01 / Drive identity and control role

REXROTH

DKC10.3-012-3-MGP-01VRS

Servo Drive Controller

Product role

Rexroth DKC10.3-012-3-MGP-01VRS is an EcoDrive Cs servo drive controller with MGP 01VRS firmware and configurable digital I/O for positioning tasks.

Digital commands
Selection / strobe / enable

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DKC10.3 + MGP
Configured motion blocks

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Axis and status
Motor motion / acknowledgment

Configuration boundary

The DKC10.3 basic-device design and MGP 01VRS functions apply. A fieldbus interface requires the corresponding optional communication module; the complete motor and machine configuration must match.

02 / Technical capability map

Item	Verified design fact	Item	Verified design fact
Product type	Servo drive controller	Digital start	Positive edge of the positioning-command strobe
System family	EcoDrive Cs	Signal control / status	S-0-0145 / S-0-0144
Basic-device interface	No master communication; optional module required for fieldbus	I/O assignment parameters	P-0-0124 / P-0-0125
Firmware designation	MGP 01VRS	Nominal DC-bus code	3 = 300 VDC nominal DC bus
Digital inputs	7, configurable	Power input, UL conditions	200–230 VAC, 50/60 Hz for DKC**.3-012
Digital outputs	3, configurable	Ambient, UL conditions	40 °C at nominal data; up to 55 °C with reduced data
Positioning-block capacity	64 programmed blocks in MGP positioning-block mode	Installation environment	Enclosure providing pollution degree 2
Positioning-block settings	Target, velocity, acceleration, deceleration and jerk	Motor-cable limit	40 m with specified Rexroth cable, ≤40 °C ambient and ≤8 kHz switching

03 / Positioning and machine integration

Programmed positioning

Run stored motion blocks with configured target position, velocity, acceleration, deceleration and jerk. Confirm the machine travel limits and feedback reference before operation.

Sequential motion

Link a rapid approach to a slower final positioning move. Sequential-block conditions determine the transition, and the final block terminates the chain.

Local digital control

Use the configurable DKC10.3 digital inputs for block selection, strobe, enable and reset. Match the input assignment to the machine control circuit.

Jogging and setup

Use configured jog inputs to move the axis in manual setup mode. Keep the working area secured and verify the selected direction and jog velocity.

Positioning-block selection

MGP supports 64 programmed blocks. A particular digital selection arrangement may address only a subset; use the actual input mapping and block configuration.

04 / Engineering decisions and precautions

Complete drive identity

Retain DKC10.3-012-3-MGP-01VRS, the hardware index and actual firmware release. The 012 type-code current designation is not a universal continuous motor-output current.

Electrical isolation

Qualified personnel must isolate the drive before connector work and follow the manufacturer procedure for stored energy. Secure the axis against unintended movement.

Grounding and enclosure

Connect the drive protective earth to the cabinet grounding system and check continuity to the motor. Use an enclosure that maintains the required pollution-degree-2 environment.

Motion-block limits

Set valid acceleration and deceleration for each positioning block. If both are zero, the drive cannot brake to the commanded target; validate the motion profile before release.

Cooling conditions

The UL-rated ambient limit at nominal data is 40 °C; operation up to 55 °C requires reduced nominal data. Keep the specified cooling clearances unobstructed.

Motor cable conditions

The stated 40 m maximum motor-cable length applies to ready-made Rexroth cable, ambient temperature at or below 40 °C and a maximum switching frequency of 8 kHz. Do not extend this limit to other cable arrangements.

05 / Support, references and portfolio

Lifecycle and supply

The current manufacturer lifecycle phase of DKC10.3-012-3-MGP-01VRS has not been confirmed. Request current support and replacement guidance using the complete installed identity. Apter Power availability and dispatch are confirmed separately in the quotation.

Reference basis

Bosch Rexroth EcoDrive Cs Drives Instruction Manual, R911320343 Edition 01; EcoDrive Cs MGP 01VRS Functional Description, R911296549 Edition 02.

Apter Power technical summary; not a manufacturer-issued manual. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Phoenix Contact QUINT-PS/1AC/24DC/10 2866763

Phoenix Contact QUINT-PS-100-240AC/24DC/10 2938604

Phoenix Contact QUINT4-PS/1AC/12DC/15

Discuss your installed configuration

Send the full unit marking and connection details.

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