



Object Naming Conventions

The communicated points for the Symbio™ controllers are generally named according to their function. While many of the points are read-only, others include both read and write capability. The established naming convention helps to identify the capabilities of each point. For most points, the suffix identifies the capability according to the following definition. While there are some exceptions, the majority of the points have been defined according to these guidelines.

Suffix	Description
Status	Points with the Status suffix are defined as read-only. The status point reports the value being used by the controller.
Local	Points with the Local suffix are defined as read-only. The local point reports values associated with controller sensors, both wired and wireless. The local value may or may not be actively used by the controller, depending on the presence or absence of a communicated value (BAS). When both a local and communicated value exist, the communicated value is used.
Active	Points with the Active suffix are defined as read-only. Points designated as active are normally the result of the arbitration between a communicated value (BAS) and at least one value local to the equipment, such as a sensor or default setpoint. The active point reports the value being input to the controller.
Setpoint	Points with the Setpoint suffix are defined as either read-only or read/write. For BACnet®, the binary input, analog input and multi-state input points are all read-only. These setpoints report the value currently in use by the controller. The analog value, binary value and multi-state value points are all read/write. These points are provided for use by the building automation system (BAS). When used, these points are written internally to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquish default value/state. Refer to the Appendix for additional information.
Input	Points with the Input suffix are defined as read-only. These points normally reflect the status of a sensor input, either hardwired or communicating wirelessly (Air-Fi®). However, the input point reflects the arbitrated result of the controller sensor input and a communicated value, if present. When both a controller sensor and communicated value exist, the controller will use and report the communicated value.
Arbitrator	Points with the “Arbitrator” suffix are to be used as read-only. The arbitrator prioritizes inputs from communicating points, hardwired points and stored defaults points. The priority array of the arbitration point displays each of the values provided, including the active status, indicating which of the input sources is being used. Refer to the Appendix for additional information.
BAS	Points with the BAS suffix are defined as read/write. These points are provided for use by the building automation system (BAS). When used, these points are written to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquished default value/state. Refer to the Appendix for additional information.
Command	Points with the Command suffix are defined as read/write. These points are written to change the default behavior of the controller. Once written, these point values may be persisted.
Request	Points with the Request suffix are defined as read/write. These points are written to request a change the operating behavior of the controller.



Object Data Points and Diagnostic Data Points

The following tables are sorted as follows:

- Tables are listed by input/output type and sorted by object identifier. These tables provide the user with the unit's type for each object
- Tables are sorted by object name and provide a complete list of object names, types, values/ranges, and descriptions.

Note: Not all points are available to the user. The available data points are defined during self-configuration and are dependent on the type of equipment.



Object Identifier	Object Name	Description	Units	Configuration Dependency
AI- 10100	Active Cool/Heat Setpoint Temperature	Indicates the value of the active Cool/Heat Setpoint actively being used by the chiller.	Temperature	Standard
AI- 10101	External Chilled Water Setpoint	Indicates the External Chilled Water Setpoint value actively being used by the chiller.	Temperature	External Setpoint
AI- 10102	Front Panel Chilled Water Setpoint	Indicates the value of Front Panel Chilled Water setpoint. Depending on the setpoint Source setting and BAS communication status, it may be used to define the currently active setpoint.	Temperature	Standard
AI- 10103	Active Demand Limit Setpoint	Indicates the demand limit setpoint value actively being used by the chiller.	Percentage	Standard
AI- 10104	External Demand Limit Setpoint	Indicates the Status of the External Demand Limit Setpoint.	Percentage	External Setpoint
AI- 10105	Front Panel Demand Limit Setpoint	Indicates the Local setting for the Unit's Demand Limit setpoint in % of rated current.	Percentage	Standard
AI- 10106	Evaporator Entering Water Temperature	Indicates the current temperature of the water entering the evaporator.	Temperature	Standard
AI- 10107	Evaporator Leaving Water Temperature	Indicates the current temperature of the water leaving the evaporator.	Temperature	Standard
AI- 10108	Outdoor Air Temperature	Indicates the current temperature of the outdoor air.	Temperature	Standard
AI- 10109	Number of Circuits	Indicates the number of refrigeration circuits in the chiller.	None	Standard
AI- 10110	Unit Source ID	Indicates the last diagnostic of the chiller Separately, individual diagnostics are reported with dedicated points, variables, registers.	None	Standard
AI- 10111	Number of Compressors Circuit 1	Indicates the number of compressors on circuit 1 of the chiller.	None	Standard
AI- 10112	Number of Compressors Circuit 2	Indicates the number of compressors on circuit 2 of the chiller.	None	Standard
AI- 10113	Actual Running Capacity	Indicates the measurement of the power being consumed by the chiller.	Percentage	Standard
AI- 10114	Air Flow Percentage Circuit 1	Indicates the approximate air flow percentage of circuit 1.	Percentage	Standard
AI- 10115	Evaporator Refrigerant Pressure Circuit 1	Indicates the current pressure of the refrigerant in the evaporator on circuit 1.	Pressure, Fluidic	Standard
AI- 10116	Condenser Refrigerant Pressure Circuit 1	Indicates the current pressure of the refrigerant in the condenser on circuit 1.	Pressure, Fluidic	Standard
AI- 10117	Differential Refrigerant Pressure Circuit 1	Indicates the pressure difference between the suction and discharge lines on circuit 1.	Pressure, Fluidic	Standard
AI- 10118	Evaporator Saturated Refrigerant Temperature Circuit 1	Indicates the saturated refrigerant temperature of the evaporator on circuit 1.	Temperature	Standard
AI- 10119	Condenser Saturated Refrigerant Temperature Circuit 1	Indicates the saturated refrigerant temperature of the condenser on circuit 1.	Temperature	Standard
AI- 10120	Sub Cooled Liquid Temperature Circuit 1	Indicates the sub cooled liquid temperature on circuit 1.	Temperature	Standard
AI- 10121	Refrigerant Discharge Temperature - Compressor 1A	Indicates the current temperature of the refrigerant being discharged from Compressor 1A.	Temperature	Standard
AI- 10122	Oil Pressure - Compressor 1A	Indicates the oil pressure on the Compressor 1A.	Pressure, Fluidic	Standard
AI- 10123	Starts - Compressor 1A	Indicates the number of starts of Compressor 1A.	None	Standard
AI- 10124	Run Time - Compressor 1A	Indicates the run time of Compressor 1A.	None	Standard
AI- 10125	Air Flow Percentage Circuit 2	Indicates the approximate air flow percentage of circuit 2.	Percentage	Standard
AI- 10126	Evaporator Refrigerant Pressure Circuit 2	Indicates the current pressure of the refrigerant in the evaporator on circuit 2.	Pressure, Fluidic	Standard
AI- 10127	Condenser Refrigerant Pressure Circuit 2	Indicates the current pressure of the refrigerant in the condenser on circuit 2.	Pressure, Fluidic	Standard
AI- 10128	Differential Refrigerant Pressure Circuit 2	Indicates the pressure difference between the suction and discharge lines on circuit 2.	Pressure, Fluidic	Standard
AI- 10129	Evaporator Saturated Refrigerant Temperature Circuit 2	Indicates the saturated refrigerant temperature of the evaporator on circuit 2.	Temperature	Standard
AI- 10130	Condenser Saturated Refrigerant Temperature Circuit 2	Indicates the saturated refrigerant temperature of the condenser on circuit 2.	Temperature	Standard



Object Identifier	Object Name	Description	Units	Configuration Dependency
AI- 10131	Sub Cooled Liquid Temperature Circuit 2	Indicates the sub cooled liquid temperature on circuit 2.	Temperature	Standard
AI- 10132	Refrigerant Discharge Temperature - Compressor 2A	Indicates the current temperature of the refrigerant being discharged from Compressor 2A.	Temperature	Standard
AI- 10133	Oil Pressure - Compressor 2A	Indicates the oil pressure on the Compressor 2A.	Pressure, Fluidic	Standard
AI- 10134	Refrigerant Discharge Temperature - Compressor 1B	Indicates the current temperature of the refrigerant being discharged from Compressor 1B.	Temperature	Compressor 1B
AI- 10135	Oil Pressure - Compressor 1B	Indicates the oil pressure on the Compressor 1B.	Pressure, Fluidic	Compressor 1B
AI- 10136	Starts - Compressor 1B	Indicates the number of starts of Compressor 1B.	None	Compressor 1B
AI- 10137	Run Time - Compressor 1B	Indicates the run time of Compressor 1B.	None	Compressor 1B
AI- 10138	Starts - Compressor 2A	Indicates the number of starts of Compressor 2A.	None	Standard
AI- 10139	Run Time - Compressor 2A	Indicates the run time of Compressor 2A.	None	Standard
AI- 10140	Refrigerant Discharge Temperature - Compressor 2B	Indicates the current temperature of the refrigerant being discharged from Compressor 2B.	Temperature	Compressor 2B
AI- 10141	Oil Pressure - Compressor 2B	Indicates the oil pressure on the Compressor 2B.	Pressure, Fluidic	Compressor 2B
AI- 10142	Starts - Compressor 2B	Indicates the number of starts of Compressor 2B.	None	Compressor 2B
AI- 10143	Run Time - Compressor 2B	Indicates the run time of Compressor 2B.	None	Compressor 2B
AI- 10144	Free Cooling Capacity Status	Indicates the % capacity of the free cooling being used.	Percentage	Free Cooling
AI- 10145	Free Cooling Entering Water Temperature Active	Indicates the entering water temperature of the free cooling circuit.	Temperature	Free Cooling
AI- 10146	Free Cooling Entering Glycol Temperature	Indicates the entering glycol water temperature of the free cooling circuit.	Temperature	Free Cooling, Glycol Free
AI- 10147	Free Cooling Leaving Glycol Temperature	Indicates the leaving glycol water temperature of the free cooling circuit.	Temperature	Free Cooling, Glycol Free
AI- 10148	Free Cooling Glycol Pressure	Indicates the glycol pressure of the free cooling circuit.	Pressure, Fluidic	Free Cooling, Glycol Free
AI- 10149	Drive Motor Average Current RLA Compressor 1A	Indicates the average current at AFD for Compressor 1A in terms of % RLA.	Percentage	Generic AFD
AI- 10150	Drive Motor Average Current RLA Compressor 2A	Indicates the average current at AFD for Compressor 2A in terms of % RLA.	Percentage	Generic AFD
AI- 10151	Heat Recovery Entering Water Temperature	Indicates the heat recovery entering water temperature.	Temperature	Heat Recovery
AI- 10152	Heat Recovery Leaving Water Temperature	Indicates the heat recovery leaving water temperature.	Temperature	Heat Recovery
AI- 10153	Evaporator Shell Refrigerant Pressure Circuit 1	Indicates the measurement of evaporator shell refrigerant pressure in circuit 1.	Pressure, Fluidic	Evaporator Isolation Valves
AI- 10154	Evaporator Shell Refrigerant Pressure Circuit 2	Indicates the measurement of evaporator shell refrigerant pressure in circuit 2.	Pressure, Fluidic	Evaporator Isolation Valves
AI- 10155	Phase AB Voltage - Compressor 1A	Indicates the measurement of voltage in Phase AB for Compressor 1A.	Voltage	Line Voltage Sensing
AI- 10156	Phase AB Voltage - Compressor 1B	Indicates the measurement of voltage in Phase AB for Compressor 1B.	Voltage	Line Voltage Sensing
AI- 10157	Phase AB Voltage - Compressor 2A	Indicates the measurement of voltage in Phase AB for Compressor 2A.	Voltage	Line Voltage Sensing
AI- 10158	Phase AB Voltage - Compressor 2B	Indicates the measurement of voltage in Phase AB for Compressor 2B.	Voltage	Line Voltage Sensing
AI- 10159	Oil Temperature - Compressor 1A	Indicates the measurement of oil temperature in Compressor 1A.	Temperature	Oil Cooler
AI- 10160	Oil Temperature - Compressor 1B	Indicates the measurement of oil temperature in Compressor 1B.	Temperature	Oil Cooler
AI- 10161	Oil Temperature - Compressor 2A	Indicates the measurement of oil temperature in Compressor 2A.	Temperature	Oil Cooler



