

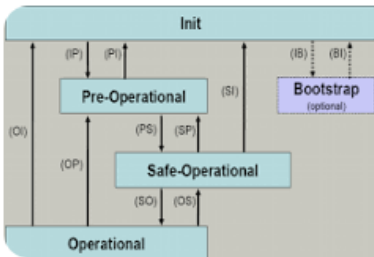
BeckHoff Startup Parameter Data Transfer

This describes the order and when startup parameters are applied

Contents

Comments

Startup data is transferred during the Ethercat start up sequence. The Ethercat state machine transitions from Init > Pre-op > Safe-op > Op



If you look at the start up list there is a column identifying in which transition the setting is applied

Index	Transition	Complete	access	Name	Set value
S-0-0015	PS	True		Telegram type	7
S-0-0016	PS	True		AT list	Show in list...
S-0-0024	PS	True		MDT list	Show in list...
P-0-0010	IP	True		Feature flags	0b0000 0000 0000 0000 00x
S-0-0032	PS	True		Primary operation mode	pos ctrl feedback 1 la
P-0-0304	IP	True		Report diagnostics information	0x0001

PS – Pre-Op to Safe_Op

IP – Init to Pre-Op

The Ethercat state machine will be cycled when you move from Config mode to Run mode, if you press the Run mode (Restart) button, during an Online reset or when you Activate.

The startup list must be downloaded to the online project before it will take effect, this occurs during an activation.

Some parameters can be downloaded for immediate effect, but this does not mean the Startup list in the project is updated. The states in which parameters can be changed is variable due to the consequence of the change. For AX5000 drives this information is found in the IDN Descriptions manual. https://download.beckhoff.com/download/Document/motion/AX5000_IDN_Description_en.pdf

P-0-0071 Mechanical motor data

This IDN is used to specify motor inertia J_m and load inertia of the configured rotary motor.

Attributes

Name	Value
Datatype	udec
Data length in bit	96
Decimal point	0
Min. Value	0
Default	0
Max. Value	200.00; from Rev. 210: 400000.00
Unit	0.0001 kgm ² (kgcm ²)
Changeable in EtherCAT state	PreOp, SafeOp and Op
Cyclic transfer	No
Device parameter	No
Related to interface revision	changed from Rev. 210

If the change is not possible in Op mode, then an update to the Startup list and a restart of the Ethercat state machine is necessary to invoke the change. This requires an activation.