

INDUSTRIAL AUTOMATION PRODUCT

KJ2005X1-SQ1-12P6383X022

DeltaV SQ Controller

Emerson KJ2005X1-SQ1-12P6383X022 is a DeltaV SQ controller for small-to-moderate process-control applications. It executes control logic, communicates with DeltaV I/O and network nodes, and supports simplex or 1:1 redundant controller operation.

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
System family	Emerson DeltaV S-series controller system
Part number	KJ2005X1-SQ1-12P6383X022
Product role	Executes scheduled DeltaV control strategies
Lifecycle	Installed product record

DOCUMENT SCOPE

Exact-article identity, technical data, host role, installation checks, applications, precautions and engineering verification.

MODEL-SPECIFIC ENGINEERING NOTE

Mount KJ2005X1-SQ1-12P6383X022 on the documented S-series power/controller carrier with its dedicated power supply, and record both RJ45 control-network paths before removal.

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X022

Technical Specifications

Technical values below are limited to the named Emerson product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Controller model	SQ	Module execution rates	100 ms to 60 s
DeltaV model number	SE3008	Typical power dissipation	5.0 W
User memory	48 MB	Maximum power dissipation	7.0 W
DST limit	750	Operating temperature	-40 to +70 deg C
SCADA tags	3200	Storage temperature	-40 to +85 deg C
Maximum data values sent	2000 per second	Relative humidity	5 to 95 percent, non-condensing
Maximum data values received	250 per second	Protection rating	IP20
Maximum unsolicited client nodes	64	Primary/secondary network	8-pin RJ45

Verified Product Record

DATA GROUP	VERIFIED VALUE
Installed host / carrier	Emerson DeltaV S-series controller system
Primary system role	Executes scheduled DeltaV control strategies
Connection boundary	Mount KJ2005X1-SQ1-12P6383X022 on the documented S-series power/controller carrier with its dedicated power supply, and record both RJ45 control-network paths before removal.
Controlled acceptance duty	Small process-unit control

ENGINEERING BOUNDARY

Confirm KJ2005X1-SQ1-12P6383X022, SQ model SE3008, carrier, dedicated supply, controller hardware version, both RJ45 network paths, DeltaV software, I/O topology, redundancy license, grounding, diagnostics and controlled switchover results before commissioning.

Pre-Installation Checks

1	Confirm KJ2005X1-SQ1-12P6383X022, DeltaV SQ model SE3008 and the installed carrier position.	2	Place the controlled process and all final elements in the approved maintenance state.
3	Isolate the dedicated controller supply and apply ESD controls before handling the unit.	4	Record primary and secondary RJ45 network connections and every assigned I/O node.

Documented Service Record

RECORD ITEM	REQUIRED ENTRY
As-found article	KJ2005X1-SQ1-12P6383X022
Installed host	Emerson DeltaV S-series controller system
Connection record	Capture before removal
Controlled release	Diagnostics and functional proof

System Role and Architecture

Emerson KJ2005X1-SQ1-12P6383X022 is a DeltaV SQ controller for small-to-moderate process-control applications. It executes control logic, communicates with DeltaV I/O and network nodes, and supports simplex or 1:1 redundant controller operation.

FUNCTION 1
Executes scheduled DeltaV control strategies

FUNCTION 2
Supports traditional, CHARM and WirelessHART I/O

FUNCTION 3
Uses Explorer Auto-Sense for controller commissioning

FUNCTION 4
Supports simplex or one-to-one redundant operation

Matched System Components

NO.	DOCUMENTED COMPONENT / ROLE
1	Emerson DeltaV S-series controller system
2	SE3008
3	Small process-unit control
4	Mount KJ2005X1-SQ1-12P6383X022 on the documented S-series power/controller carrier with its dedicated power supply, and record both RJ45 control-network paths before removal.

System Integration Record

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Emerson DeltaV S-series controller system
Interface role	Executes scheduled DeltaV control strategies
Field / power context	The SQ controller operates with traditional, CHARM and WirelessHART I/O through the documented DeltaV architecture.
Commissioning evidence	Review diagnostics and complete a controlled process test and redundancy transfer before release.

Installation and Connection Checks

1 Confirm the S-series power/controller carrier, dedicated supply and cabinet grounding.

2 Restore the approved DeltaV project, software version and Explorer controller assignment.

3 For redundant service, confirm same-series hardware, redundancy license and standby commissioning.

4 Review diagnostics and complete a controlled process test and redundancy transfer before release.

MANUFACTURER SOURCE RECORD

DeltaV SQ Controller Product Data Sheet and DeltaV Controller Redundancy
Emerson, January 2018 and October 2023

Applications and Engineering Context

Small process-unit control

Executes regulatory and sequence strategies for a compact DeltaV process area.

CHARMs electronic marshalling

Coordinates controller execution with the documented CHARM I/O topology.

Distributed DeltaV I/O

Exchanges process data with traditional and remote I/O nodes over the approved network.

Redundant controller modernization

Provides a one-to-one standby arrangement with controlled switchover verification.

TECHNICAL NOTE

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Model-Specific Acceptance Evidence

CHECK	ACCEPTANCE CONDITION
Identity	KJ2005X1-SQ1-12P6383X022 recorded
Host / carrier	Emerson DeltaV S-series controller system
Physical interface	Executes scheduled DeltaV control strategies
Configuration	For redundant service, confirm same-series hardware, redundancy license and standby commissioning.
Functional proof	Review diagnostics and complete a controlled process test and redundancy transfer before release.

IMPORTANT NOTICE

Confirm KJ2005X1-SQ1-12P6383X022, SQ model SE3008, carrier, dedicated supply, controller hardware version, both RJ45 network paths, DeltaV software, I/O topology, redundancy license, grounding, diagnostics and controlled switchover results before commissioning.

Controlled Release Summary

RELEASE ITEM	MODEL-SPECIFIC CONDITION
Article identity	KJ2005X1-SQ1-12P6383X022
Approved role	Small process-unit control
Final validation	Review diagnostics and complete a controlled process test and redundancy transfer before release.

Engineering Precautions

1	Confirm KJ2005X1-SQ1-12P6383X022, DeltaV SQ model SE3008 and the installed carrier position.	2	Place the controlled process and all final elements in the approved maintenance state.
3	Isolate the dedicated controller supply and apply ESD controls before handling the unit.	4	Record primary and secondary RJ45 network connections and every assigned I/O node.
5	Confirm the S-series power/controller carrier, dedicated supply and cabinet grounding.	6	Restore the approved DeltaV project, software version and Explorer controller assignment.
7	For redundant service, confirm same-series hardware, redundancy license and standby commissioning.	8	Review diagnostics and complete a controlled process test and redundancy transfer before release.

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
KJ3003X1-EA1	DeltaV analogue input module	View KJ3003X1-EA1 page
KJ4006X1-BD1	DeltaV I/O terminal block	View KJ4006X1-BD1 page
KC4011X1-BZ1	redundant mass terminal	View KC4011X1-BZ1 page
KJ2201X1-HA1	DeltaV logic-solver assembly	View KJ2201X1-HA1 page
KJ2201X1-BA1	DeltaV SIS logic solver	View KJ2201X1-BA1 page
KJ3221X1-BA1	analogue input module	View KJ3221X1-BA1 page
KJ4001X1-BE1	eight-wide I/O carrier	View KJ4001X1-BE1 page
KJ2005X1-BK1	DeltaV SX controller	View KJ2005X1-BK1 page

MANUFACTURER SOURCE RECORD

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