Object Identifier	Object Name	Description	Units	Configuration Dependency
AI- 10162	Oil Temperature - Compressor 2B	Indicates the measurement of oil temperature in Compressor 2B.	Temperature	Oil Cooler
AI- 10163	Oil Supply Temperature Circuit 1	Indicates the measurement of oil supply temperature in circuit 1.	Temperature	GP4 Compressor
AI- 10164	Oil Supply Temperature Circuit 2	Indicates the measurement of oil supply temperature in circuit 2.	Temperature	GP4 Compressor
AI- 10165	Unit Power Consumption	Indicates the measurement of the power being consumed by the chiller.	Power, Electrical	Energy Meter
AI- 10166	Energy Consumption Lifetime	Indicates the total energy consumption of the chiller (for the lifetime of the chiller).	Power, Electrical	Energy Meter
AI- 10167	Energy Consumption	Indicates the total energy consumption of the chiller (since last accumulation reset).	Power, Electrical	Energy Meter
AI- 10168	Evaporator Differential Water Pressure	Indicates the differential water pressure of the evaporator.	Pressure, Fluidic	Variable Primary Flow
AI- 10169	System Chilled Water Differential Water Pressure	Indicates the differential water pressure of the chilled water system.	Pressure, Fluidic	Variable Primary Flow
AI- 10170	Evaporator Differential Water Pressure Setpoint Status	Indicates the status of differential water pressure setpoint of the evaporator.	Pressure, Fluidic	Variable Primary Flow
AI- 10171	Line 1 Current - Compressor 1A	Indicates the measurement of Line 1 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
AI- 10172	Line 2 Current - Compressor 1A	Indicates the measurement of Line 2 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
AI- 10173	Line 3 Current - Compressor 1A	Indicates the measurement of Line 3 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
AI- 10174	Line 1 Current RLA - Compressor 1A	Indicates the measurement of Line 1 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10175	Line 2 Current RLA - Compressor 1A	Indicates the measurement of Line 2 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10176	Line 3 Current RLA - Compressor 1A	Indicates the measurement of Line 3 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10177	Line 1 Current - Compressor 1B	Indicates the measurement of Line 1 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
AI- 10178	Line 2 Current - Compressor 1B	Indicates the measurement of Line 2 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
AI- 10179	Line 3 Current - Compressor 1B	Indicates the measurement of Line 3 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
AI- 10180	Line 1 Current RLA - Compressor 1B	Indicates the measurement of Line 1 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10181	Line 2 Current RLA - Compressor 1B	Indicates the measurement of Line 2 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10182	Line 3 Current RLA - Compressor 1B	Indicates the measurement of Line 3 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10183	Line 1 Current - Compressor 2A	Indicates the measurement of Line 1 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
AI- 10184	Line 2 Current - Compressor 2A	Indicates the measurement of Line 2 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
AI- 10185	Line 3 Current - Compressor 2A	Indicates the measurement of Line 3 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
AI- 10186	Line 1 Current RLA - Compressor 2A	Indicates the measurement of Line 1 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10187	Line 2 Current RLA - Compressor 2A	Indicates the measurement of Line 2 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10188	Line 3 Current RLA - Compressor 2A	Indicates the measurement of Line 3 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10189	Line 1 Current - Compressor 2B	Indicates the measurement of Line 1 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
AI- 10190	Line 2 Current - Compressor 2B	Indicates the measurement of Line 2 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
AI- 10191	Line 3 Current - Compressor 2B	Indicates the measurement of Line 3 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
AI- 10192	Line 1 Current RLA - Compressor 2B	Indicates the measurement of Line 1 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10193	Line 2 Current RLA - Compressor 2B	Indicates the measurement of Line 2 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter



Object Identifier	Object Name	Description	Units	Configuration Dependency
AI- 10194	Line 3 Current RLA - Compressor 2B	Indicates the measurement of Line 3 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter
AI- 10195	Drive Motor Current U Compressor 1A	Indicates the measurement of Line 1 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10196	Drive Motor Current V Compressor 1A	Indicates the measurement of Line 2 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10197	Drive Motor Current W Compressor 1A	Indicates the measurement of Line 3 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10198	Drive Motor Current U RLA Compressor 1A	Indicates the measurement of Line 1 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10199	Drive Motor Current V RLA Compressor 1A	Indicates the measurement of Line 2 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10200	Drive Motor Current W RLA Compressor 1A	Indicates the measurement of Line 3 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10201	Drive Motor Average Voltage Compressor 1A	Indicates the average voltage line to line at AFD for Compressor 1A.	Voltage	TR200 Modbus AFD
AI- 10202	Drive Motor Average Voltage Compressor 2A	Indicates the average voltage line to line at AFD for Compressor 2A.	Voltage	TR200 Modbus AFD
AI- 10203	Drive Motor Current U Compressor 2A	Indicates the measurement of Line 1 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10204	Drive Motor Current V Compressor 2A	Indicates the measurement of Line 2 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10205	Drive Motor Current W Compressor 2A	Indicates the measurement of Line 3 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
AI- 10206	Drive Motor Current U RLA Compressor 2A	Indicates the measurement of Line 1 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10207	Drive Motor Current V RLA Compressor 2A	Indicates the measurement of Line 2 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10208	Drive Motor Current W RLA Compressor 2A	Indicates the measurement of Line 3 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
AI- 10209	Drive Motor Average Current RLA Compressor 1B	Indicates the average voltage line to line at AFD for Compressor 1B.	Percentage	Generic AFD
AI- 10210	Drive Motor Average Current RLA Compressor 2B	Indicates the average voltage line to line at AFD for Compressor 2B.	Percentage	Generic AFD
AI- 10211	Demand Limit Setpoint Status	Indicates the status of demand limit setpoint value actively being used by the chiller.	Percentage	Ice Building
AI- 10212	Chiller Design Capacity	Indicates the design capacity of chiller.	Power, Cooling	Standard
AI- 10213	Chilled Water Setpoint Status	Indicates the status of chilled water setpoint value actively being used by the chiller.	Temperature	Standard
AI- 10214	Evaporator Approach Temperature Circuit 1	Indicates the approach temperature of the evaporator of circuit 1.	Temperature	Standard
AI- 10215	Evaporator Approach Temperature Circuit 2	Indicates the approach temperature of the evaporator of circuit 2.	Temperature	Standard
AI- 10216	Unit Load Command	Indicates the total unit load command in percentage %.	Percentage	Standard
AI- 10217	Chilled Water Pump 1 Run Hours	Indicates the run time of chilled water pump 1.	None	Single Pump
AI- 10218	Chilled Water Pump 2 Run Hours	Indicates the run time of chilled water pump 2.	None	Dual Pump
AI- 10219	Active Chilled Water Pump Service Interval Setpoint	Indicates the Active Chilled Water Pump Service Interval Hours.	None	Single Pump

Symbio™ 800 Integration Points List

BACnet®

Sintesis™ Model RTAF

Date: 11/15/2024

Reference Document: BAS-SVP083*-EN



Object Identifier	Object Name	Description	Units	Configuration Dependency
AV-10100	Chilled Water Setpoint	The value is normally provided by the BAS to send the Chilled Water Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Temperature	Standard
AV-10101	Demand Limit Setpoint	The value is normally provided by the BAS to send the Demand Limit Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Percentage	Standard
AV-10102	Heat Recovery Leaving Water Temperature Setpoint BAS	The value is normally provided by the BAS to send the Heat Recovery Leaving Water Temperature Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Temperature	Total Heat Recovery



Object Identifier	Object Name	Description	Object States	Configuration Dependency
BI-10101	Run Enable	Indicates that chiller is available to run or is currently running.	0 = Run Not Enabled 1 = Run Enabled	Standard
BI-10102	Local Setpoint Control	Indicates the which setpoint is used for control purposes, Remote (BAS) or Local.	0 = Remote control 1 = Local control	Standard
BI-10103	Limit Mode Relay Status	Indicates the status of the chiller limit relay.	0 = Off 1 = On	Standard
BI-10104	Chiller Running State	Indicates whether the chiller is on (currently doing either cooling) or is considered off (not currently doing cooling).	0 = Off 1 = On	Standard
BI-10105	Maximum Capacity	Indicates the status of the maximum capacity relay.	0 = Off 1 = On	Standard
BI-10106	Manual Override Exists	Indicated a manual override is present.	0 = Off 1 = On	Standard
BI-10107	Emergency Stop	Indicates the status of the emergency stop function of the chiller.	0 = Auto 1 = Emergency Stop-Manual Reset Required	Standard
BI-10108	Evaporator Water Flow Status	Indicates the flow of water through evaporator.	0 = No Flow 1 = Flow	Standard
BI-10109	Front Panel Auto Stop	Indicates the auto/stop status of the Front Panel.	0 = Stop 1 = Auto	Standard
BI-10110	Diagnostic Present	Indicates whether diagnostic present.	0 = Normal 1 = In Alarm	Standard
BI-10111	Diagnostic Shutdown Present	Indicates chiller is shut down due to diagnostics.	0 = Normal 1 = In Alarm	Standard
BI-10112	Diagnostic: Manual Reset Required	Indicates when a diagnostic exists that requires manual reset.	0 = Normal 1 = In Alarm	Standard
BI-10113	Diagnostic: Local Manual Reset Required	Indicates when a diagnostic exists that requires manual reset (local only).	0 = Normal 1 = In Alarm	Standard
BI-10114	Diagnostic Present: Information	Indicates whether diagnostic present with Information Category.	0 = Normal 1 = In Alarm	Standard
BI-10115	Diagnostic Present: Advisory	Indicates whether diagnostic present with Warning Category.	0 = Normal 1 = In Alarm	Standard
BI-10116	Diagnostic Present: Critical	Indicates whether diagnostic present with Critical Category.	0 = Normal 1 = In Alarm	Standard
BI-10117	Diagnostic Present: Service Required	Indicates whether diagnostic present with Service Required Category.	0 = Normal 1 = In Alarm	Standard
BI-10118	Compressor 1A Running Status	Indicates running state of Compressor 1A.	0 = Off 1 = Running	Standard
BI-10119	Compressor 1B Running Status	Indicates running state of Compressor 1B.	0 = Off 1 = Running	Compressor 1B
BI-10120	Compressor 2A Running Status	Indicates running state of Compressor 2A.	0 = Off 1 = Running	Standard
BI-10121	Compressor 2B Running Status	Indicates running state of Compressor 2B.	0 = Off 1 = Running	Compressor 2B



Object Identifier	Object Name	Description	Object States	Configuration Dependency
BI-10122	External Auto Stop Status	Indicates the status of the externally-wired auto/stop input.	0 = Stop 1 = Auto	Standard
BI-10123	Free Cooling Active	Indicated the free cooling mode is active.	0 = Normal 1 = Active	Free cooling
BI-10124	Evaporator Water Pump Request	Indicates a request from the chiller to turn on the Evaporator Water Pump.	0 = Off 1 = On	Standard
BI-10125	Heat Recovery Control Active Status	Indicates the active control state of Heat Recovery.	0 = Normal 1 = Active	Total Heat Recovery
BI-10126	Heat Recovery Ckt1 Active Status	Indicates the active state of Heat Recovery circuit 1.	0 = Normal 1 = Active	Total Heat Recovery
BI-10127	Heat Recovery Ckt2 Active Status	Indicates the active state of Heat Recovery circuit 2.	0 = Normal 1 = Active	Total Heat Recovery
BI-10128	Alarm - Latching Unit	Indicates whether latching alarm is present.	0 = Normal 1 = In Alarm	Standard
BI-10129	Alarm - NonLatching Unit	Indicates whether non-latching alarm is present.	0 = Normal 1 = In Alarm	Standard
BI-10130	Alarm - Ckt 1	Indicates whether latching and/or non-latching alarm present on circuit 1.	0 = Normal 1 = In Alarm	Standard
BI-10131	Alarm - Ckt 2	Indicates whether latching and/or non-latching alarm present on circuit 2.	0 = Normal 1 = In Alarm	Standard
BI-10132	Alarm - General Latching Unit	Indicates whether latching alarm is present so that it disable the total capacity of the unit.	0 = Normal 1 = In Alarm	Standard
BI-10133	Alarm - General Non Latching Unit	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the unit.	0 = Normal 1 = In Alarm	Standard
BI-10134	Alarm - General Latching Ckt1	Indicates whether latching alarm is present so that it disable the total capacity of the circuit 1.	0 = Normal 1 = In Alarm	Standard
BI-10135	Alarm - General Latching Ckt2	Indicates whether latching alarm is present so that it disable the total capacity of the circuit 2.	0 = Normal 1 = In Alarm	Standard
BI-10136	Alarm - General Non Latching Ckt1	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the circuit 1.	0 = Normal 1 = In Alarm	Standard
BI-10137	Alarm - General Non Latching Ckt2	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the circuit 2.	0 = Normal 1 = In Alarm	Standard
BI-10138	Noise Reduction Request Active	Indicates whether Noise Reduction active.	0 = Off 1 = On	Standard
BI-10139	Heat Recovery Water Flow Status	Indicates the flow of water through heat recovery.	0 = No 1 = Flow	Heat Recovery
BI-10140	Heat Recovery Water Pump Command	Indicates the status of heat recovery pump command.	0 = Off 1 = On	Heat Recovery
BI-10141	Circuit 1 Running Status	Indicates running state of circuit 1.	0 = Off 1 = Running	Standard
BI-10142	Circuit 2 Running Status	Indicates running state of circuit 2.	0 = Off 1 = Running	Standard
BI-10143	Emergency Stop Input Status	Indicates the status of the emergency stop function of the chiller.	0 = Inactive 1 = Active	Standard



