

Parametrizzazione

Questa pagina descrive come **parametrizzare** il servo drive Epulse50. Il drive viene configurato con il software PC, che imposta i parametri del motore, il loop di controllo e il comportamento applicativo.

Per configurare il drive motore integrato, usa il software PC Motolab Starter:

https://www.nilab.at/download/motolab_starter_ver0-0-1-0/?wpdmdl=6631&refresh=635638e9ee1601666595049

The screenshot shows the Motolab Starter Configuration Tool interface. On the left, the 'DRIVE STATUS' section shows 'READY' and 'ON' buttons. Below it, 'I/O Status' shows digital inputs and outputs. The 'Actuator Status' section displays 'Motor Speed' at -1 RPM, 'Linear Speed' at -0.1 mm/sec, 'Motor Current' at 0.0 A, and 'Current Position' at 1,897 mm. The main area is the 'Motion Table' with columns for Index, Motion type, Position, A, B, C, Waiting, and Trigger mode. The table lists 10 motion profiles. Below the table, there are 'START MOTION' and 'STOP MOTION' buttons. On the right, the 'Digital Outputs Setup' section shows 'Digital Output 1 Setup' at 154 and 'Digital Output 2 Setup' at 427.

Index	Motion type	Position	A	B	C	Waiting	Trigger mode	
793	0	Polynomial	110,000 mm	800 msec	0 msec	300 msec	10 msec	DIG IN rise
804	1	Polynomial	190,000 mm	800 msec	0 msec	300 msec	10 msec	Auto
815	2	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
826	3	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
837	4	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
848	5	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
859	6	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
870	7	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
881	8	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
892	9	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto

The screenshot shows the Motolab Starter Configuration Tool interface with the 'Control Loop Diagram' selected. The diagram illustrates the control loops for Position, Speed, and Current. The 'Position Loop' starts with a 'Setpoint' input, which is compared with the 'Current Position' to generate an error signal. This error signal is processed by a PID controller (431) to produce a 'Motor Speed' setpoint. The 'Speed Loop' then takes this setpoint and compares it with the 'Motor Speed' feedback to generate another error signal, which is processed by a PID controller (76) to produce a 'Motor Current' setpoint. The 'Current Loop' takes this setpoint and compares it with the 'Motor Current' feedback to generate a final error signal, which is processed by a PID controller (51) to drive the motor (M). The 'Motion Command' section at the bottom shows parameters for the motion profiles, including 'Current setpoint' (4128), 'Speed setpoint' (4134), 'Acceleration time' (84), and 'Deceleration time' (85).

Motion Command

4128	Current setpoint	0,000 A	84	Acceleration time	2 msec
4134	Speed setpoint	0,000 RPM	85	Deceleration time	2 msec

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Passi di configurazione

- Collega il drive al PC con il cavo di programmazione USB. - Avvia Motolab Starter e seleziona il drive e il motore collegato. - Imposta i parametri del motore (tipo di feedback, numero di poli, limiti di corrente) secondo il datasheet. - Configura il loop di controllo, il profilo di movimento e le impostazioni fieldbus. - Salva la configurazione sul drive e verifica il funzionamento del motore.

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