5308	Entering Chilled Water Temperature High Violation	RO
142	20971662	EV530A	Compressor Off via VFD Control Panel	RO
143	20971663	EV530C	Condenser Fan Configure Error	RO
144	20971664	EV530E	VFD Control Word Timeout	RO
145	20971665	EV5310	VFD DC Undervoltage	RO
146	20971666	EV5312	VFD AMA Error	RO
147	20971667	EV5314	VFD Live Zero Error	RO
148	20971668	EV5316	VFD Start Failed	RO
149	20971669	EV5318	VFD Brake Check Warning	RO
150	20971670	EV531A	VFD Power Card Temp Warning	RO
151	20971671	EV531C	VFD Earth Fault Warning	RO
152	20971672	EV531E	VFD Control Word Timeout Warning	RO
153	20971673	EV5320	VFD Motor Thermistor Overtemp Warning	RO
154	20971674	EV5322	VFD Motor Overload Warning	RO
155	20971675	EV5324	VFD Inverter Overload Warning	RO
156	20971676	EV5326	VFD Mains Phase Loss Warning	RO
157	20971677	EV5328	VFD Live Zero Error Warning	RO
158	20971678	EV532A	VFD Mains Failure Warning	RO
159	20971679	EV532C	VFD Low Temp Warning	RO
160	20971680	EV532E	VFD Start Delayed Warning	RO
161	20971681	EV5330	VFD Stop Delayed Warning	RO
162	20971682	EV5332	VFD Auto DC Braking Warning	RO
163	20971683	EV5334	VFD Fans Warning	RO
164	20971684	EV5336	VFD Overload Terminal 27 Warning	RO
165	20971685	EV5338	VFD Overload Terminal 29 Warning	RO
166	20971686	EV533A	VFD Memory Module Warning	RO
167	20971687	EV533C	VFD Feedback Fault Warning	RO
168	20971688	EV533E	VFD Back EMF High Warning	RO
169	20971689	EV5340	Condenser Fan Line Voltage High	RO
170	20971690	EV5342	Condenser Fan DC Link Voltage High	RO

Index	ID	Name	Description	Access
171	20971691	EV5344	Condenser Fan Output Stage Temp High	RO
172	20971692	EV5346	Condenser Fan Line Impedance Too High	RO

Binary Value Objects (data)

None

Character String Value Objects

Index	ID	Name	Description	Max. Chars	Access
0	167772160	ModelNumber	Model Number	29	RO
1	167772161	SerialNumber	Serial Number	19	RO
2	167772162	AppFirmwareRevision_1	App Firmware Revision (Executing)	7	RO
3	167772163	AppFirmwareRevision_2	App Firmware Revision (Newest)	7	RO
4	167772164	AppFirmwareRevision_3	App Firmware Revision (Oldest)	7	RO
5	167772165	HardwareRevision	Hardware Revision	7	RO
6	167772166	ManufactureDate	Manufacture Date	11	RO
7	167772167	PIC1FirmwareVersion_1	PIC1 Firmware Version (Executing)	19	RO
8	167772168	PIC1FirmwareVersion_2	PIC1 Firmware Version (Newest)	19	RO
9	167772169	PIC1FirmwareVersion_3	PIC1 Firmware Version (Bootloader)	19	RO
10	167772170	PIC2FirmwareVersion_1	PIC2 Firmware Version (Executing)	19	RO
11	167772171	PIC2FirmwareVersion_2	PIC2 Firmware Version (Newest)	19	RO
12	167772172	PIC2FirmwareVersion_3	PIC2 Firmware Version (Bootloader)	19	RO
13	167772173	R2BootloaderFirmwareRevision	R2 Bootloader Firmware Revision	32	RO