Object Identifier	Object Name	Description	Object States	Configuration Dependency
BV-10100	Chiller Auto Stop Command BAS	Normally used by the BMS to command the chiller to start running if operating conditions are satisfied, or to stop the chiller from running.	0 = Stop 1 = Auto	Standard
BV-10101	Reset Diagnostic	Normally used by the BMS to initiate a request to reset any controller diagnostics.	0 = Normal 1 = Reset	Standard
BV-10102	Noise Reduction Request BAS	Normally used by the BMS to command the chiller to enter a mode of operation where the noise of the unit is reduced.	0 = Normal 1 = Locked Out	Standard
BV-10103	Circuit 1 Lockout BAS	Normally used by the BMS to lockout the Circuit-1 Compressor.	0 = Normal 1 = Locked Out	Standard
BV-10104	Circuit 2 Lockout BAS	Normally used by the BMS to lockout the Circuit-2 Compressor.	0 = Normal 1 = Locked Out	Standard
BV-10105	Compressor 1A Lockout BAS	Normally used by the BMS to lockout the Compressor 1A.	0 = Normal 1 = Locked Out	Standard
BV-10106	Compressor 1B Lockout BAS	Normally used by the BMS to lockout the Compressor 1B.	0 = Normal 1 = Locked Out	Compressor 1B
BV-10107	Compressor 2A Lockout BAS	Normally used by the BMS to lockout the Compressor 2A.	0 = Normal 1 = Locked Out	Standard
BV-10108	Compressor 2B Lockout BAS	Normally used by the BMS to lockout the Compressor 2B.	0 = Normal 1 = Locked Out	Compressor 2B
BV-10109	Free Cooling Auto Stop Command BAS	Normally used the BMS to command the chiller to allow free cooling mode if conditions are satisfied, or to stop the free cooling mode from operating.	0 = Stop 1 = Auto	Free Cooling
BV-10110	Energy Consumption Reset	Normally used by the BMS to reset the energy consumption accumulated total.	0 = Accumulating 1 = Reset	Energy Meter
BV-10111	Heat Recovery Enable BAS	Normally used by the BMS to command the heat recovery to start running if operating conditions are satisfied, or to stop the heat recovery from running.	0 = Off 1 = On	Heat Recovery
BV-10112	Heat Recovery Lockout Circuit 1 BAS	Normally used by the BMS to lockout the heat recovery Circuit 1.	0 = Normal 1 = Locked Out	Heat Recovery
BV-10113	Heat Recovery Lockout Circuit 2 BAS	Normally used by the BMS to lockout the heat recovery Circuit 2.	0 = Normal 1 = Locked Out	Heat Recovery



Object Identifier	Object Name	Description	Object States	Configuration Dependency
MI-10100	Running Mode	Indicates the running state of the chiller.	1 = Chiller Off 2 = Chiller In Start Mode 3 = Chiller In Run Mode 4 = Chiller In Pre- Shutdown Mode 5 = Chiller In Service Mode	Standard
MI-10101	Operating Mode	Indicates the operating mode of the chiller.	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
MI-10102	Front Panel Chiller Mode Command	Indicates the Chiller Mode Command in Front Panel.	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
MI-10103	Refrigerant Type	Indicates the chiller refrigerant type.	1 = R-11 2 = R-12 3 = R-22 4 = R-123 5 = R-134a 6 = R-407C 7 = R-410A 8 = R-113 9 = R-114 10 = R-500 11 = R-502 12 = R-404A 13 = R-513A 14 = R-1233zd(E) 15 = R-514A 16 = R-1234ze(E)	Standard
MI-10104	Cooling Type	Indicates the cooling Type of chiller.	1 = Water Cooled 2 = Air Cooled	Standard



Object Identifier	Object Name	Description	Object States	Configuration Dependency
MI-10105	Model Information [GEN2]	Indicates the model information of chiller.	1 = CVHF 2 = CVGF 3 = CVHS 4 = RTAE 5 = RTAF 6 = RTHA 7 = RTHB 8 = RTHC 9 = RTHD 10 = RTWE 11 = CTVD 12 = CVR II 13 = CVHH 14 = CDHH 15 = VMAX 16 = GVAF 17 = RTWF 18 = RTHF 19 = RTAC 20 = CVHM 21 = RTAG 22 = CGAF 23 = RTXG 24 = GVWF 25 = HDWA 26 = CMAC 27 = IPAK 28 = CXAF 29 = ACSA 30 = RTSF 31 = HSWA 32 = ACRA 33 = RTEG 34 = ACXA 35 = CMAF 36 = ACRB Large 37 = ACRB Small	Standard



Object Identifier	Object Name	Description	Object States	Configuration Dependency
MI-10106	Manufacture Location	Indicates the location that the chiller was manufactured.	1 = Field Applied 2 = La Crosse 3 = Pueblo 4 = Charmes 5 = Rushville 6 = Macon 7 = Waco 8 = Lexington 9 = Forsyth 10 = Clarksville 11 = Ft. Smith 12 = Penang 13 = Colchester 14 = Curitiba 15 = Taicang 16 = Taiwan 17 = Epinal 18 = Golbey	Standard
MI-10107	Chiller Setpoint Source	Indicates the selected setpoint source for control purpose.	1 = BAS 2 = External 3 = Front Panel	Standard

Symbio™ 800 Integration Points List

BACnet®

Sintesis™ Model RTAF

Date: 11/15/2024

Reference Document: BAS-SVP083*-EN



Object Identifier	Object Name	Description	Object States	Configuration Dependency
MV-10100	Chiller Mode Command BAS	Normally used by the BMS to command the chiller Mode.	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard



Object Naming Conventions

The communicated points for the Symbio™ controllers are generally named according to their function. While many of the points are read-only, others include both read and write capability. The established naming convention helps to identify the capabilities of each point. For most points, the suffix identifies the capability according to the following definition. While there are some exceptions, the majority of the points have been defined according to these guidelines.

Suffix	Description
Status	Points with the Status suffix are defined as read-only. The status point reports the value being used by the controller.
Local	Points with the Local suffix are defined as read-only. The local point reports values associated with controller sensors, both wired and wireless. The local value may or may not be actively used by the controller, depending on the presence or absence of a communicated value (BAS). When both a local and communicated value exist, the communicated value is used.
Active	Points with the Active suffix are defined as read-only. Points designated as active are normally the result of the arbitration between a communicated value (BAS) and at least one value local to the equipment, such as a sensor or default setpoint. The active point reports the value being input to the controller.
Setpoint	Points with the Setpoint suffix are defined as either read-only or read/write. For BACnet®, the binary input, analog input and multi-state input points are all read-only. These setpoints report the value currently in use by the controller. The analog value, binary value and multi-state value points are all read/write. These points are provided for use by the building automation system (BAS). When used, these points are written internally to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquish default value/state. Refer to the Appendix for additional information.
Input	Points with the Input suffix are defined as read-only. These points normally reflect the status of a sensor input, either hardwired or communicating wirelessly (Air-Fi®). However, the input point reflects the arbitrated result of the controller sensor input and a communicated value, if present. When both a controller sensor and communicated value exist, the controller will use and report the communicated value.
Arbitrator	Points with the "Arbitrator" suffix are to be used as read-only. The arbitrator prioritizes inputs from communicating points, hardwired points and stored defaults points. The priority array of the arbitration point displays each of the values provided, including the active status, indicating which of the input sources is being used. Refer to the Appendix for additional information.
BAS	Points with the BAS suffix are defined as read/write. These points are provided for use by the building automation system (BAS). When used, these points are written to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquished default value/state. Refer to the Appendix for additional information.
Command	Points with the Command suffix are defined as read/write. These points are written to change the default behavior of the controller. Once written, these point values may be persisted.
Request	Points with the Request suffix are defined as read/write. These points are written to request a change the operating behavior of the controller.

Object Data Points and Diagnostic Data Points

The following tables are sorted as follows:

- Tables are listed by input/output type and sorted by object identifier. These tables provide the user with the unit's type for each object type.
- Tables are sorted by object name and provide a complete list of object names, types, values/ranges, and descriptions.

Note: Not all points are available to the user. The available data points are defined during self-configuration and are dependent on the type of equipment.

Symbio™ 800 Integration Points List
Modbus™
Sintesis™ Model RTAF

Date: 11/15/2024
Reference Document: BAS-SVP083*-EN



Register Type	Register Value	Byte Order	Invalid Values
Analog	Float, 32-bit	High Word/High Byte First	NaN
Binary	Int, 16-bit, unsigned	High Byte First	0xFFFF
Multi-state	Int, 16-bit, unsigned	High Byte First	0xFFFF



Modbus Register	Object Name	Description	Units	Configuration Dependency
30011	Active Cool/Heat Setpoint Temperature	Indicates the value of the active Cool/Heat Setpoint actively being used by the chiller.	Temperature	Standard
30013	External Chilled Water Setpoint	Indicates the External Chilled Water Setpoint value actively being used by the chiller.	Temperature	External Setpoint
30015	Front Panel Chilled Water Setpoint	Indicates the value of Front Panel Chilled Water setpoint. Depending on the Setpoint Source setting and BAS communication status, it may be used to define the currently active Setpoint.	Temperature	Standard
30017	Active Demand Limit Setpoint	Indicates the demand limit setpoint value actively being used by the chiller.	Percentage	Standard
30019	External Demand Limit Setpoint	Indicates the Status of the External Demand Limit Setpoint.	Percentage	External Setpoint
30021	Front Panel Demand Limit Setpoint	Indicates the Local setting for the Unit's Demand Limit setpoint in % of rated current.	Percentage	Standard
30023	Evaporator Entering Water Temperature	Indicates the current temperature of the water entering the evaporator.	Temperature	Standard
30025	Evaporator Leaving Water Temperature	Indicates the current temperature of the water leaving the evaporator.	Temperature	Standard
30027	Outdoor Air Temperature	Indicates the current temperature of the outdoor air.	Temperature	Standard
30029	Number of Circuits	Indicates the number of refrigeration circuits in the chiller.	None	Standard
30031	Unit Source ID	Indicates the last diagnostic of the chiller Separately, individual diagnostics are reported with dedicated points, variables, registers.	None	Standard
30033	Number of Compressors Circuit 1	Indicates the number of compressors on circuit 1 of the chiller.	None	Standard
30035	Number of Compressors Circuit 2	Indicates the number of compressors on circuit 2 of the chiller.	None	Standard
30037	Actual Running Capacity	Indicates the measurement of the power being consumed by the chiller.	Percentage	Standard
30039	Air Flow Percentage Circuit 1	Indicates the approximate air flow percentage of Circuit 1.	Percentage	Standard
30041	Evaporator Refrigerant Pressure Circuit 1	Indicates the current pressure of the refrigerant in the evaporator on circuit 1.	Pressure, Fluidic	Standard
30043	Condenser Refrigerant Pressure Circuit 1	Indicates the current pressure of the refrigerant in the condenser on circuit 1.	Pressure, Fluidic	Standard
30045	Differential Refrigerant Pressure Circuit 1	Indicates the pressure difference between the suction and discharge lines on circuit 1.	Pressure, Fluidic	Standard
30047	Evaporator Saturated Refrigerant Temperature Circuit 1	Indicates the saturated refrigerant temperature of the evaporator on circuit 1.	Temperature	Standard
30049	Condenser Saturated Refrigerant Temperature Circuit 1	Indicates the saturated refrigerant temperature of the condenser on circuit 1.	Temperature	Standard
30051	Sub Cooled Liquid Temperature Circuit 1	Indicates the sub cooled liquid temperature on circuit 1.	Temperature	Standard
30053	Refrigerant Discharge Temperature - Compressor 1A	Indicates the current temperature of the refrigerant being discharged from Compressor 1A.	Temperature	Standard
30055	Oil Pressure - Compressor 1A	Indicates the oil pressure on the Compressor 1A.	Pressure, Fluidic	Standard
30057	Starts - Compressor 1A	Indicates the number of starts of Compressor 1A.	None	Standard
30059	Run Time - Compressor 1A	Indicates the run time of Compressor 1A.	None	Standard
30061	Air Flow Percentage Circuit 2	Indicates the approximate air flow percentage of circuit 2.	Percentage	Standard
30063	Evaporator Refrigerant Pressure Circuit 2	Indicates the current pressure of the refrigerant in the evaporator on circuit 2.	Pressure, Fluidic	Standard
30065	Condenser Refrigerant Pressure Circuit 2	Indicates the current pressure of the refrigerant in the condenser on circuit 2.	Pressure, Fluidic	Standard
30067	Differential Refrigerant Pressure Circuit 2	Indicates the pressure difference between the suction and discharge lines on circuit 2.	Pressure, Fluidic	Standard
30069	Evaporator Saturated Refrigerant Temperature Circuit 2	Indicates the saturated refrigerant temperature of the evaporator on circuit 2.	Temperature	Standard
30071	Condenser Saturated Refrigerant Temperature Circuit 2	Indicates the saturated refrigerant temperature of the condenser on circuit 2.	Temperature	Standard



