

BCM MQTT Point Interface Specification

Version: Version 2 (Latest as of 11/6/2025)

ID	Point Type (BCM)	Object Type	Qty	Data Source on BMS	MQTT Topic Path - Value	MQTT Topic Path - Metadata	Topic Path Example	BMS Action	BCM Action	Eng Units	Metadata Payload	Notes
1	RackLiquidSupplyTemperature	Rack	1 / Rack	Rack Energy Valve	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LIQUID/SupplyTemperature/Value	W	R	C	pointType, objectType, engUnit, rackName, rackID	
2	RackLiquidReturnTemperature	Rack	1 / Rack	Rack Energy Valve	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LIQUID/ReturnTemperature/Value	W	R	C	pointType, objectType, engUnit, rackName, rackID	
3	RackLiquidFlow	Rack	1 / Rack	Rack Energy Valve	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LIQUID/Flow/Value	W	R	LPM	pointType, objectType, engUnit, rackName, rackID	
4	RackLiquidDifferentialPressure	Rack	1 / Rack	Rack Energy Valve	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LIQUID/DifferentialPressure/Value	W	R	kPa	pointType, objectType, engUnit, rackName, rackID	
5	RackPower	Rack	1 / Rack	Totalize Power of all Rack Circuit Powers	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/POWER/Power/Value	W	R	kW	pointType, objectType, engUnit, rackName, rackID	
6	RackPowerBudget	Rack	1 / Rack	BMS Setpoint	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/POWER/PowerBudget/Value	W	R	kW	pointType, objectType, engUnit, rackName, rackID	
7	RackCircuitPower	Rack	1 / Rack Circuit (4 for 4toMake3)	PQM in Tap Can or RPP Feeder (if not present then use rPDU inlet)	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/POWER/CIRCUIT1/Power/Value	W	R	kW	pointType, objectType, engUnit, rackName, rackID, circuitName, circuitID	
8	RackCircuitCurrent	Rack	1 / Rack Circuit (4 for 4toMake3)	PQM in Tap Can or RPP Feeder (if not present then use rPDU inlet)	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/POWER/CIRCUIT1/Current/Value	W	R	A	pointType, objectType, engUnit, rackName, rackID, circuitName, circuitID	
9	RackCircuitCurrentLimit	Rack	1 / Rack Circuit (4 for 4toMake3)	BMS Setpoint	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/CIRCUIT1/CurrentLimit/Value	W	R	A	pointType, objectType, engUnit, rackName, rackID, circuitName, circuitID	
10	RackCircuitPhaseCurrent	Rack	3 / Rack Circuit (4 for 4toMake3)	PQM in Tap Can or RPP Feeder (if not present then use rPDU inlet)	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/POWER/CIRCUIT1/PHASE1/Current/Value	W	R	A	pointType, objectType, engUnit, rackName, rackID, circuitName, circuitID, phase	
11	CircuitPower	Circuit	1 / Circuit	PQM in Circuit PQM or Totalized by Rack Circuit	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CIRCUIT1/Power/Value	W	R	kW	pointType, objectType, engUnit, circuitName, circuitID	
12	CircuitCurrent	Circuit	1 / Circuit	PQM in Circuit PQM or Totalized by Rack Circuit	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CIRCUIT1/Current/Value	W	R	A	pointType, objectType, engUnit, circuitName, circuitID	
13	CircuitCurrentLimit	Circuit	1 / Circuit	BMS Setpoint	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CIRCUIT1/CurrentLimit/Value	W	R	A	pointType, objectType, engUnit, circuitName, circuitID	
14	CircuitPhaseCurrent	Circuit	3 / Circuit	PQM in Circuit PQM or Totalized by Rack Circuit	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CIRCUIT1/PHASE1/Current/Value	W	R	A	pointType, objectType, engUnit, circuitName, circuitID, phase	

