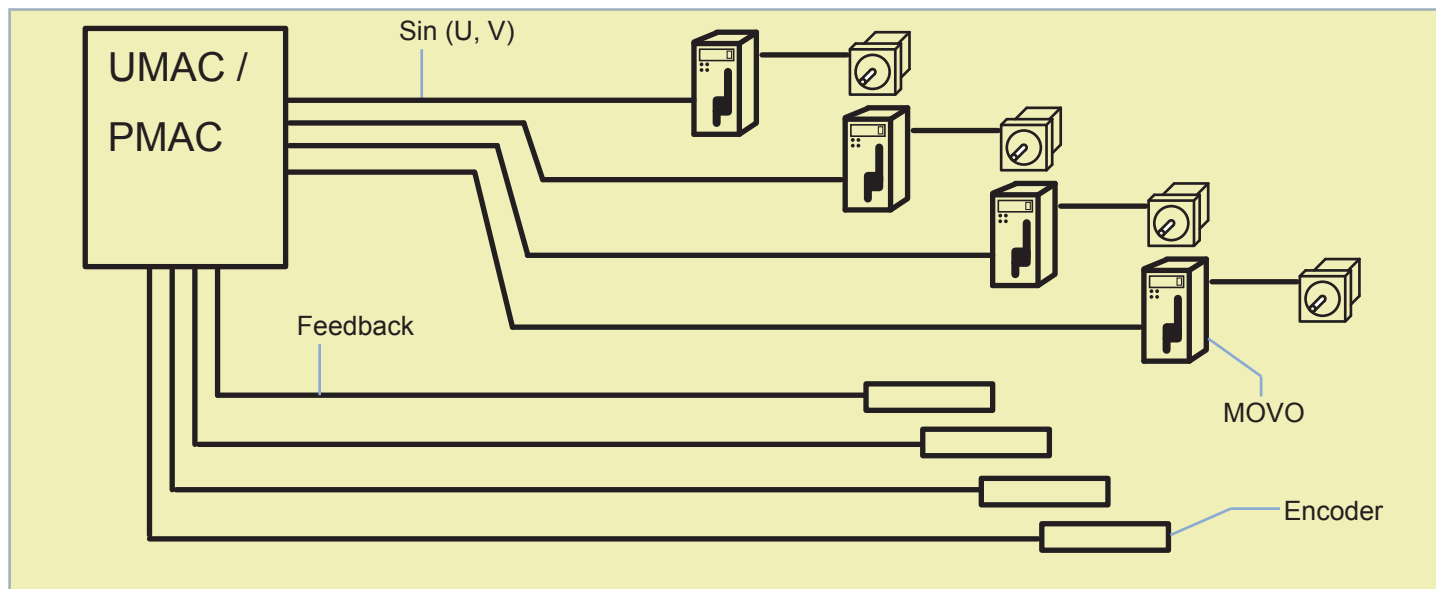


Serial 2 phase current command type

(Option)

PROVISIONAL LEAFLET

System example



Serial 2 phase current command mode

A motion controller such as UMAC / PMAC can operate motor current with the serial input port of MOVO (Versatile Motion Controller / Driver).

The serial 2 phase command mode operates vector control by 3 phase current command which is received as 2 phase command through serial communication.

The system can be more simple since pole sensor or encoder signal, which manages electrical angle, is not required as the command is transferred with 2 phase format.

Principal specification

Motion mode	SRI Serial 2 phase current command mode
Analog input port	2 channels, Differential / Single end
Input command data	16 bit (DSP model), 12 bit (Base model)
Control type	DQ Vector control
A/D Resolution of current detection	16 bit fast sigma-delta type
PWM frequency	15 - 40 kHz (DSP model), 15 / 20 (Base model)
PWM Resolution	7 ns
Current control cycle	Synchronized with PWM frequency
Current response	3 kHz (DSP model), 1.5 kHz (Base model)
Output	100 W to 8 kW (Refer to MOVO Power class)

Features

- Vector control

Power factor compensation (used in serial direct control) is not required, as the serial command is used in the DQ frame for the vector control.

- High performance sigma-delta A/D

Output current detection has a fine resolution close to analog, since it is done with fast and high performance sigma-delta A/D type.

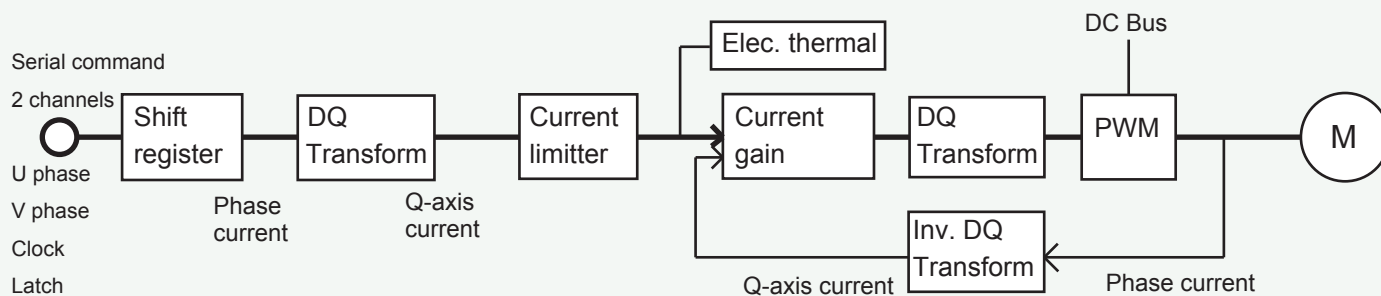
- Motor protection

Motor can be safely operated with the motor protection such as Torque limit, Electrical thermal, Bus voltage management, etc.

-Current gain tuning

Auto-tuning, Auto-culculating of gain are provided to help identify current gain.

❖ MOVO Internal system



MOVO Serial 2 phase current command mode

SVF Series

❖ MOVO Power class

100V Single phase

Rated power (W)	80	160	262	436	654
Rated current (A)	0.8	1.6	2.5	4.2	6.3
SVF	SVFM1	SVFM2	SVFM4	SVFM6	SVFM8

Overload tolerance: 250%, 30sec for each model

24/48V DC Input can be applied by option (The rated power is reduced proportionally to the DC voltage)

200V Single phase

Rated power (W)	160	262	436	727	1,090
Rated current (A)	0.8	1.3	2.1	3.5	5.3
SVF	SVFH1	SVFH2	SVFH3	SVFH5	SVFH8

Overload tolerance: 250%, 30sec for each model

200V Three-phase

Rated power (kW)	2	4	8
Rated current (A)	7.5	15	30
SVF	SVFH10	SVFH20	SVFH40

Overload tolerance: 200%, 30sec for each model

❖ Product appearance

All of the following pictures show SVF EtherCAT type drivers.



8 kW



1 kW



730 W



260 W

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