Modbus Register	Object Name	Description	Units	Configuration Dependency
30073	Sub Cooled Liquid Temperature Circuit 2	Indicates the sub cooled liquid temperature on circuit 2.	Temperature	Standard
30075	Refrigerant Discharge Temperature - Compressor 2A	Indicates the current temperature of the refrigerant being discharged from Compressor 2A.	Temperature	Standard
30077	Oil Pressure - Compressor 2A	Indicates the oil pressure on the Compressor 2A.	Pressure, Fluidic	Standard
30079	Refrigerant Discharge Temperature - Compressor 1B	Indicates the current temperature of the refrigerant being discharged from Compressor 1B.	Temperature	Compressor 1B
30081	Oil Pressure - Compressor 1B	Indicates the oil pressure on the Compressor 1B.	Pressure, Fluidic	Compressor 1B
30083	Starts - Compressor 1B	Indicates the number of starts of Compressor 1B.	None	Compressor 1B
30085	Run Time - Compressor 1B	Indicates the run time of Compressor 1B.	None	Compressor 1B
30087	Starts - Compressor 2A	Indicates the number of starts of Compressor 2A.	None	Standard
30089	Run Time - Compressor 2A	Indicates the run time of Compressor 2A.	None	Standard
30091	Refrigerant Discharge Temperature - Compressor 2B	Indicates the current temperature of the refrigerant being discharged from Compressor 2B.	Temperature	Compressor 2B
30093	Oil Pressure - Compressor 2B	Indicates the oil pressure on the Compressor 2B.	Pressure, Fluidic	Compressor 2B
30095	Starts - Compressor 2B	Indicates the number of starts of Compressor 2B.	None	Compressor 2B
30097	Run Time - Compressor 2B	Indicates the run time of Compressor 2B.	None	Compressor 2B
30099	Free Cooling Capacity Status	Indicates the % capacity of the free cooling being used.	Percentage	Free Cooling
30101	Free Cooling Entering Water Temperature Active	Indicates the entering water temperature of the free cooling circuit.	Temperature	Free Cooling
30103	Free Cooling Entering Glycol Temperature	Indicates the entering glycol water temperature of the free cooling circuit.	Temperature	Free Cooling, Glycol Free
30105	Free Cooling Leaving Glycol Temperature	Indicates the leaving glycol water temperature of the free cooling circuit.	Temperature	Free Cooling, Glycol Free
30107	Free Cooling Glycol Pressure	Indicates the glycol pressure of the free cooling circuit.	Pressure, Fluidic	Free Cooling, Glycol Free
30109	Drive Motor Average Current RLA Compressor 1A	Indicates the average current at AFD for Compressor 1A in terms of % RLA.	Percentage	Generic AFD
30111	Drive Motor Average Current RLA Compressor 2A	Indicates the average current at AFD for Compressor 2A in terms of % RLA.	Percentage	Generic AFD
30113	Heat Recovery Entering Water Temperature	Indicates the heat recovery entering water temperature.	Temperature	Heat Recovery
30115	Heat Recovery Leaving Water Temperature	Indicates the heat recovery leaving water temperature.	Temperature	Heat Recovery
30117	Evaporator Shell Refrigerant Pressure Circuit 1	Indicates the measurement of evaporator shell refrigerant pressure in circuit 1.	Pressure, Fluidic	Evaporator Isolation Valves
30119	Evaporator Shell Refrigerant Pressure Circuit 2	Indicates the measurement of evaporator shell refrigerant pressure in circuit 2.	Pressure, Fluidic	Evaporator Isolation Valves
30121	Phase AB Voltage - Compressor 1A	Indicates the measurement of voltage in Phase AB for Compressor 1A.	Voltage	Line Voltage Sensing
30123	Phase AB Voltage - Compressor 1B	Indicates the measurement of voltage in Phase AB for Compressor 1B.	Voltage	Line Voltage Sensing
30125	Phase AB Voltage - Compressor 2A	Indicates the measurement of voltage in Phase AB for Compressor 2A.	Voltage	Line Voltage Sensing
30127	Phase AB Voltage - Compressor 2B	Indicates the measurement of voltage in Phase AB for Compressor 2B.	Voltage	Line Voltage Sensing
30129	Oil Temperature - Compressor 1A	Indicates the measurement of oil temperature in compressor 1A.	Temperature	Oil Cooler
30131	Oil Temperature - Compressor 1B	Indicates the measurement of oil temperature in compressor 1B.	Temperature	Oil Cooler
30133	Oil Temperature - Compressor 2A	Indicates the measurement of oil temperature in compressor 2A.	Temperature	Oil Cooler
30135	Oil Temperature - Compressor 2B	Indicates the measurement of oil temperature in compressor 2B.	Temperature	Oil Cooler



Modbus Register	Object Name	Description	Units	Configuration Dependency
30137	Oil Supply Temperature Circuit 1	Indicates the measurement of oil supply temperature in circuit 1.	Temperature	GP4 Compressor
30139	Oil Supply Temperature Circuit 2	Indicates the measurement of oil supply temperature in circuit 2.	Temperature	GP4 Compressor
30141	Unit Power Consumption	Indicates the measurement of the power being consumed by the chiller.	Power, Electrical	Energy Meter
30143	Energy Consumption Lifetime	Indicates the total energy consumption of the chiller (for the lifetime of the chiller).	Power, Electrical	Energy Meter
30145	Energy Consumption	Indicates the total energy consumption of the chiller (since last accumulation reset).	Power, Electrical	Energy Meter
30147	Evaporator Differential Water Pressure	Indicates the differential water pressure of the evaporator.	Pressure, Fluidic	Variable Primary Flow
30149	System Chilled Water Differential Water Pressure	Indicates the differential water pressure of the chilled water system.	Pressure, Fluidic	Variable Primary Flow
30151	Evaporator Differential Water Pressure Setpoint Status	Indicates the status of differential water pressure setpoint of the evaporator.	Pressure, Fluidic	Variable Primary Flow
30153	Line 1 Current - Compressor 1A	Indicates the measurement of Line 1 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
30155	Line 2 Current - Compressor 1A	Indicates the measurement of Line 2 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
30157	Line 3 Current - Compressor 1A	Indicates the measurement of Line 3 current for Compressor 1A in terms of Amps.	Current	Wye-Delta Starter
30159	Line 1 Current RLA - Compressor 1A	Indicates the measurement of Line 1 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
30161	Line 2 Current RLA - Compressor 1A	Indicates the measurement of Line 2 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
30163	Line 3 Current RLA - Compressor 1A	Indicates the measurement of Line 3 current for Compressor 1A in terms of % RLA.	Percentage	Wye-Delta Starter
30165	Line 1 Current - Compressor 1B	Indicates the measurement of Line 1 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
30167	Line 2 Current - Compressor 1B	Indicates the measurement of Line 2 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
30169	Line 3 Current - Compressor 1B	Indicates the measurement of Line 3 current for Compressor 1B in terms of Amps.	Current	Wye-Delta Starter
30171	Line 1 Current RLA - Compressor 1B	Indicates the measurement of Line 1 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
30173	Line 2 Current RLA - Compressor 1B	Indicates the measurement of Line 2 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
30175	Line 3 Current RLA - Compressor 1B	Indicates the measurement of Line 3 current for Compressor 1B in terms of % RLA.	Percentage	Wye-Delta Starter
30177	Line 1 Current - Compressor 2A	Indicates the measurement of Line 1 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
30179	Line 2 Current - Compressor 2A	Indicates the measurement of Line 2 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
30181	Line 3 Current - Compressor 2A	Indicates the measurement of Line 3 current for Compressor 2A in terms of Amps.	Current	Wye-Delta Starter
30183	Line 1 Current RLA - Compressor 2A	Indicates the measurement of Line 1 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
30185	Line 2 Current RLA - Compressor 2A	Indicates the measurement of Line 2 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
30187	Line 3 Current RLA - Compressor 2A	Indicates the measurement of Line 3 current for Compressor 2A in terms of % RLA.	Percentage	Wye-Delta Starter
30189	Line 1 Current - Compressor 2B	Indicates the measurement of Line 1 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
30191	Line 2 Current - Compressor 2B	Indicates the measurement of Line 2 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
30193	Line 3 Current - Compressor 2B	Indicates the measurement of Line 3 current for Compressor 2B in terms of Amps.	Current	Wye-Delta Starter
30195	Line 1 Current RLA - Compressor 2B	Indicates the measurement of Line 1 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter
30197	Line 2 Current RLA - Compressor 2B	Indicates the measurement of Line 2 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter
30199	Line 3 Current RLA - Compressor 2B	Indicates the measurement of Line 3 current for Compressor 2B in terms of % RLA.	Percentage	Wye-Delta Starter



Modbus Register	Object Name	Description	Units	Configuration Dependency
30201	Drive Motor Current U Compressor 1A	Indicates the measurement of Line 1 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
30203	Drive Motor Current V Compressor 1A	Indicates the measurement of Line 2 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
30205	Drive Motor Current W Compressor 1A	Indicates the measurement of Line 3 current at AFD for Compressor 1A in terms of Amps.	Current	TR200 Modbus AFD
30207	Drive Motor Current U RLA Compressor 1A	Indicates the measurement of Line 1 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
30209	Drive Motor Current V RLA Compressor 1A	Indicates the measurement of Line 2 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
30211	Drive Motor Current W RLA Compressor 1A	Indicates the measurement of Line 3 current at AFD for Compressor 1A in terms of % RLA.	Percentage	TR200 Modbus AFD
30213	Drive Motor Average Voltage Compressor 1A	Indicates the average voltage line to line at AFD for Compressor 1A.	Voltage	TR200 Modbus AFD
30215	Drive Motor Average Voltage Compressor 2A	Indicates the average voltage line to line at AFD for Compressor 2A.	Voltage	TR200 Modbus AFD
30217	Drive Motor Current U Compressor 2A	Indicates the measurement of Line 1 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
30219	Drive Motor Current V Compressor 2A	Indicates the measurement of Line 2 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
30221	Drive Motor Current W Compressor 2A	Indicates the measurement of Line 3 current at AFD for Compressor 2A in terms of Amps.	Current	TR200 Modbus AFD
30223	Drive Motor Current U RLA Compressor 2A	Indicates the measurement of Line 1 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
30225	Drive Motor Current V RLA Compressor 2A	Indicates the measurement of Line 2 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
30227	Drive Motor Current W RLA Compressor 2A	Indicates the measurement of Line 3 current at AFD for Compressor 2A in terms of % RLA.	Percentage	TR200 Modbus AFD
30229	Drive Motor Average Current RLA Compressor 1B	Indicates the average voltage line to line at AFD for Compressor 1B.	Percentage	Generic AFD
30231	Drive Motor Average Current RLA Compressor 2B	Indicates the average voltage line to line at AFD for Compressor 2B.	Percentage	Generic AFD
30233	Demand Limit Setpoint Status	Indicates the status of demand limit setpoint value actively being used by the chiller.	Percentage	Ice Building
30235	Chiller Design Capacity	Indicates the design capacity of chiller.	Power, Cooling	Standard
30237	Chilled Water Setpoint Status	Indicates the status of chilled water setpoint value actively being used by the chiller.	Temperature	Standard
30239	Evaporator Approach Temperature Circuit 1	Indicates the approach temperature of the evaporator of circuit 1.	Temperature	Standard
30241	Evaporator Approach Temperature Circuit 2	Indicates the approach temperature of the evaporator of circuit 2.	Temperature	Standard
30243	Unit Load Command	Indicates the total unit load command in percentage %.	Percentage	Standard
30245	Chilled Water Pump 1 Run Hours	Indicates the run time of chilled water pump 1.	None	Single Pump
30247	Chilled Water Pump 2 Run Hours	Indicates the run time of chilled water pump 2.	None	Dual Pump
30249	Active Chilled Water Pump Service Interval Setpoint	Indicates the Active Chilled Water Pump Service Interval Hours.	None	Single Pump

