

# Uniflair™ InRow® Direct Expansion Air Conditioners

**RD100 & RD200 Series (Indoor Unit) ACCD752XX Air-cooled Condenser Series (Heat Rejection Unit)**

**ACCD752XX Fluid Cooler Series (Heat Rejection Unit)**

## BACnet Application Map

### 300 mm Indoor Unit:

ACRD100: 10kW 208-240V/1ph/60Hz, Single Power

ACRD101: 10kW 220-240V/1ph/50Hz, Single Power

ACRD200: 10kW 208-240V/1ph/60Hz, Single Power

ACRD201: 10kW 220-240V/1ph/50Hz, Single Power

### Air-cooled Condenser:

ACCD75214 (ACCD75215): 208-240V/1ph/60Hz, UL, 40.6°C/105°F Ambient (46°C/115°F)

ACCD75216 (ACCD75217): 380-415V/3ph/50Hz, CE, 40.6°C/105°F Ambient (46°C/115°F)

ACCD75218 (ACCD75219): 220-240V/1ph/50Hz, CE, 40.6°C/105°F Ambient (46°C/115°F)

ACCD75220: 220-240V/1ph/50Hz, CCC, 40.6°C/105°F Ambient

### Fluid Cooler:

ACCD75210: 460V/3ph/60Hz, UL, 40°C/104°F Ambient

ACCD75255: 480V/3ph/60Hz, UL, 35°C/95°F Ambient

ACCD75256: 380-415V/3ph/50Hz, CE, 35°C/95°F Ambient

ACCD75257: 380-415V/3ph/50Hz, CE, 40°C/104°F Ambient

990-2022768-001

Release Date: 05/2024

This document details the BACnet objects and properties supported by the application firmware v3.1.1.1 and higher (v3.1.1.1+), which is available on the APC or Schneider Electric Web site.

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## Additional Information

- Information on the BACnet protocol specification can found at [www.bacnet.org](http://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 3 User Guide available on the APC website for more information on configuring the NMC 3 for BACnet.
- The application firmware v3.1.1.1+ for ACRD100 & ACRD200 series cooling units supports BACnet/IP only.

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# Analog Value Objects

Index	ID	Name	Description	Units	Access
0	8388608	Startup Delay	Startup Delay	seconds (73)	RW
1	8388609	Altitude	Altitude	meters (31)	RW
2	8388610	Cool Setpoint	Cool Setpoint	degrees-Celsius (62)	RW
3	8388611	Supply Air Setpoint (Spot Prop)	Supply Air Setpoint (Spot Prop)	degrees-Celsius (62)	RW
4	8388612	Supply Air Setpoint (InRow, HACS, RACS, CACS)	Supply Air Setpoint (InRow/HACS/RACS/CACS)	degrees-Celsius (62)	RW
5	8388613	Cool Deadband	Cool Deadband	delta-degrees-Kelvin (121)	RW
6	8388614	Number of Backup Units	Number of Backup Units	no-units (95)	RW
7	8388615	Cool Gain (P)	Cool Gain (P)	no-units (95)	RW
8	8388616	Cool Derivative (D)	Cool Derivative (D)	no-units (95)	RW
9	8388617	Cool Reset Rate (I)	Cool Reset Rate (I)	no-units (95)	RW
10	8388618	Supply Air Temperature	Supply Air Temperature	degrees-Celsius (62)	RO
11	8388619	Return Air Temperature	Return Air Temperature	degrees-Celsius (62)	RO
12	8388620	Suction Pressure	Suction Pressure	kilopascals (54)	RO
13	8388621	Discharge Pressure	Discharge Pressure	kilopascals (54)	RO
14	8388622	Filter Differential Pressure	Filter Differential Pressure	pascals (53)	RO
15	8388623	Fluid Valve Position	Fluid Valve Position	percent (98)	RO
16	8388624	Rack Inlet Temperature	Rack Inlet Temperature	degrees-Celsius (62)	RO
17	8388625	Rack Inlet Max Temperature	Rack Inlet Max Temperature	degrees-Celsius (62)	RO
18	8388626	Rack Inlet Min Temperature	Rack Inlet Min Temperature	degrees-Celsius (62)	RO
19	8388627	Suction Temperature	Suction Temperature	degrees-Celsius (62)	RO
20	8388628	Group Max Return Temperature	Group Max Return Temperature	degrees-Celsius (62)	RO
21	8388629	Group Min Return Temperature	Group Min Return Temperature	degrees-Celsius (62)	RO
22	8388630	Hot Gas Bypass Valve Position	Hot Gas Bypass Valve Position	percent (98)	RO
23	8388631	Cool Demand	Cool Demand	kilowatts (48)	RO
24	8388632	Air Flow	Air Flow	liters-per-second (87)	RO
25	8388633	Cool Output	Cool Output	kilowatts (48)	RO
26	8388634	Superheat	Superheat	delta-degrees-Kelvin (121)	RO
27	8388635	Fan Speed	Fan Speed	percent (98)	RO
28	8388636	Compressor Run Hours	Compressor Run Hours	hours (71)	RO
29	8388637	Evaporator Fan Runhours_1	Evaporator Fan Runhours 1	hours (71)	RO
30	8388638	Evaporator Fan Runhours_2	Evaporator Fan Runhours 2	hours (71)	RO
31	8388639	Evaporator Fan Runhours_3	Evaporator Fan Runhours 3	hours (71)	RO
32	8388640	Evaporator Fan Runhours_4	Evaporator Fan Runhours 4	hours (71)	RO
33	8388641	Evaporator Fan Runhours_5	Evaporator Fan Runhours 5	hours (71)	RO

