Plattform MX6
Software option S300
Motion Basic + SoftMotion

1 Identification

Identification	
Option ID	S300
Order number	S-05000402-0000
Short name	Motion Basic + SoftMotion
Brief description	Soft Motion: With this software option it is possible to control drives via cyclic setpoints from the PLC (path calculation in the PLC). Motion Basic: This software option makes it possible to command and monitor drives via the PLC (path calculation in the drive).
Revision ID document	V3.0

2 System requirements and restrictions

System requirements and restrictions	
Supported platforms and devices	Berghof PLC devices of the MX6 platform (e.g.: MCs, CCs, DCs). Additional information regarding availability and compatibility can be found in options section of the product catalog.
Firmware	MX6-PLC from version 1.3.3, CODESYS from 3.5 SP5 Patch 4
Additional requirements	— EtherCAT fieldbus interface (recommend) — CANopen fieldbus interface
Restrictions	— When using CANopen, the sync should be generated in a slave. — The parallel use of the RS485 interface is not recommended due to the resulting system jitter

3   Product description

This software option activates the licence for the CODESYS SoftMotion functionality for the device.
SoftMotion includes the functionality of Motion Basic and extends it with single-axis and coordinated multi-axis traversing movements, e.g. with position and speed specifications, gear functions and phase control. This extends the scope of functions for complex movements with coordinated axes. Cam plates or virtual king shafts can also be implemented.

The implementation of motion applications is supported by the motion libraries supplied and abstracted from the hardware used. With the help of virtual drives, project planning is also possible without drive hardware.

Further information and a list of supported drives can be found under:
https://www.codesys.com/products/codesys-motion-cnc-robotics/softmotion.html

A generic driver interface is also available for drives not listed. The drives must support the DS402 operating modes "cyclic synchronous position" (8), "cyclic synchronous velocity" (9) or "cyclic synchronous torque" (10).

For full documentation please check the CODESYS Online help under:
https://help.codesys.com/webapp/_sm_f_softmotion;product=codesys_softmotion;version=4.7.0.0

4   Technical data

Technical data	
Function Blocks	PLCopen MotionControl Part 1, PLCopen MotionControl Part 2
3D-CNC-Editor	DIN 66025