Symbio™ 800 Integration Points List

Modbus™

Sintesis™ Model RTAF

Date: 11/15/2024

Reference Document: BAS-SVP083*-EN



Modbus Register	Object Name	Description	Units	Configuration Dependency
40011	Chilled Water Setpoint	The value is normally provided by the BAS to send the Chilled Water Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Temperature	Standard
40013	Demand Limit Setpoint	The value is normally provided by the BAS to send the Demand Limit Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Percentage	Standard
40015	Heat Recovery Leaving Water Temperature Setpoint BAS	The value is normally provided by the BAS to send the Heat Recovery Leaving Water Temperature Setpoint. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Temperature	Total Heat Recovery



Modbus Register	Object Name	Description	Object States	Configuration Dependency
33011	Run Enable	Indicates that chiller is available to run or is currently running.	0 = Run Not Enabled 1 = Run Enabled	Standard
33012	Local Setpoint Control	Indicates the which setpoint is used for control purposes, Remote (BAS) or Local.	0 = Remote Control 1 = Local Control	Standard
33013	Limit Mode Relay Status	Indicates the status of the chiller limit relay.	0 = Off 1 = On	Standard
33014	Chiller Running State	Indicates whether the chiller is on (currently doing either cooling) or is considered off (not currently doing cooling).	0 = Off 1 = On	Standard
33015	Maximum Capacity	Indicates the status of the maximum capacity relay.	0 = Off 1 = On	Standard
33016	Manual Override Exists	Indicates a manual override is present.	0 = Off 1 = On	Standard
33017	Emergency Stop	Indicates the status of the emergency stop function of the chiller.	0 = Auto 1 = Emergency Stop- Manual Reset Required	Standard
33018	Evaporator Water Flow Status	Indicates the flow of water through evaporator.	0 = No Flow 1= Flow	Standard
33019	Front Panel Auto Stop	Indicates the auto/stop status of the Front Panel.	0 = Stop 1 = Auto	Standard
33020	Diagnostic Present	Indicates whether diagnostic present.	0 = Normal 1 = In Alarm	Standard
33021	Diagnostic Shutdown Present	Indicates chiller is shut down due to diagnostics.	0 = Normal 1 = In Alarm	Standard
33022	Diagnostic: Manual Reset Required	Indicates when a diagnostic exists that requires manual reset.	0 = Normal 1 = In Alarm	Standard
33023	Diagnostic: Local Manual Reset Required	Indicates when a diagnostic exists that requires manual reset (local only).	0 = Normal 1 = In Alarm	Standard
33024	Diagnostic Present: Information	Indicates whether diagnostic present with Information Category.	0 = Normal 1 = In Alarm	Standard
33025	Diagnostic Present: Advisory	Indicates whether diagnostic present with Warning Category.	0 = Normal 1 = In Alarm	Standard
33026	Diagnostic Present: Critical	Indicates whether diagnostic present with Critical Category.	0 = Normal 1 = In Alarm	Standard
33027	Diagnostic Present: Service Required	Indicates whether diagnostic present with Service Required Category.	0 = Normal 1 = In Alarm	Standard
33028	Compressor 1A Running Status	Indicates running state of Compressor 1A.	0 = Off 1 = Running	Standard
33029	Compressor 1B Running Status	Indicates running state of Compressor 1B.	0 = Off 1 = Running	Compressor 1B
33030	Compressor 2A Running Status	Indicates running state of Compressor 2A.	0 = Off 1 = Running	Standard
33031	Compressor 2B Running Status	Indicates running state of Compressor 2B.	0 = Off 1 = Running	Compressor 2B
33032	External Auto Stop Status	Indicates the status of the externally-wired auto/ stop input.	0 = Stop 1 = Auto	Standard



Modbus Register	Object Name	Description	Object States	Configuration Dependency
33033	Free Cooling Active	Indicated the free cooling mode is active.	0 = Inactive 1 = Active	Free cooling
33034	Evaporator Water Pump Request	Indicates a request from the chiller to turn on the Evaporator Water Pump.	0 = Off 1 = On	Standard
33035	Heat Recovery Control Active Status	Indicates the active control state of Heat Recovery.	0 = Inactive 1 = Active	Total Heat Recovery
33036	Heat Recovery Ckt1 Active Status	Indicates the active state of Heat Recovery circuit 1.	0 = Inactive 1 = Active	Total Heat Recovery
33037	Heat Recovery Ckt2 Active Status	Indicates the active state of Heat Recovery circuit 2.	0 = Inactive 1 = Active	Total Heat Recovery
33038	Alarm - Latching Unit	Indicates whether latching alarm is present.	0 = Normal 1 = In Alarm	Standard
33039	Alarm - NonLatching Unit	Indicates whether non-latching alarm is present.	0 = Normal 1 = In Alarm	Standard
33040	Alarm - Ckt 1	Indicates whether latching and/or non-latching alarm present on circuit 1.	0 = Normal 1 = In Alarm	Standard
33041	Alarm - Ckt 2	Indicates whether latching and/or non-latching alarm present on circuit 2.	0 = Normal 1 = In Alarm	Standard
33042	Alarm - General Latching Unit	Indicates whether latching alarm is present so that it disable the total capacity of the unit.	0 = Normal 1 = In Alarm	Standard
33043	Alarm - General Non Latching Unit	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the unit.	0 = Normal 1 = In Alarm	Standard
33044	Alarm - General Latching Ckt1	Indicates whether latching alarm is present so that it disable the total capacity of the circuit 1.	0 = Normal 1 = In Alarm	Standard
33045	Alarm - General Latching Ckt2	Indicates whether latching alarm is present so that it disable the total capacity of the circuit 2.	0 = Normal 1 = In Alarm	Standard
33046	Alarm - General Non Latching Ckt1	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the circuit 1.	0 = Normal 1 = In Alarm	Standard
33047	Alarm - General Non Latching Ckt2	Indicates whether at least one non-latching alarm is present so that it disable the total capacity of the circuit 2.	0 = Normal 1 = In Alarm	Standard
33048	Noise Reduction Request Active	Indicates whether Noise Reduction active.	0 = Off 1 = On	Standard
33049	Heat Recovery Water Flow Status	Indicates the flow of water through heat recovery.	0 = No Flow 1 = Flow	Heat Recovery
33050	Heat Recovery Water Pump Command	Indicates the status of heat recovery pump command.	0 = Off 1 = On	Heat Recovery
33051	Circuit 1 Running Status	Indicates running state of Circuit 1.	0 = Off 1 = Running	Standard
33052	Circuit 2 Running Status	Indicates running state of Circuit 2.	0 = Off 1 = Running	Standard
33053	Emergency Stop Input Status	Indicates the status of the emergency stop function of the chiller.	0 = Inactive	Standard



Modbus Register	Object Name	Description	Object States	Configuration Dependency
43011	Chiller Auto Stop Command BAS	Normally used by the BMS to command the chiller to start running if operating conditions are satisfied, or to stop the chiller from running.	0 = Stop 1 = Auto	Standard
43012	Reset Diagnostic	Normally used by the BMS to initiate a request to reset any controller diagnostics.	0 = Normal 1 = Reset	Standard
43013	Noise Reduction Request BAS	Normally used by the BMS to command the chiller to enter a mode of operation where the noise of the unit is reduced.	0 = Normal 1 = Reduce Noise	Standard
43014	Circuit 1 Lockout BAS	Normally used by the BMS to lockout the Circuit-1 Compressor.	0 = Normal 1 = Locked Out	Standard
43015	Circuit 2 Lockout BAS	Normally used by the BMS to lockout the Circuit-2 Compressor.	0 = Normal 1 = Locked Out	Standard
43016	Compressor 1A Lockout BAS	Normally used by the BMS to lockout the Compressor 1A.	0 = Normal 1 = Locked Out	Standard
43017	Compressor 1B Lockout BAS	Normally used by the BMS to lockout the Compressor 1B.	0 = Normal 1 = Locked Out	Compressor 1B
43018	Compressor 2A Lockout BAS	Normally used by the BMS to lockout the Compressor 2A.	0 = Normal 1 = Locked Out	Standard
43019	Compressor 2B Lockout BAS	Normally used by the BMS to lockout the Compressor 2B.	0 = Normal 1 = Locked Out	Compressor 2B
43020	Free Cooling Auto Stop Command BAS	Normally used the BMS to command the chiller to allow free cooling mode if conditions are satisfied, or to stop the free cooling mode from operating.	0 = Stop 1 = Auto	Free Cooling
43021	Energy Consumption Reset	Normally used by the BMS to reset the energy consumption accumulated total.	0 = Accumulating 1 = Reset	Energy Meter
43022	Heat Recovery Enable BAS	Normally used by the BMS to command the heat recovery to start running if operating conditions are satisfied, or to stop the heat recovery from running.	0 = Off 1 = On	Heat Recovery
43023	Heat Recovery Lockout Circuit 1 BAS	Normally used by the BMS to lockout the heat recovery Circuit 1.	0 = Normal 1 = Locked Out	Heat Recovery
43024	Heat Recovery Lockout Circuit 2 BAS	Normally used by the BMS to lockout the heat recovery Circuit 2.	0 = Normal 1 = Locked Out	Heat Recovery



Modbus Register	Object Name	Description	Object States	Configuration Dependency
32011	Running Mode	Indicates the running state of the chiller.	1 = Chiller Off 2 = Chiller In Start Mode 3 = Chiller In Run Mode 4 = Chiller In Pre- Shutdown Mode 5 = Chiller In Service Mode	Standard
32012	Operating Mode	Indicates the operating mode of the chiller.	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
32013	Front Panel Chiller Mode Command	Indicates the Chiller Mode Command in Front Panel.	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
32014	Refrigerant Type	Indicates the chiller refrigerant type.	1 = R-11 2 = R-12 3= R-22 4= R-123 5 = R-134a 6 = R-407C 7 = R-410A) 8 = R-113 9 = R-114 10 = R-500 11 = R-502 12 = R-404A 13 = R-513A 14 = R-1233zd(E) 15 = R-514A 16 = R-1234ze(E)	Standard
32015	Cooling Type	Indicates the cooling Type of chiller.	1 = Water Cooled 2 = Air Cooled	Standard



Modbus Register	Object Name	Description	Object States	Configuration Dependency
32016	Model Information [GEN2]	Indicates the model information of chiller.	1 = CVHF 2 = CVGF 3 = CVHS 4 = RTAE 5 = RTAF 6 = RTHA 7 = RTHB 8 = RTHC 9 = RTHD 10 = RTWE 11 = CTVD 12 = CVR 13 = CVHH 14 = CDHH 15 = VMAX 16 = GVAF 17 = RTWF 18 = RTHF 19 = RTAC 20 = CVHM 21 = RTAG 22 = CGAF 23 = RTXG 24 = GVWF 25 = HDWA 26 = CMAF 27 = IPAK 28 = CXAF 29 = ACSA 30 = RTSF 31 = HSWA 32 = ACRA 33 = RTEG 34 = ACXA 35 = CMAF 36 = ACRB Large 37 = ACRB Small	Standard



Modbus Register	Object Name	Description	Object States	Configuration Dependency
32017	Manufacture Location	Indicates the location that the chiller was manufactured.	1 = Field Applied 2 = La Crosse 3= Pueblo 4= Charnes 5 = Rushville 6 = Macon 7 = Waco 8 = Lexington 9 = Forsyth 10 = Clarksville 11 = Ft. Smith 12 = Penang 13 = Colchester 14 = Curitiba 15 = Taicang 16 = Taiwan 17 = Epinal 18 = Golbey	Standard
32018	Chiller Setpoint Source	Indicates the selected setpoint source for control purpose.	1 = BAS 2 = External 3 = Front Panel	Standard

