

Systems Integration

YORK BACnet Solution: YK Chiller with Standard Starter

Table 1. YK Chiller with Standard Starter APOGEE Points, Application Number: 4056.

Point	Type	Description	Range/Units ^{a b c}
1	LAO	Device Address	–
2	LAO	Device Application	–
3	LAO	Leaving Chilled Liquid Setpoint Selected	°F °C
4	LAO	Motor Current Limit Setpoint Selected	% FLA
7	LDO	Remote Start Stop	Stop/Start
11	LAI	Leaving Chilled Liquid Temperature	°F °C
12	LAI	Return Chilled Liquid Temperature	°F °C
13	LAI	Evaporator Pressure	psi kPa
14	LAI	Condenser Pressure	psi kPa
15	LAI	Oil Pressure Differential	psi kPa
16	LAI	Return Condenser Liquid Temperature	°F °C
17	LAI	Leaving Condenser Liquid Temperature	°F °C
18	LAI	Motor Current Percent Fla	% FLA
25	LAI	Leaving Chilled Liquid Setpoint Selected	°F °C
26	LAI	Motor Current Limit Setpoint Selected	% FLA
27	LAI	Evaporator Saturation Temperature	°F °C
28	LAI	Condenser Saturation Temperature	°F °C
29	LAI	Discharge Temperature	°F °C
30	LAI	Oil Sump Temperature	°F °C

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Table 1. YK Chiller with Standard Starter APOGEE Points, Application Number: 4056. (continued)

Point	Type	Description	Range/Units ^{a b c}
31	LAI	Purge Pressure	psi <i>kPa</i>
32	LAI	Unit Operating Hours	hrs
33	LAI	Unit System Starts	starts
34	LAI	Oil Sump Pressure	psi <i>kPa</i>
35	LAI	Oil Pump Pressure	psi <i>kPa</i>
36	LDI	Motor Run Contacts	Off/On
37	LDI	Liquid Line Solenoid	Off/On
38	LDI	Chilled Liquid Pump	Off/On
39	LDI	Panel Start Switch	Off/On
40	LDI	Chilled Liquid Flow Switch	Off/On
56	LAI	Antirecycle Time Remaining	sec
57	LAI	Warning Code	See Table 2
58	LAI	Operation Code	See Table 3
59	LAI	Safety Shutdown Code	See Table 4
60	LAI	Cycling Shutdown Code	See Table 5
63	LAI	Pre Rotation Vanes Position	%
64	LAI	Acc Map Output Frequency	Hz
65	LAI	Refrigerant Level Setpoint	–
66	LAI	Thrust Bearing Proximity Position	–
67	LAI	Thrust Bearing Proximity Reference	–

^a Values noted for LDIs and LDOs are in the following format: OFF text/ON text.
^b This column indicates the value/range or engineering units or both if known.
^c The default English value is not italicized. An italicized entry indicates an SI value.

Table 2. Warning Codes.

Value	Description
1	No Abnormal Condition
2	Real-Time Clock Failure
3	Default Setpoints Loaded
4	Evaporator Or Condenser Transducer Error
5	Evaporator - Low Pressure Limit
6	Condenser - High Pressure Limit
7	Refrigerant Level Out Of Range
8	Standby Lube - Low Oil Pressure

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Table 2. Warning Codes. (continued)

Value	Description
15	Motor - High Current Limit
16	Vanes Uncalibrated
17	Vanes Uncalibrated - Fixed Speed Operation
26	Seal Lubrication In Process
27	External I/O Board Serial Communications

Table 3. Operational Codes.

Value	Description
1	Unit Stopped - Ready to Start
2	Unit Stopped - Local Shutdown
3	Unit Stopped - Remote Shutdown
4	Unit Stopped - Warning Active
5	Unit Stopped - Cycling Shutdown
6	Unit Stopped - Safety Shutdown
7	Unit Start Inhibit
8	Unit Starting
9	Unit Running - No Abnormal Condition
10	Unit Running - Warning Active
11	Unit Running - Chiller Unload Before Shutdown
12	Unit Coastdown

Table 4. Safety Codes.

Value	Description
1	No Abnormal Condition
2	Evaporator - Low Pressure
3	Evaporator - Transducer Or Leaving Liquid Probe
4	Evaporator - Temperature Transducer
5	Condenser - High Pressure Contacts Open
6	Condenser - High Pressure
7	Condenser - Pressure Transducer Out Of Range
8	Auxiliary Safety - Contacts Closed
9	Discharge - Low Temperature
10	Discharge - High Temperature
11	Oil - High Temperature
12	Oil - Low Differential Pressure
13	Oil - High Differential Pressure
14	Oil - Pump Pressure Transducer Out Of Range

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Table 4. Safety Codes. (continued)

Value	Description
15	Oil - Sump Pressure Transducer Out Of Range
19	Oil - Differential Pressure Calibration
21	Oil - Variable Speed Pump - Pressure Setpoint
22	Control Panel - Power Failure
24	Motor Or Starter - Current Imbalance
25	Thrust Bearing - Proximity Probe Clearance
26	Thrust Bearing - Proximity Probe Uncalibrated
27	Thrust Bearing - Proximity Probe Out Of Range
50	Starter - Invalid Motor Selection
52	Evaporator - Low Pressure
53	Evaporator - Low Pressure - Smart Freeze

Table 5. Cycling Codes.

Value	Description
1	No Abnormal Condition
2	Multi-Unit Cycling - Contacts Open
3	System Cycling - Contacts Open
5	Oil - Low Temperature
6	Control Panel - Power Failure
7	Leaving Chilled Liquid - Low Temperature
8	Leaving Chilled Liquid - Flow Switch Open
9	Condenser - Flow Switch Open
10	Motor Controller - Contacts Open
11	Motor Controller - Loss Of Current
12	Power Fault
13	Control Panel - Schedule
14	Starter - Low Supply Line Voltage
15	Starter - High Supply Line Voltage
16	Proximity Probe - Low Supply Voltage
17	Oil - Variable Speed Pump - Drive Contacts Open

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