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15	LeakDetectRack	Rack	1 / Rack	BMS sets to indicate Rack Leak Detected (Row Leak will set Active for all Racks in Row)	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/DetectStatus/Value	W	R	-	pointType, objectType, rackName, rackID	0 = No Leak, 1 = Leak
16	LeakSensorFaultRack	Rack	1 / Rack	BMS sets to indicate Rack Leak Detection is not working properly due to fault or loss of coms	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/DetectFault/Value	W	R	-	pointType, objectType, rackName, rackID	0 = No Fault, 1 = Fault
17	LeakDetectRackTray	Rack	1 / Rack	BCM sets to indicate Rack Leak Detected in a Tray	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/TrayDetectStatus/Value	R	W	-	pointType, objectType, rackName, rackID	0 = No Leak, 1 = Leak
18	LeakResponseRackLiquidIsolationStatus	Rack	1 / Rack	BMS sets to indicate Rack Liquid Isolation is Active	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/LiquidIsolationStatus/Value	W	R	-	pointType, objectType, rackName, rackID	0 = Not Isolated, 1 = Isolated
19	LeakResponseRackElectricalIsolationStatus	Rack	1 / Rack	BMS sets to indicate Rack Electrical Isolation is Active (Row Electrical Isolation will also set Active)	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/ElectricalIsolationStatus/Value	W	R	-	pointType, objectType, rackName, rackID	0 = Not Isolated, 1 = Isolated
20	LeakResponseRackLiquidIsolationRequest	Rack	1 / Rack	BCM writes to request Rack Liquid Isolation	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/LiquidIsolationRequest/Value	R	W	-	pointType, objectType, rackName, rackID	0 = Isolation NOT Requested, 1 = Isolation Requested
21	LeakResponseRackElectricalIsolationRequest	Rack	1 / Rack	BCM writes to request Rack Electrical Isolation	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/C19/LEAK/ElectricalIsolationRequest/Value	R	W	-	pointType, objectType, rackName, rackID	0 = Isolation NOT Requested, 1 = Isolation Requested
22	CDULiquidSupplyTemperature	CDU	1 / CDU	CDU - Secondary Supply Temperature	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/LIQUID/SupplyTemperature/Value	W	R	C	pointType, objectType, engUnit, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU
23	CDULiquidReturnTemperature	CDU	1 / CDU	CDU - Secondary Return Temperature	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/LIQUID/ReturnTemperature/Value	W	R	C	pointType, objectType, engUnit, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU
24	CDULiquidDifferentialPressure	CDU	1 / CDU	CDU - Secondary Differential Pressure	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/LIQUID/DP/Value	W	R	kPa	pointType, objectType, engUnit, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU
25	CDULiquidFlow	CDU	1 / CDU	CDU - Secondary Flowrate	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/LIQUID/Flow/Value	W	R	LPM	pointType, objectType, engUnit, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU
26	CDULiquidSystemPressure	CDU	1 / CDU	CDU - Secondary System (Return) Pressure	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/LIQUID/SystemPressure/Value	W	R	kPa	pointType, objectType, engUnit, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU
27	CDUStatus	CDU	1 / CDU	CDU - Status of CDU Running	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/Status/Value	W	R	-	pointType, objectType, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU / 0 = Not Operating, 1 = Operating
28	CDUAvailable	CDU	1 / CDU	CDU - BMS logic to show Available when not failed and not disabled	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/CDU3/Available/Value	W	R	-	pointType, objectType, CDUName, CDUID, rackName, rackID	"Rack" metadata to list all racks served by CDU / 0 = Not Available, 1 = Available

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29	HeartbeatBCMtoBMS	Heartbeat	1	BMS writes "1" 5 seconds after seeing "0". BMC writes "0" 5 seconds after seeing "1"	BCM/(no specific requirements)/Value	BCM/(must match value topic path)/Metadata	BCM/TPE01/Heartbeat/Value	R/W	R/W	-	pointType, objectType	