Symbio™ 800 Integration Points List

Modbus™

Sintesis™ Model RTAF

Date: 11/15/2024

Reference Document: BAS-SVP083*-EN



Modbus Register	Object Name	Description	Object States	Configuration Dependency
42011	Chiller Mode Command BAS	Normally used by the BMS to command the chiller Mode.	1 = Cool 2 = Heat 3= Ice Making 4= Free Cooling	Standard

Symbio™ 800 Integration Points List
BACnet®/Modbus™
Sintesis™ Model RTAF

Date: 11/15/2024
Reference Document: BAS-SVP083*-EN



Diagnostics Code



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
13C79	81017	Comm Loss: External Heat Recovery Ckt Lockout
61EC9	401097	AFD Bump Complete - Compressor 1A
645D9	411097	AFD Bump Complete - Compressor 2A
61ECA	401098	AFD Bump Current High - Circuit 1
645DA	411098	AFD Bump Current High - Circuit 2
61E6B	401003	AFD Comm Loss - Compressor 1A
62253	402003	AFD Comm Loss - Compressor 1B
6457B	411003	AFD Comm Loss - Compressor 2A
64963	412003	AFD Comm Loss - Compressor 2B
61EC1	401089	AFD Current Overload - Compressor 1A
645D1	411089	AFD Current Overload - Compressor 2A
61ECE	401102	AFD Failure to Arm or Start - Compressor 1A
622B6	402102	AFD Failure to Arm or Start - Compressor 1B
645DE	411102	AFD Failure to Arm or Start - Compressor 2A
649C6	412102	AFD Failure to Arm or Start - Compressor 2B
622A8	402088	AFD Fault - Compressor 1B
61EC0	401088	AFD Fault - Compressor 1A
649B8	412088	AFD Fault - Compressor 2B
645D0	411088	AFD Fault - Compressor 2A
61ED3	401107	AFD Fault Mains - Compressor 1A
622BB	402107	AFD Fault Mains - Compressor 1B
645E3	411107	AFD Fault Mains - Compressor 2A
649CB	412107	AFD Fault Mains - Compressor 2B
61ECD	401101	AFD Harmonic Filter Over Temperature - Compressor 1A
645DD	411101	AFD Harmonic Filter Over Temperature - Compressor 2A
61EC7	401095	AFD High Pressure Cutout - Compressor 1A
645D7	411095	AFD High Pressure Cutout - Compressor 2A
61E6F	401007	AFD Interrupt Failure - Compressor 1A
62257	402007	AFD Interrupt Failure - Compressor 1B
6457F	411007	AFD Interrupt Failure - Compressor 2A
64967	412007	AFD Interrupt Failure - Compressor 2B
622A9	402089	AFD Motor Current Overload - Compressor 1B
649B9	412089	AFD Motor Current Overload - Compressor 2B



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
61EC5	401093	AFD Motor Fault - Compressor 1A
645D5	411093	AFD Motor Fault - Compressor 2A
61ED2	401106	AFD Motor Speed Too High - Compressor 1A
645E2	411106	AFD Motor Speed Too High - Compressor 2A
61ED1	401105	AFD Motor Speed Too Low - Compressor 1A
645E1	411105	AFD Motor Speed Too Low - Compressor 2A
61ECB	401099	AFD Pump Out Speed Low - Compressor 1A
645DB	411099	AFD Pump Out Speed Low - Compressor 2A
61ECF	401103	AFD Unexpected Shutdown - Compressor 1A
645DF	411103	AFD Unexpected Shutdown - Compressor 2A
61ECC	401100	AFD Unhandled Fault - Compressor 1A
645DC	411100	AFD Unhandled Fault - Compressor 2A
3112B	201003	BAS Communication Lost
3112A	201002	BAS Failed to Establish Communication
3EB	1003	Check Clock
50CFB	331003	Chiller Service Recommended
61EC4	401092	Comm Loss: AFD Fault Input - Compressor 1A
622AC	402092	Comm Loss: AFD Fault Input - Compressor 1B
645D4	411092	Comm Loss: AFD Fault Input - Compressor 2A
649BC	412092	Comm Loss: AFD Fault Input - Compressor 2B
61EBB	401083	Comm Loss: AFD Run Command - Compressor 1A
645CB	411083	Comm Loss: AFD Run Command - Compressor 2A
13C77	81015	Comm Loss: Auxiliary Setpoint Command
13C74	81012	Comm Loss: Chiller % Capacity Output
38668	231016	Comm Loss: Chiller Bypass Valve Output
58623	362019	Comm Loss: Compressor Oil Temperature Sensor - Compressor 1B
5AD33	372019	Comm Loss: Compressor Oil Temperature Sensor - Compressor 2B
5823B	361019	Comm Loss: Compressor Oil Temperature Sensor - Compressor 1A
5A94B	371019	Comm Loss: Compressor Oil Temperature Sensor - Compressor 2A
A045	41029	Comm Loss: Cond Rfgt Tank Valve - Circuit 1
A42D	42029	Comm Loss: Cond Rfgt Tank Valve - Circuit 2
3D864	252004	Comm Loss: Condenser Fan Enable - Circuit 2
3D47C	251004	Comm Loss: Condenser Fan Enable - Circuit 1



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
3D481	251009	Comm Loss: Condenser Fan Enable Shared Circuit 1 and 2
A029	41001	Comm Loss: Condenser Rfgt Pressure - Circuit 1
A411	42001	Comm Loss: Condenser Rfgt Pressure - Circuit 2
58616	362006	Comm Loss: Cprsr Discharge Rfgt Temp - Compressor 1B
5AD26	372006	Comm Loss: Cprsr Discharge Rfgt Temp - Compressor 2B
5822E	361006	Comm Loss: Cprsr Discharge Rfgt Temp - Compressor 1A
5A93E	371006	Comm Loss: Cprsr Discharge Rfgt Temp - Compressor 2A
53804	342020	Comm Loss: Economizer Disch Press - Compressor 1B
55F14	352020	Comm Loss: Economizer Disch Press - Compressor 2B
5341C	341020	Comm Loss: Economizer Disch Press - Compressor 1A
55B2C	351020	Comm Loss: Economizer Disch Press - Compressor 2A
53802	342018	Comm Loss: Economizer Disch Temp - Compressor 2A
55F12	352018	Comm Loss: Economizer Disch Temp - Compressor 2B
5341A	341018	Comm Loss: Economizer Disch Temp - Compressor 1A
55B2A	351018	Comm Loss: Economizer Disch Temp - Compressor 2A
53801	342017	Comm Loss: Economizer Valve - Compressor 1B
55F11	352017	Comm Loss: Economizer Valve - Compressor 2B
53419	341017	Comm Loss: Economizer Valve - Compressor 1A
55B29	351017	Comm Loss: Economizer Valve - Compressor 2A
470B9	291001	Comm Loss: Electronic Expansion Valve - Circuit 1
474A1	292001	Comm Loss: Electronic Expansion Valve - Circuit 2
13C6A	81002	Comm Loss: Emergency Stop
61EBE	401086	Comm Loss: Energy Meter Pulse Input
38661	231009	Comm Loss: Evap Entering Water Pressure
38659	231001	Comm Loss: Evap Entering Water Temp
38663	231011	Comm Loss: Evap Leaving Water Pressure
3865B	231003	Comm Loss: Evap Leaving Water Temp
A418	42008	Comm Loss: Evap Shell Rfgt Pressure - Circuit 2
A030	41008	Comm Loss: Evap Shell Rfgt Pressure - Circuit 1
38667	231015	Comm Loss: Evap Water Pump Inverter Speed
A42A	42026	Comm Loss: Evaporator Isolation Valve Close Switch - Circuit 2
A042	41026	Comm Loss: Evaporator Isolation Valve Close Switch - Circuit 1
A42B	42027	Comm Loss: Evaporator Isolation Valve Open Switch - Circuit 2



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
A043	41027	Comm Loss: Evaporator Isolation Valve Open Switch - Circuit 1
A429	42025	Comm Loss: Evaporator Isolation Valve Relay - Circuit 2
A041	41025	Comm Loss: Evaporator Isolation Valve Relay - Circuit 1
6BAB1	441009	Comm Loss: Evaporator Pump 1 Fault Input
6BAB2	441010	Comm Loss: Evaporator Pump 2 Fault Input
A423	42019	Comm Loss: Evaporator Refrigerant Pool Temperature - Circuit 2
A03B	41019	Comm Loss: Evaporator Refrigerant Pool Temperature - Circuit 1
EE4A	61002	Comm Loss: Evaporator Water Flow Switch
EE49	61001	Comm Loss: Evaporator Water Pump Relay
13C6E	81006	Comm Loss: Ext Chilled/Hot Wtr Setpoint
13C71	81009	Comm Loss: Ext Demand Limit Setpoint
13C76	81014	Comm Loss: Ext Noise Reduction Request
13C69	81001	Comm Loss: External Auto/Stop
A41D	42013	Comm Loss: External Ckt Lockout - Circuit 2
A035	41013	Comm Loss: External Ckt Lockout - Circuit 1
756EE	481006	Comm Loss: External Heat Recovery Command
756EF	481007	Comm Loss: External Heat Recovery Setpoint
29BF9	171001	Comm Loss: External Ice Building Command
3D482	251010	Comm Loss: Fan Board 1 Relay 1
3D86A	252010	Comm Loss: Fan Board 1 Relay 1
3D483	251011	Comm Loss: Fan Board 1 Relay 2
3D86B	252011	Comm Loss: Fan Board 1 Relay 2
3D484	251012	Comm Loss: Fan Board 1 Relay 3
3D86C	252012	Comm Loss: Fan Board 1 Relay 3
3D485	251013	Comm Loss: Fan Board 1 Relay 4
3D86D	252013	Comm Loss: Fan Board 1 Relay 4
3D486	251014	Comm Loss: Fan Board 2 Relay 1
3D86E	252014	Comm Loss: Fan Board 2 Relay 1
3D487	251015	Comm Loss: Fan Board 2 Relay 2
3D86F	252015	Comm Loss: Fan Board 2 Relay 2
3D488	251016	Comm Loss: Fan Board 2 Relay 3
3D870	252016	Comm Loss: Fan Board 2 Relay 3
3D489	251017	Comm Loss: Fan Board 2 Relay 4



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
3D871	252017	Comm Loss: Fan Board 2 Relay 4
3D479	251001	Comm Loss: Fan Inverter Fault - Circuit 1
3D861	252001	Comm Loss: Fan Inverter Fault - Circuit 2
3D862	252002	Comm Loss: Fan Inverter Speed Command - Circuit 1
3D47A	251002	Comm Loss: Fan Inverter Speed Command - Circuit 2
3D480	251008	Comm Loss: Fan Inverter Speed Command Shared Ckt 1 and 2
77DFD	491005	Comm Loss: FC Entering Glycol Temp
77DF9	491001	Comm Loss: FC Entering Water Temp
77DFF	491007	Comm Loss: FC Leaving Glycol Temp
77DFC	491004	Comm Loss: Free Cooling Bypass Valve
77E05	491013	Comm Loss: Free Cooling Glycol Flow Switch
77E07	491015	Comm Loss: Free Cooling Glycol Pressure
77E0A	491018	Comm Loss: Free Cooling Glycol Pump Fault
77E01	491009	Comm Loss: Free Cooling Pump
77DFB	491003	Comm Loss: Free Cooling Valve
756E9	481001	Comm Loss: Heat Recovery Entering Water Temperature
756EB	481003	Comm Loss: Heat Recovery Leaving Water Temperature
756F3	481011	Comm Loss: Heat Recovery Mode Valve Command Ckt1
756F4	481012	Comm Loss: Heat Recovery Mode Valve Command Ckt2
756F1	481009	Comm Loss: Heat Recovery Water Flow Cmd
756ED	481005	Comm Loss: Heat Recovery Water Flow Switch
756F2	481010	Comm Loss: Heat Recovery Water Pump Relay
22AB4	142004	Comm Loss: High Pressure Cutout Switch - Circuit 2
226CC	141004	Comm Loss: High Pressure Cutout Switch - Circuit 1
58625	362021	Comm Loss: High Pressure Switch - Compressor 1B
5AD35	372021	Comm Loss: High Pressure Switch - Compressor 2B
5823D	361021	Comm Loss: High Pressure Switch - Compressor 1A
5A94D	371021	Comm Loss: High Pressure Switch - Compressor 2A
29BFA	171002	Comm Loss: Ice Building Status Relay
31129	201001	Comm Loss: Local BAS Interface
5213	21011	Comm Loss: Mains Voltage Detection
61EC2	401090	Comm Loss: Motor RLA Input - Compressor 1A
622AA	402090	Comm Loss: Motor RLA Input - Compressor 1B



