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DAY3025/DAP03/DAY3100 AC SPINDLE SERVO DRIVER

Brief Introduction

DAY, DAP series spindle servo driver achieves the speed control and position control of the three-phase servo motor using the rotor magnetic vector control and weak magnetic control technique, which is not only satisfied with the spindle speed-regulation range, big torque in a low speed and rapidly brake, and also achieved the spindle orientation, rigid tapping and Cs axis control.

Technical Specification

Drive unit type	DAY3025	DAP03—055	DAP03—075	DAP03—110	DAY3100
Input power	Three phases AC380V（85%~110%） 50/60Hz±1Hz				
The rated power of the matched motor (kW)	1.5~3.7	5.5	7.5	11	15~18.5
Contour dimension (mm) (W×H×D)	95×335×218.8	214.5×362×230			138×415×291
Speed-regulation ratio by the Constant torque	1000:1				
Speed-regulation ratio by the constant power	4:1				
Speed stabilizing accuracy	Rate speed ×0.1%				
Working mode	speed, position and speed/position. Manual, JOG,				

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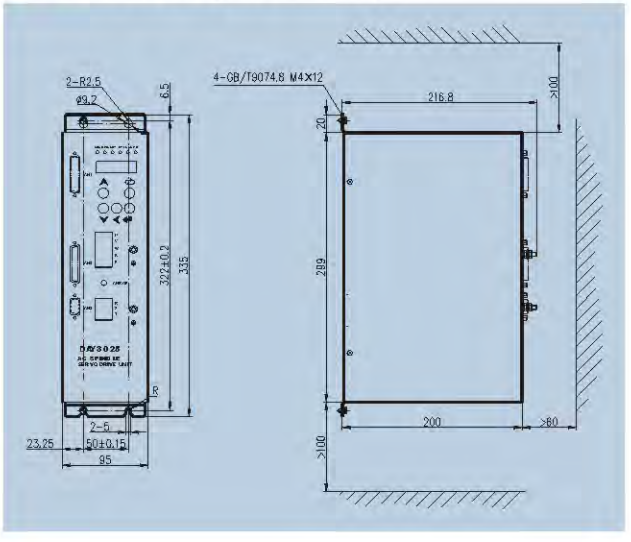
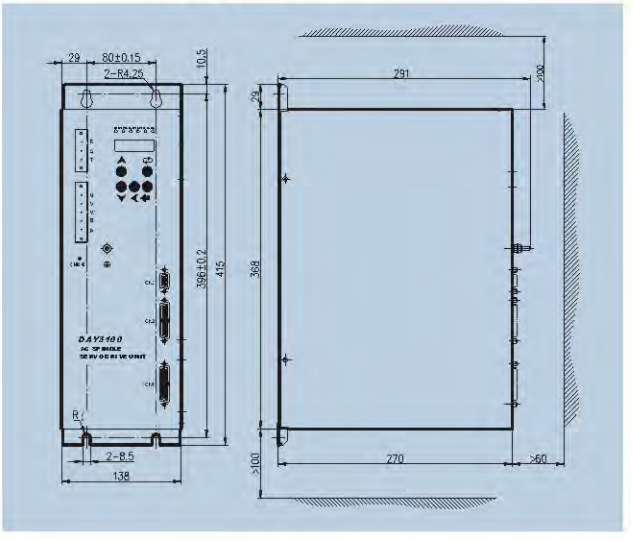
Internal speed mode	The parameter setting of the internal 7-section speed, and the selection of the input point.
External speed mode	Analog command mode: ①－10V～+10V; ② 0V～+10V.
Position mode	Position command mode: ① pulse + direction; ② CCW pulse/CW pulse; ③ A/B two phases orthogonal pulse.
Orientating function	Eight orientation points on the motor encoder or the 2nd position encoder can be set. The orientation points can be selected by the external contact signal and the motor's (or spindle) orientation is started, its orientation angle error is $\frac{180^{\circ}}{Encoder\ resolution}$
Electronic gear function	In the speed mode, the analog speed command electronic gear ratio is 0.1～10.
	Position command electronic gear ratio: $\frac{1}{32767}$ ～32767.
Motor encoder feedback input	Incremental encoder feedback, A/B/Z differential signal and encoder resolution 128p/r～8000p/r can be set.
The 2nd position encoder feedback input	Incremental encoder feedback, A/B/Z differential signal and resolution 128p/r～8000p/r can be set.
Position feedback output	Motor's encoder or the 2nd position encoder signal outputs with 1:1, A/B/Z differential signal.
Input signal	There are 11 points can be input: servo enabling, CCW start, CW start, orientation start, the 2nd speed gain selection, orientation (speed) selection, zero speed clamping, alarm resetting and speed/position shifting.
Output signal	Seven output points: already, zero speed output, position/speed arrival, the completion of the orientation, alarm output, speed/state position state and position feedback Z pulse.
Protective function	Overvoltage, undervoltage, open-phase, overspeed, overcurrent, overload, overheating, encoder abnormity and position error.
Operation and display	Five keys, the manual and JOG operation can be performed; parameter modification, setting ,write-in and backup can be operated, 6-digit LED can be selected for displaying the software, working mode, current speed, speed command, encoder current position, current, I/O state, DC bus voltage, alarm code and parameter.
Brake mode	Dynamic braking (External brake resistance)

Overall Installation Dimension

DAY3025 (unit: mm)



DAY3100 (unit: mm)



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● DAP03 (Unit:mm)