Index	ID	Name	Description	Units	Access
34	8388642	Evaporator Fan Runhours_6	Evaporator Fan Runhours 6	hours (71)	RO
35	8388643	Air Filter Runhours	Air Filter Runhours	hours (71)	RO
36	8388644	Upper Fan Power Supply Runhours	Upper Fan Power Supply Runhours	hours (71)	RO
37	8388645	Condensate Pump Runhours	Condensate Pump Runhours	hours (71)	RO
38	8388646	Lower Fan Power Supply Runhours	Lower Fan Power Supply Runhours	hours (71)	RO
39	8388647	Unit Runhours	Unit Runhours	hours (71)	RO
40	8388648	Rack Inlet Temperature High Threshold	Rack Inlet Temperature High Threshold	degrees-Celsius (62)	RW
41	8388649	Supply Air Temperature High Threshold	Supply Air Temperature High Threshold	degrees-Celsius (62)	RW
42	8388650	Return Air Temperature High Threshold	Return Air Temperature High Threshold	degrees-Celsius (62)	RW
43	8388651	Air Filter Maintenance Interval	Air Filter Maintenance Interval	weeks (69)	RW
44	8388652	Group Cooling Demand	Group Cooling Demand	kilowatts (48)	RO
45	8388653	Group Airflow Demand	Group Airflow Demand	liters-per-second (87)	RO
46	8388654	Group Cool Output	Group Cool Output	kilowatts (48)	RO