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
645D2	411090	Comm Loss: Motor RLA Input - Compressor 2A
649BA	412090	Comm Loss: Motor RLA Input - Compressor 2B
5D04A	381002	Comm Loss: Motor Winding Thermostat - Compressor 1A
5F75A	391002	Comm Loss: Motor Winding Thermostat - Compressor 2A
EE4B	61003	Comm Loss: Off-cycle Freeze Protection Relay
A41C	42012	Comm Loss: Oil Loss Level Sensor Input - Circuit 2
A034	41012	Comm Loss: Oil Loss Level Sensor Input - Circuit 1
58618	362008	Comm Loss: Oil Pressure - Compressor 1B
5AD28	372008	Comm Loss: Oil Pressure - Compressor 2B
58230	361008	Comm Loss: Oil Pressure - Compressor 1A
5A940	371008	Comm Loss: Oil Pressure - Compressor 2A
A046	41030	Comm Loss: Oil Return Purge Valve - Circuit 1
A42E	42030	Comm Loss: Oil Return Purge Valve - Circuit 2
58624	362020	Comm Loss: Oil Return Solenoid Valve - Compressor 1B
5AD34	372020	Comm Loss: Oil Return Solenoid Valve - Compressor 2B
5823C	361020	Comm Loss: Oil Return Solenoid Valve - Compressor 1A
5A94C	371020	Comm Loss: Oil Return Solenoid Valve - Compressor 2A
A430	42032	Comm Loss: Oil Supply Temperature - Circuit 2
A048	41032	Comm Loss: Oil Supply Temperature - Circuit 1
5209	21001	Comm Loss: Outdoor Air Temperature
13C6F	81007	Comm Loss: Programmable Relay Board 1
13C78	81016	Comm Loss: Programmable Relay Board 2
537F5	342005	Comm Loss: Slide Valve Load - Compressor 1B
55F05	352005	Comm Loss: Slide Valve Load - Compressor 2B
5340D	341005	Comm Loss: Slide Valve Load - Compressor 1A
55B1D	351005	Comm Loss: Slide Valve Load - Compressor 2A
537F6	342006	Comm Loss: Slide Valve Unload - Compressor 1B
55F06	352006	Comm Loss: Slide Valve Unload - Compressor 2B
5340E	341006	Comm Loss: Slide Valve Unload - Compressor 1A
55B1E	351006	Comm Loss: Slide Valve Unload - Compressor 2A
61EBF	401087	Comm Loss: Speed Command - Compressor 1A
622A7	402087	Comm Loss: Speed Command - Compressor 1B
649B7	412087	Comm Loss: Speed Command - Compressor 2B



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
645CF	411087	Comm Loss: Speed Command - Compressor 2A
61E6A	401002	Comm Loss: Starter - Compressor 1A
62252	402002	Comm Loss: Starter - Compressor 1B
6457A	411002	Comm Loss: Starter - Compressor 2A
64962	412002	Comm Loss: Starter - Compressor 2B
537F4	342004	Comm Loss: Step Load - Compressor 1B
55F04	352004	Comm Loss: Step Load - Compressor 2B
5340C	341004	Comm Loss: Step Load - Compressor 1A
55B1C	351004	Comm Loss: Step Load - Compressor 2A
A417	42007	Comm Loss: Subcooled Liquid Pressure - Circuit 2
A02F	41007	Comm Loss: Subcooled Liquid Pressure - Circuit 1
A413	42003	Comm Loss: Subcooled Liquid Temp - Circuit 2
A02B	41003	Comm Loss: Subcooled Liquid Temp - Circuit 1
537FF	342015	Comm Loss: Suction Pressure Transducer - Compressor 1B
55F0F	352015	Comm Loss: Suction Pressure Transducer - Compressor 2B
53417	341015	Comm Loss: Suction Pressure Transducer - Compressor 1A
55B27	351015	Comm Loss: Suction Pressure Transducer - Compressor 2A
55B2E	351022	Comm Loss: Variable Vi Valve - Compressor 2A
5341E	341022	Comm Loss: Variable Vi Valve - Compressor 1A
38665	231013	Comm Loss: Water System Diff Pressure
5D0EB	381163	Comm Loss: Winding Temp 1 - Compressor 1A
5F7FB	391163	Comm Loss: Winding Temp 1 - Compressor 2A
5D0EC	381164	Comm Loss: Winding Temp 2 - Compressor 1A
5F7FC	391164	Comm Loss: Winding Temp 2 - Compressor 2A
61E7E	401022	Compressor Did Not Accel Transition - Compressor 1A
62266	402022	Compressor Did Not Accel Transition - Compressor 1B
64976	412022	Compressor Did Not Accel Transition - Compressor 2B
6458E	411022	Compressor Did Not Accel: Transition - Compressor 2A
62265	402021	Compressor Did Not Accelerate: Shutdown - Compressor 1B
61E7D	401021	Compressor Did Not Accelerate: Shutdown - Compressor 1A
6458D	411021	Compressor Did Not Accelerate: Shutdown - Compressor 2A
64975	412021	Compressor Did Not Accelerate: Shutdown - Compressor 2B
58617	362007	Compressor Discharge Rfght Temperature Sensor - Compressor 1B



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
5AD27	372007	Compressor Discharge Rfgt Temperature Sensor - Compressor 2B
5822F	361007	Compressor Discharge Rfgt Temperature Sensor - Compressor 1A
5A93F	371007	Compressor Discharge Rfgt Temperature Sensor - Compressor 2A
58622	362018	Compressor Oil Temperature Sensor - Compressor 1B
5AD32	372018	Compressor Oil Temperature Sensor - Compressor 2B
5823A	361018	Compressor Oil Temperature Sensor - Compressor 1A
5A94A	371018	Compressor Oil Temperature Sensor - Compressor 2A
5862A	362026	Compressor Speed Too Low - Discharge Temperature, Compressor 1B
5AD3A	372026	Compressor Speed Too Low - Discharge Temperature, Compressor 2B
5A952	371026	Compressor Speed Too Low - Discharge Temperature, Compressor 2A
58242	361026	Compressor Speed Too Low - Discharge Temperature, Compressor 1A
5862B	362027	Compressor Speed Too Low - Oil Viscosity, Compressor 1B
5AD3B	372027	Compressor Speed Too Low - Oil Viscosity, Compressor 2B
5A953	371027	Compressor Speed Too Low - Oil Viscosity, Compressor 2A
58243	361027	Compressor Speed Too Low - Oil Viscosity, Compressor 1A
A415	42005	Condenser Rfgt Pressure Transducer - Circuit 2
A02D	41005	Condenser Rfgt Pressure Transducer - Circuit 1
53805	342021	Economizer Disch Press Sensor - Compressor 1B
55F15	352021	Economizer Disch Press Sensor - Compressor 2B
5341D	341021	Economizer Disch Press Sensor - Compressor 1A
55B2D	351021	Economizer Disch Press Sensor - Compressor 2A
53803	342019	Economizer Disch Temp Sensor - Compressor 1B
55F13	352019	Economizer Disch Temp Sensor - Compressor 2B
5341B	341019	Economizer Disch Temp Sensor - Compressor 1A
55B2B	351019	Economizer Disch Temp Sensor - Compressor 2A
13C6B	81003	Emergency Stop diag
6BAAF	441007	Evap Pump 1 Fault
6BAA9	441001	Evap Pump 1 Output Comm Loss
6BAC2	441026	Evap Pump 1 Starts Run time Written
6BAB0	441008	Evap Pump 2 Fault
6BAAA	441002	Evap Pump 2 Output Comm Loss
6BAC3	441027	Evap Pump 2 Starts Run time Written
6BAC1	441025	Evap Pump Inverter 1 Fault Input Comm Loss



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
6BAC0	441024	Evap Pump Inverter 1 Frequency Feedback Comm Loss
6BABF	441023	Evap Pump Inverter 1 Run Command Comm Loss
50CFC	331004	Evap Water Pump 1 Svc Recommended
50CFD	331005	Evap Water Pump 2 Svc Recommended
18E76	102006	Evaporator Approach Error - Circuit 2
18A8E	101006	Evaporator Approach Error - Circuit 1
38662	231010	Evaporator Entering Water Pressure
3865A	231002	Evaporator Entering Water Temp Sensor
A427	42023	Evaporator Isolation Valve Closed Switch Failure - Circuit 2
A03F	41023	Evaporator Isolation Valve Closed Switch Failure - Circuit 1
A425	42021	Evaporator Isolation Valve Failed To Close - Circuit 2
A03D	41021	Evaporator Isolation Valve Failed To Close - Circuit 1
A424	42020	Evaporator Isolation Valve Failed To Open - Circuit 2
A03C	41020	Evaporator Isolation Valve Failed To Open - Circuit 1
A428	42024	Evaporator Isolation Valve Illegal Switch State - Circuit 2
A040	41024	Evaporator Isolation Valve Illegal Switch State - Circuit 1
A426	42022	Evaporator Isolation Valve Open Switch Failure - Circuit 2
A03E	41022	Evaporator Isolation Valve Open Switch Failure - Circuit 1
38664	231012	Evaporator Leaving Water Pressure
3865C	231004	Evaporator Leaving Water Temp Sensor
A422	42018	Evaporator Refrigerant Pool Temperature Sensor - Circuit 2
A03A	41018	Evaporator Refrigerant Pool Temperature Sensor - Circuit 1
A42C	42028	Evaporator Refrigerant Pool Temperature Sensor Error - Circuit 2
A044	41028	Evaporator Refrigerant Pool Temperature Sensor Error - Circuit 1
A419	42009	Evaporator Shell Rfgt Pressure Sensor - Circuit 2
A031	41009	Evaporator Shell Rfgt Pressure Sensor - Circuit 1
38660	231008	Evaporator Water Flow (Entering Water Temp)
1B19C	111004	Evaporator Water Flow Lost
1B19B	111003	Evaporator Water Flow Overdue
22AB5	142005	Excessive Condenser Pressure - Circuit 2
226CD	141005	Excessive Condenser Pressure - Circuit 1
13C6D	81005	External Chilled/Hot Water Setpoint
13C70	81008	External Demand Limit Setpoint Diag



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
756F0	481008	External Heat Recovery Setpoint
6E1B9	451001	EXV Pressure Equalization Failed
6E5A1	452001	EXV Pressure Equalization Failed
3D863	252003	Fan Inverter Fault
3D47B	251003	Fan Inverter Fault
77DFA	491002	FC Entering Water Temp Out of Range
6BAAB	441003	Flow Loss Evap Pump 1
6BAAC	441004	Flow Loss Evap Pump 2
6BAAD	441005	Flow Overdue Evap Pump 1
6BAAE	441006	Flow Overdue Evap Pump 2
77DFE	491006	Free Cooling Entering Glycol Temperature Diag
77E0C	491020	Free Cooling Glycol Flow Lost
77E04	491012	Free Cooling Glycol Flow Overdue
77E08	491016	Free Cooling Glycol Pressure Diagnostic
77E03	491011	Free Cooling Glycol Temperature Equalization Overdue
77E00	491008	Free Cooling Leaving Glycol Temperature Diag
77E0B	491019	Free Cooling Pump Glycol Fault
756EA	481002	Heat Recovery Entering Water Temperature Sensor
756EC	481004	Heat Recovery Leaving Water Temperature Sensor
756F5	481013	Heat Recovery Water Flow Lost
756F6	481014	Heat Recovery Water Flow Overdue
58621	362017	High Cprsr Rfgt Discharge Temperature - Compressor 1B
5AD31	372017	High Cprsr Rfgt Discharge Temperature - Compressor 2B
58239	361017	High Cprsr Rfgt Discharge Temperature - Compressor 1A
5A949	371017	High Cprsr Rfgt Discharge Temperature - Compressor 2A
58627	362023	High Differential Rfgt Pressure - Compressor 1B
5AD37	372023	High Differential Rfgt Pressure - Compressor 2B
5823F	361023	High Differential Rfgt Pressure - Compressor 1A
5A94F	371023	High Differential Rfgt Pressure - Compressor 2A
18E77	102007	High Evap Shell Rfgt Pressure - Circuit 2
18A8F	101007	High Evap Shell Rfgt Pressure - Circuit 1
1B199	111001	High Evaporator Pressure
1B19A	111002	High Evaporator Water Temperature