Multi-State Value Objects

Index	ID	Name	Description	Options	Access
62	79691838	UnitRoleOverride	Unit Role Override	1=Automatic, 2=Forced On	RW
0	79691776	SupplyVoltage	Supply Voltage	1=Not Configured, 2=100-120v, 3=200-240v	RO
1	79691777	CondensateDrainMethod	Condensate Drain Method	1=Pump, 2=Gravity	RO
2	79691778	PowerFeedType	Power Feed Type	1=Single, 2=Dual	RO
3	79691779	AirFilterType	Air Filter Type	1=Standard, 2=High Efficiency	RO
4	79691780	SmokeAlarmPresent	Smoke Alarm Present	1=No, 2=Yes	RO
5	79691781	HumiditySensorPresent	Humidity Sensor Present	1=No, 2=Yes	RO
6	79691782	ShutdownInputPresent	Shutdown Input Present	1=No, 2=Yes	RO
7	79691783	ShutdownInputNormalState	Shutdown Input Normal State	1=Open, 2=Closed	RO
8	79691784	RunTimeBalancingEnable	Run Time Balancing Enable	1=Disable, 2=Enable	RO
9	79691785	LoadAssistEnable	Load Assist Enable	1=Disable, 2=Enable	RO
10	79691786	Mode	Mode	1=Unknown, 2=Init, 3=Off, 4=Standby, 5=Idle, 6=Startup Delay, 7=Active, 8=Maintenance	RO
11	79691787	ActivePowerSource	Active Power Source	1=Primary, 2=Secondary	RO
63	79691839	HumidifierControl	Humidifier Control	1=No, 2=Yes	RO
64	79691840	DehumidificationControl	Dehumidification Control	1=No, 2=Yes	RO
65	79691841	HeatAssistAndReheatControl	Heat Assist And Reheat Control	1=No, 2=Yes	RO
81	79691857	CoilType	Coil Type	1=Not Configured, 2=DX, 3=Energy Saving, 4=Twin Cool, 5=Chilled Water	RO
66	79691842	CoolantLiquidType	Coolant Liquid Type	1=Water, 2=Propylene Glycol, 3=Ethylene Glycol	RO
77	79691853	SuperheatControlWithPressure-Sensor	Superheat Control With Pressure Sensor	1=No, 2=Yes	RO
78	79691854	HeatofRejectionMethod	Heat of Rejection Method	1=Not Configured, 2=Air Cooled, 3=Water Cooled	RO
79	79691855	TwinCoolPrimarySelect	Twin Cool Primary Select	1=DX, 2=Chilled Water	RW
80	79691856	TwinCoolAssist	Twin Cool Assist	1=Disable, 2=Enable	RW
12	79691788	PrimaryPowerSourceCondition	Primary Power Source Condition	1=Bad, 2=Good	RO
13	79691789	SecondaryPowerSourceCondition	Secondary Power Source Condition	1=Bad, 2=Good	RO
14	79691790	ShutdownInputState	Shutdown Input State	1=Open, 2=Closed	RO
15	79691791	AlarmOutputRelayState_1	Alarm Output Relay State 1	1=Open, 2=Closed	RO
16	79691792	AlarmOutputRelayState_2	Alarm Output Relay State 2	1=Open, 2=Closed	RO
17	79691793	AlarmOutputRelayState_3	Alarm Output Relay State 3	1=Open, 2=Closed	RO
18	79691794	AlarmOutputRelayState_4	Alarm Output Relay State 4	1=Open, 2=Closed	RO