# Multi-State Value Objects

Index	ID	Name	Description	Options	Access
0	79691776	Idle on Leak Detect	Idle on Leak Detect	1=No, 2=Yes	RW
1	79691777	Configuration Type	Configuration Type	1=RACS, 2=Spot, 3=In-Row, 4=HACS, 5=CACS	RW
2	79691778	Operating Mode	Operating Mode	1=Standby, 2=On, 3=Idle, 4=Refrigerant Fill, 5=Backup, 6=Assist	RO
3	79691779	Unit Type	Unit Type	1=Unconfigured, 2=Fluid Cooled, 3=Air Cooled	RO
4	79691780	Compressor State	Compressor State	1=Off, 2=On	RO
5	79691781	Unit Role Override	Unit Role Override	1=Automatic, 2=Forced On	RW
6	79691782	Idle On Cool Fail	Idle On Cool Fail	1=No, 2=Yes	RW
7	79691783	Fan Speed Preference	Fan Speed Preference	1=Low, 2=Med-Low, 3=Med, 4=Med-High, 5=High	RW
8	79691784	Capacity Control	Capacity Control	1=Discrete, 2=Proportional	RW
9	79691785	Fan Speed Control	Fan Speed Control	1=Automatic, 2=Manual	RW
10	79691786	Run-Time Balancing Enable	Run-Time Balancing Enable	1=Disabled, 2=Enabled	RW
11	79691787	Load Assist Enable	Load Assist Enable	1=Disabled, 2=Enabled	RW
12	79691788	Input Normal State	Input Normal State	1=Open, 2=Closed	RW
13	79691789	Input State	Input State	1=Open, 2=Closed	RO
14	79691790	Output Normal State	Output Normal State	1=Open, 2=Closed	RW
15	79691791	Output State	Output State	1=Open, 2=Closed	RO
16	79691792	Output Source	Output Source	1=Any Alarm, 2=Only Critical Alarms	RW
17	79691793	OHE Output State	OHE Output State	1=Open, 2=Closed	RO
18	79691794	OHE Input Normal State	OHE Input Normal State	1=Open, 2=Closed	RW
19	79691795	OHE Input State	OHE Input State	1=Open, 2=Closed	RO
20	79691796	Air Filter Alarm	Air Filter Alarm	1=Disable, 2=Enable	RW

# Binary Value Objects (data)

None.

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

Index	ID	Name	Description	Access
0	20971520	BN2C02	Internal Communication Fault	RO
1	20971521	BN2C04	A-Link Isolation Relay Fault	RO
2	20971522	BN2C06	Relay Output Abnormal	RO
3	20971523	BN2C08	External Communication Fault	RO
4	20971524	BN2C0A	Spare 2	RO
5	20971525	BN2C0C	Spare 3	RO
6	20971526	BN2C0E	Spare 4	RO
7	20971527	BN2C10	Cooling Failure	RO
8	20971528	BN2C12	Rack Temperature High Violation	RO
9	20971529	BN2C14	Air Filter Clogged	RO
10	20971530	BN2C16	Upper Return Air Sensor Fault	RO
11	20971531	BN2C18	Spare 5	RO
12	20971532	BN2C1A	Lower Return Air Sensor Fault	RO
13	20971533	BN2C1C	Upper Supply Air Sensor Fault	RO
14	20971534	BN2C1E	Middle Supply Air Sensor Fault	RO
15	20971535	BN2C20	Lower Supply Air Sensor Fault	RO
16	20971536	BN2C22	Rack Temperature Sensor Fault	RO
17	20971537	BN2C24	Condenser Fluid Valve Actuator Fault	RO
18	20971538	BN2C26	High Discharge Pressure	RO
19	20971539	BN2C28	Low Suction Pressure	RO
20	20971540	BN2C2A	Evaporator Fan 1 Fault	RO
21	20971541	BN2C2C	Evaporator Fan 2 Fault	RO
22	20971542	BN2C2E	Evaporator Fan 3 Fault	RO
23	20971543	BN2C30	Evaporator Fan 4 Fault	RO
24	20971544	BN2C32	Evaporator Fan 5 Fault	RO
25	20971545	BN2C34	Evaporator Fan 6 Fault	RO
26	20971546	BN2C36	Water Detected	RO
27	20971547	BN2C38	Condensate Pump Fault	RO
28	20971548	BN2C3A	Condensate Pan Full Fault	RO
29	20971549	BN2C3C	Top Fan Power Supply Fault Detected	RO
30	20971550	BN2C3E	Lower Fan Power Supply Fault	RO
31	20971551	BN2C40	Air Filter Run Hours Violation	RO
32	20971552	BN2C42	Group Communication Fault	RO
33	20971553	BN2C44	Supply Air High Temperature Violation	RO
34	20971554	BN2C46	Return Air High Temperature Violation	RO
35	20971555	BN2C48	Filter DP Sensor Failure	RO