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
5D04B	381003	High Motor Winding Temp - Compressor 1A
5F75B	391003	High Motor Winding Temp - Compressor 2A
5D0E8	381160	High Motor Winding Temp 1 - Compressor 1A
5F7F8	391160	High Motor Winding Temp 1 - Compressor 2A
58615	362005	High Oil Temperature - Compressor 1B
5AD25	372005	High Oil Temperature - Compressor 2B
5822D	361005	High Oil Temperature - Compressor 1A
5A93D	371005	High Oil Temperature - Compressor 2A
58626	362022	High Pressure Cutout - Compressor 1B
5AD36	372022	High Pressure Cutout - Compressor 2B
5823E	361022	High Pressure Cutout - Compressor 1A
5A94E	371022	High Pressure Cutout - Compressor 2A
58628	362024	High Refrigerant Pressure Ratio - Compressor 1B
5AD38	372024	High Refrigerant Pressure Ratio - Compressor 2B
58240	361024	High Refrigerant Pressure Ratio - Compressor 1A
5A950	371024	High Refrigerant Pressure Ratio - Compressor 2A
3112C	201004	LCI-C Software Mismatch: Use BAS Tool
18E79	102009	Loss of Oil at Compressor Running - Compressor 2B
18A91	101009	Loss of Oil at Compressor Running - Compressor 2A
18E78	102008	Loss of Oil at Compressor Stopped - Compressor 2B
18A90	101008	Loss of Oil at Compressor Stopped - Compressor 2A
5822A	361002	Low Differential Refrigerant Pressure - Compressor 1A
5A93A	371002	Low Differential Refrigerant Pressure - Compressor 2A
58612	362002	Low Differential Rfgt Pressure - Compressor 1B
5AD22	372002	Low Differential Rfgt Pressure - Compressor 2B
5861B	362011	Low Discharge Superheat - Compressor 1B
5AD2B	372011	Low Discharge Superheat - Compressor 2B
58233	361011	Low Discharge Superheat - Compressor 1A
5A943	371011	Low Discharge Superheat - Compressor 2A
3865E	231006	Low Evap Water Temp: Unit Off
3865D	231005	Low Evap Water Temp: Unit On
18E75	102005	Low Evaporator Temp: Unit Off - Circuit 2
18A8D	101005	Low Evaporator Temp: Unit Off - Circuit 1



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
77E09	491017	Low Glycol Pressure Free Cooling
77E02	491010	Low Glycol Temperature
58614	362004	Low Oil Flow - Compressor 1B
5AD24	372004	Low Oil Flow - Compressor 2B
5822C	361004	Low Oil Flow - Compressor 1A
5A93C	371004	Low Oil Flow - Compressor 2A
18E71	102001	Low Refrigerant Temperature - Circuit 2
18A89	101001	Low Refrigerant Temperature - Circuit 1
18E72	102002	Low Suction Refrigerant Pressure - Circuit 2
18A8A	101002	Low Suction Refrigerant Pressure - Circuit 1
5212	21010	Main Power Loss
50CFE	331006	Mfr Maintenance Recommended Cprsr1A
50CFF	331007	Mfr Maintenance Recommended Cprsr1B
510E6	332006	Mfr Maintenance Recommended Cprsr2A
510E7	332007	Mfr Maintenance Recommended Cprsr2B
61E7B	401019	Momentary Power Loss - Compressor 1A
6458B	411019	Momentary Power Loss - Compressor 2A
61EC3	401091	Motor 1A RLA Input
622AB	402091	Motor 1B RLA Input
645D3	411091	Motor 2A RLA Input
649BB	412091	Motor 2B RLA Input
61E7C	401020	Motor Current Overload - Compressor 1A
62264	402020	Motor Current Overload - Compressor 1B
6458C	411020	Motor Current Overload - Compressor 2A
64974	412020	Motor Current Overload - Compressor 2B
3E9	1001	MP: Invalid Configuration
3ED	1005	MP: Non-Volatile Block Test Error
3EE	1006	MP: Reset Has Occurred
58611	362001	No Differential Refrigerant Pressure - Compressor 1B
5AD21	372001	No Differential Refrigerant Pressure - Compressor 2B
58229	361001	No Differential Refrigerant Pressure - Compressor 1A
5A939	371001	No Differential Refrigerant Pressure - Compressor 2A
510E1	332001	Oil Analysis Recommended



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
50CF9	331001	Oil Analysis Recommended
510E2	332002	Oil Filter Change Recommended
50CFA	331002	Oil Filter Change Recommended
58613	362003	Oil Pressure System Fault - Compressor 1B
5AD23	372003	Oil Pressure System Fault - Compressor 2B
5822B	361003	Oil Pressure System Fault - Compressor 1A
5A93B	371003	Oil Pressure System Fault - Compressor 2A
58619	362009	Oil Pressure Transducer - Compressor 1B
5AD29	372009	Oil Pressure Transducer - Compressor 2B
58231	361009	Oil Pressure Transducer - Compressor 1A
5A941	371009	Oil Pressure Transducer - Compressor 2A
A42F	42031	Oil Supply Temperature Sensor - Circuit 2
A047	41031	Oil Supply Temperature Sensor - Circuit 1
520A	21002	Outdoor Air Temp Sensor
61E84	401028	Over Voltage
61E77	401015	Phase Loss - Compressor 1A
6225F	402015	Phase Loss - Compressor 1B
64587	411015	Phase Loss - Compressor 2A
6496F	412015	Phase Loss - Compressor 2B
61E78	401016	Phase Reversal - Compressor 1A
62260	402016	Phase Reversal - Compressor 1B
64588	411016	Phase Reversal - Compressor 2A
64970	412016	Phase Reversal - Compressor 2B
61E7A	401018	Power Loss - Compressor 1A
62262	402018	Power Loss - Compressor 1B
6458A	411018	Power Loss - Compressor 2A
64972	412018	Power Loss - Compressor 2B
A414	42004	Pumpdown Terminated By Time - Circuit 2
A02C	41004	Pumpdown Terminated By Time - Circuit 1
5D049	381001	Restart Inhibit Invoked Compressor 1A
5D431	382001	Restart Inhibit Invoked Compressor 1B
5F759	391001	Restart Inhibit Invoked Compressor 2A
5FB41	392001	Restart Inhibit Invoked Compressor 2B



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
61E79	401017	Severe Current Imbalance - Compressor 1A
62261	402017	Severe Current Imbalance - Compressor 1B
64589	411017	Severe Current Imbalance - Compressor 2A
64971	412017	Severe Current Imbalance - Compressor 2B
520B	21003	Software Error 1001: Call Trane Service
520C	21004	Software Error 1002: Call Trane Service
520D	21005	Software Error 1003: Call Trane Service
61E72	401010	Starter Comm Loss: Main Processor - Compressor 1A
6225A	402010	Starter Comm Loss: Main Processor - Compressor 1B
64582	411010	Starter Comm Loss: Main Processor - Compressor 2A
6496A	412010	Starter Comm Loss: Main Processor - Compressor 2B
61E88	401032	Starter Contactor Interrupt Failure - Compressor 1A
62270	402032	Starter Contactor Interrupt Failure - Compressor 1B
64598	411032	Starter Contactor Interrupt Failure - Compressor 2A
64980	412032	Starter Contactor Interrupt Failure - Compressor 2B
61E86	401030	Starter Did Not Fully Accelerate - Compressor 1A
64596	411030	Starter Did Not Fully Accelerate - Compressor 2A
61E71	401009	Starter Did Not Transition - Compressor 1A
62259	402009	Starter Did Not Transition - Compressor 1B
64581	411009	Starter Did Not Transition - Compressor 2A
64969	412009	Starter Did Not Transition - Compressor 2B
61E82	401026	Starter Dry Run Test - Compressor 1A
6226A	402026	Starter Dry Run Test - Compressor 1B
64592	411026	Starter Dry Run Test - Compressor 2A
6497A	412026	Starter Dry Run Test - Compressor 2B
61E69	401001	Starter Failed to Arm/Start - Compressor 1A
62251	402001	Starter Failed to Arm/Start - Compressor 1B
64579	411001	Starter Failed to Arm/Start - Compressor 2A
64961	412001	Starter Failed to Arm/Start - Compressor 2B
61E73	401011	Starter Fault Type I - Compressor 1A
6225B	402011	Starter Fault Type I - Compressor 1B
6496B	412011	Starter Fault Type I - Compressor 2B
64583	411011	Starter Fault Type I - Compressor 2A



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
6225C	402012	Starter Fault Type II - Compressor 1B
61E74	401012	Starter Fault Type II - Compressor 1A
64584	411012	Starter Fault Type II - Compressor 2A
6496C	412012	Starter Fault Type II - Compressor 2B
61E75	401013	Starter Fault Type III - Compressor 1A
6225D	402013	Starter Fault Type III - Compressor 1B
64585	411013	Starter Fault Type III - Compressor 2A
6496D	412013	Starter Fault Type III - Compressor 2B
61E80	401024	Starter Module Memory Error Type 1 - Compressor 1A
62268	402024	Starter Module Memory Error Type 1 - Compressor 1B
64590	411024	Starter Module Memory Error Type 1 - Compressor 2A
64978	412024	Starter Module Memory Error Type 1 - Compressor 2B
61E81	401025	Starter Module Memory Error Type 2 - Compressor 1A
62269	402025	Starter Module Memory Error Type 2 - Compressor 1B
64591	411025	Starter Module Memory Error Type 2 - Compressor 2A
64979	412025	Starter Module Memory Error Type 2 - Compressor 2B
537F3	342003	Starts/Hours Modified - Compressor 1B
55F03	352003	Starts/Hours Modified - Compressor 2B
5340B	341003	Starts/Hours Modified - Compressor 1A
55B1B	351003	Starts/Hours Modified - Compressor 2A
A41F	42015	Subcooled Liquid Pressure Sensor - Circuit 2
A037	41015	Subcooled Liquid Pressure Sensor - Circuit 1
A420	42016	Subcooled Liquid Temperature Sensor - Circuit 2
A038	41016	Subcooled Liquid Temperature Sensor - Circuit 1
A416	42006	Suction Pressure Transducer - Circuit 2
A02E	41006	Suction Pressure Transducer - Circuit 1
53800	342016	Suction Refrigerant Pressure Sensor - Compressor 1B
55F10	352016	Suction Refrigerant Pressure Sensor - Compressor 2B
53418	341016	Suction Refrigerant Pressure Sensor - Compressor 1A
55B28	351016	Suction Refrigerant Pressure Sensor - Compressor 2A
61E7F	401023	Transition Complete Input Opened - Compressor 1A
62267	402023	Transition Complete Input Opened - Compressor 1B
6458F	411023	Transition Complete Input Opened - Compressor 2A



Diagnostic Code (hex)	Diagnostic Code (decimal)	Diagnostic Name
64977	412023	Transition Complete Input Opened - Compressor 2B
61E76	401014	Transition Complete Input Shorted - Compressor 1A
6225E	402014	Transition Complete Input Shorted - Compressor 1B
64586	411014	Transition Complete Input Shorted - Compressor 2A
6496E	412014	Transition Complete Input Shorted - Compressor 2B
61E83	401027	Under Voltage
61E6D	401005	Unexpected Starter Shutdown - Compressor 1A
62255	402005	Unexpected Starter Shutdown - Compressor 1B
6457D	411005	Unexpected Starter Shutdown - Compressor 2A
64965	412005	Unexpected Starter Shutdown - Compressor 2B
58241	361025	Very Low Discharge Superheat - Compressor 1A
5A951	371025	Very Low Discharge Superheat - Compressor 2A
5861C	362012	Very Low Evap Rfgt Press - Compressor 1B
5AD2C	372012	Very Low Evap Rfgt Press - Compressor 2B
58234	361012	Very Low Evap Rfgt Press - Compressor 1A
5A944	371012	Very Low Evap Rfgt Press - Compressor 2A
38666	231014	Water System Differential Pressure
5D0F6	381174	Winding Temp 1 Sensor - Compressor 1A
5F806	391174	Winding Temp 1 Sensor - Compressor 2A