Index	ID	Name	Description	Options	Access
19	79691795	UnitControl	Unit Off/On	1=Off, 2=On	RO
20	79691796	CoolingStrategy	Cooling Strategy	1=RACS, 2=HACS, 3=INROW, 4=CACS, 5=Manual	RO
21	79691797	IdleonLeakDetect	Idle on Leak Detect	1=No, 2=Yes	RO
22	79691798	EnableEnvelopeManagement	Enable Envelope Management	1=No, 2=Yes	RO
70	79691846	InputPowerSource	Input Power Source	1=Primary, 2=Secondary	RO
23	79691799	ActiveFlowControlBias	Active Flow Control Bias	1=Positive, 2=Slightly Positive, 3=Zero, 4=Slightly Negative, 5=Negative	RO
24	79691800	DeltaTSetpoint	Delta-T Setpoint	1=10F/5.6C, 2=15F/8.3C, 3=20F/11.1C, 4=25F/13.9C, 5=30F/16.7C, 6=35F/19.4C, 7=40F/22.2C	RO
71	79691847	CondenserTemperatureSetpoint-Mode	Condenser Temperature Setpoint Mode	1=Manual, 2=Auto	RO
72	79691848	SuperheatRecoveryControl	Superheat Recovery Control	1=No, 2=Yes	RO
73	79691849	EEVSyncEnabled	EEV Sync Enabled	1=No, 2=Yes	RO
74	79691850	RHActuatorBySecondaryPower	RH Actuator By Secondary Power	1=No, 2=Yes	RO
75	79691851	EnablePumpDown	Enable Pump Down	1=No, 2=Yes	RO
25	79691801	EvaporatorFanPowerSupplyStatus_1	Evaporator Fan Power Supply Status (A)	1=Off, 2=On	RO
26	79691802	EvaporatorFanPowerSupplyStatus_2	Evaporator Fan Power Supply Status (B)	1=Off, 2=On	RO
76	79691852	DryCoolerControl	Dry Cooler Control	1=Not Configured, 2=On-Off, 3=Modulated	RO
27	79691803	OilManagementControl	Oil Management Control	1=Off, 2=On	RO
28	79691804	LiquidLineSolenoid	Liquid Line Solenoid	1=Open, 2=Closed	RO
29	79691805	DeviceRunHoursAlarmEnabled_1	Device Run Hours Alarm Enabled (Unit)	1=Disable, 2=Enable	RO
82	79691858	CompressorOperatingState	Compressor Operating State	1=Off, 2=On	RO
30	79691806	DeviceRunHoursAlarmEnabled_2	Device Run Hours Alarm Enabled (AirFilter)	1=Disable, 2=Enable	RO
31	79691807	DeviceRunHoursAlarmEnabled_3	Device Run Hours Alarm Enabled (Compressor)	1=Disable, 2=Enable	RO
32	79691808	DeviceRunHoursAlarmEnabled_4	Device Run Hours Alarm Enabled (Fan1)	1=Disable, 2=Enable	RO
33	79691809	DeviceRunHoursAlarmEnabled_5	Device Run Hours Alarm Enabled (Fan2)	1=Disable, 2=Enable	RO
34	79691810	DeviceRunHoursAlarmEnabled_6	Device Run Hours Alarm Enabled (Fan3)	1=Disable, 2=Enable	RO
35	79691811	DeviceRunHoursAlarmEnabled_7	Device Run Hours Alarm Enabled (Fan4)	1=Disable, 2=Enable	RO
36	79691812	DeviceRunHoursAlarmEnabled_8	Device Run Hours Alarm Enabled (Fan5)	1=Disable, 2=Enable	RO
37	79691813	DeviceRunHoursAlarmEnabled_9	Device Run Hours Alarm Enabled (Fan6)	1=Disable, 2=Enable	RO
38	79691814	DeviceRunHoursAlarmEnabled_10	Device Run Hours Alarm Enabled (Fan7)	1=Disable, 2=Enable	RO

Index	ID	Name	Description	Options	Access
39	79691815	DeviceRunHoursAlarmEnabled_11	Device Run Hours Alarm Enabled (Fan8)	1=Disable, 2=Enable	RO
40	79691816	DeviceRunHoursAlarmEnabled_12	Device Run Hours Alarm Enabled (CondenserFan)	1=Disable, 2=Enable	RO
41	79691817	DeviceRunHoursAlarmEnabled_13	Device Run Hours Alarm Enabled (CondensatePump)	1=Disable, 2=Enable	RO
42	79691818	DeviceRunHoursAlarmEnabled_14	Device Run Hours Alarm Enabled (Humidifier)	1=Disable, 2=Enable	RO
43	79691819	DeviceRunHoursAlarmEnabled_15	Device Run Hours Alarm Enabled (Heater1)	1=Disable, 2=Enable	RO
44	79691820	DeviceRunHoursAlarmEnabled_16	Device Run Hours Alarm Enabled (Heater2)	1=Disable, 2=Enable	RO
45	79691821	MaintenanceMode	Maintenance Mode	1=Disable, 2=Enable With Timeout, 3=Enable Indefinitely	RO
46	79691822	ActiveFlowControlStatus	Active Flow Control Status	1=Under, 2=Okay, 3=Over, 4=Unknown, 5=NoAfc	RO
47	79691823	DeviceRunHoursAlarmEnabled_17	Device Run Hours Alarm Enabled (DryCoolerFan)	1=Disable, 2=Enable	RO
60	79691836	MaintenanceMode	Maintenance Mode	1=Disable, 2=Enable With Timeout, 3=Enable Indefinitely	RO
61	79691837	ActiveFlowControlStatus	Active Flow Control Status	1=Under, 2=Okay, 3=Over, 4=Unknown, 5=NoAfc	RO

Notification Class Objects

Index	Bacnet ID	BACnet Name	Description	Access
0	62914560	DefaultNotifier	Default Notification Class	RW