Index	ID	Name	Description	Access
36	20971556	BN2C4A	Suction Temperature Sensor Failure	RO
37	20971557	BN2C4C	Suction Pressure Sensor Failure	RO
38	20971558	BN2C4E	Discharge Pressure Sensor Failure	RO
39	20971559	BN2C50	Input Contact Fault	RO
40	20971560	BN2C52	Persistent High Discharge Pressure Fault	RO
41	20971561	BN2C54	Persistent Low Suction Pressure Fault	RO
42	20971562	BN2C56	Spare 6	RO
43	20971563	BN2C58	Spare 7	RO
44	20971564	BN2C5A	Spare 8	RO
45	20971565	BN2C5C	Outside Heat Exchanger Fault	RO
46	20971566	BN2C5E	Spare 9	RO
47	20971567	BN2C60	Factory Configuration Not Completed	RO
48	20971568	BN2C62	Liquid Refrigerant Sensor Fault	RO
49	20971569	BN2C64	Excessive Compressor Cycling Alarm	RO
50	20971570	BN2C66	No Backup Units Available Alarm	RO
51	20971571	BN2C68	Compressor Failed To Start	RO
52	20971572	BN2C6A	EcoAisle Door Open	RO
53	20971573	BN2C6C	Unexpected Number of Active Flow Controllers	RO
54	20971574	BN2C6E	Insufficient Airflow	RO
55	20971575	BN2C70	Active Flow Controller Sensor Fault	RO
56	20971576	BN2C72	Hot Gas Bypass Valve Fault	RO

# Character String Value Objects

Index	ID	Name	Description	Max. Chars	Access
0	167772160	Model Number	Model Number	19	RO
1	167772161	Serial Number	Serial Number	19	RO
2	167772162	Firmware Revision	Firmware Revision	7	RO
3	167772163	Hardware Revision	Hardware Revision	7	RO

# Notification Class Objects

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

# Index

BACnet Name	Object Type	Offset
Air Filter Alarm	Multi-State Value	21
Air Filter Maintenance Interval	Analog Value	44
Air Filter Runhours	Analog Value	36
Air Flow	Analog Value	25
Altitude	Analog Value	2
BN2C02	Binary Value	1
BN2C04	Binary Value	2
BN2C06	Binary Value	3
BN2C08	Binary Value	4
BN2C0A	Binary Value	5
BN2C0C	Binary Value	5
BN2C0E	Binary Value	5
BN2C10	Binary Value	5
BN2C12	Binary Value	6
BN2C14	Binary Value	7
BN2C16	Binary Value	8
BN2C18	Binary Value	9
BN2C1A	Binary Value	9
BN2C1C	Binary Value	10
BN2C1E	Binary Value	11
BN2C20	Binary Value	12
BN2C22	Binary Value	13
BN2C24	Binary Value	14
BN2C26	Binary Value	15
BN2C28	Binary Value	16
BN2C2A	Binary Value	17
BN2C2C	Binary Value	18
BN2C2E	Binary Value	19
BN2C30	Binary Value	20
BN2C32	Binary Value	21
BN2C34	Binary Value	22
BN2C36	Binary Value	23
BN2C38	Binary Value	24
BN2C3A	Binary Value	25
BN2C3C	Binary Value	26
BN2C3E	Binary Value	27
BN2C40	Binary Value	28
BN2C42	Binary Value	29

BACnet Name	Object Type	Offset
BN2C44	Binary Value	30
BN2C46	Binary Value	31
BN2C48	Binary Value	32
BN2C4A	Binary Value	33
BN2C4C	Binary Value	34
BN2C4E	Binary Value	35
BN2C50	Binary Value	36
BN2C52	Binary Value	37
BN2C54	Binary Value	38
BN2C56	Binary Value	39
BN2C58	Binary Value	39
BN2C5A	Binary Value	39
BN2C5C	Binary Value	39
BN2C5E	Binary Value	40
BN2C60	Binary Value	40
BN2C62	Binary Value	41
BN2C64	Binary Value	42
BN2C66	Binary Value	43
BN2C68	Binary Value	44
BN2C6A	Binary Value	45
BN2C6C	Binary Value	46
BN2C6E	Binary Value	47
BN2C70	Binary Value	48
BN2C72	Binary Value	49
Capacity Control	Multi-State Value	9
Compressor Run Hours	Analog Value	29
Compressor State	Multi-State Value	5
Condensate Pump Runhours	Analog Value	38
Configuration Type	Multi-State Value	2
Cool Deadband	Analog Value	6
Cool Demand	Analog Value	24
Cool Derivative (D)	Analog Value	9
Cool Gain (P)	Analog Value	8
Cool Output	Analog Value	26
Cool Reset Rate (I)	Analog Value	10
Cool Setpoint	Analog Value	3
DefaultNotifier	Notification Class	1
Discharge Pressure	Analog Value	14
Evaporator Fan Runhours_1	Analog Value	30
Evaporator Fan Runhours_2	Analog Value	31

BACnet Name	Object Type	Offset
Evaporator Fan Runhours_3	Analog Value	32
Evaporator Fan Runhours_4	Analog Value	33
Evaporator Fan Runhours_5	Analog Value	34
Evaporator Fan Runhours_6	Analog Value	35
Fan Speed	Analog Value	28
Fan Speed Control	Multi-State Value	10
Fan Speed Preference	Multi-State Value	8
Filter Differential Pressure	Analog Value	15
Firmware Revision	Character String	3
Fluid Valve Position	Analog Value	16
Group Airflow Demand	Analog Value	46
Group Cool Output	Analog Value	47
Group Cooling Demand	Analog Value	45
Group Max Return Temperature	Analog Value	21
Group Min Return Temperature	Analog Value	22
Hardware Revision	Character String	4
Hot Gas Bypass Valve Position	Analog Value	23
Idle On Cool Fail	Multi-State Value	7
Idle on Leak Detect	Multi-State Value	1
Input Normal State	Multi-State Value	13
Input State	Multi-State Value	14
Load Assist Enable	Multi-State Value	12
Lower Fan Power Supply Runhours	Analog Value	39
Model Number	Character String	1
Number of Backup Units	Analog Value	7
OHE Input Normal State	Multi-State Value	19
OHE Input State	Multi-State Value	20
OHE Output State	Multi-State Value	18
Operating Mode	Multi-State Value	3
Output Normal State	Multi-State Value	15
Output Source	Multi-State Value	17
Output State	Multi-State Value	16
Rack Inlet Max Temperature	Analog Value	18
Rack Inlet Min Temperature	Analog Value	19
Rack Inlet Temperature	Analog Value	17
Rack Inlet Temperature High Threshold	Analog Value	41
Return Air Temperature	Analog Value	12
Return Air Temperature High Threshold	Analog Value	43
Run-Time Balancing Enable	Multi-State Value	11
Serial Number	Character String	2

<b>BACnet Name</b>	<b>Object Type</b>	<b>Offset</b>
Startup Delay	Analog Value	1
Suction Pressure	Analog Value	13
Suction Temperature	Analog Value	20
Superheat	Analog Value	27
Supply Air Setpoint (InRow, HACS, RACS, CACS)	Analog Value	5
Supply Air Setpoint (Spot Prop)	Analog Value	4
Supply Air Temperature	Analog Value	11
Supply Air Temperature High Threshold	Analog Value	42
Unit Role Override	Multi-State Value	6
Unit Runhours	Analog Value	40
Unit Type	Multi-State Value	4
Upper Fan Power Supply Runhours	Analog Value	37

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990-2022768-001