

CoolDrive® S7



New Arrival

High-end & Smart

More Compact More Smart More Easy-to-use
 Excellent Performance & Quality
 Multiple functions meet various industry needs

S7 New-generation smart servo drive

Excellent industrial design




- Concise appearance and compact structure
- Side by side mounting for space saving
- OLED screen shows more info
- Using spring crimping terminal for reliable connection

Performance

- Multi-core DSP brings substantial improvement in performance
- Update time of current loop is as fast as 2.5μs
- Control cycle of speed loop and position loop can be as fast as 62.5μs
- Multiple encoders with resolution up to 24bits can be supported
- 5 notch filters with frequency set at 50~4000Hz
- Vibration suppression with effective filtering frequency of 0.5~300Hz

Application functions

- Auto-tuning function
- Auto-adapting notch filter
- Automatic gain switch
- High performance full-closed control
- High-precision gantry synchronization
- Field weakening control of high-speed motor
- Vibration suppression
- Model tracking vibration suppression
- Quadrant projection compensation
- Functional safety
- Wireless Bluetooth data communication
- Strong data storage
- Motor temperature detection

Standard type:CDS7S	Multi-function type:CDS7F	Direct-drive type:CDS7L
		
Matched motor		
Rotary motor	Rotary motor	Linear motor and DD motor
Control mode		
Position, speed and torque control	Position, speed, torque, and full-closed control	Position, speed and torque control
Type		
T1-T4	T1-T4	T1-T4
First encoder interface (CDS7S only supports single encoder interface)		
Serial Asynchronous Encoder Support Tamagawa, Nikon, Hiperface DSL etc protocols ^{*1}	Serial Asynchronous Encoder Support Tamagawa, Nikon, Hiperface DSL etc. protocols ^{*1}	Hall Sensor
Serial Synchronous Encoder Support Biss-C, EnDat2.2 etc protocols ^{*1}	Serial Synchronous Encoder Support Biss-C, EnDat2.2 etc. protocols ^{*1}	-
Second encoder interface (CDS7S only supports single encoder interface)		
Incremental Encoder	Incremental Encoder	Incremental Encoder
Hiperface Encoder	Serial Asynchronous Encoder ^{*1}	Serial Asynchronous Encoder ^{*1}
Control command interface		
EtherCAT	EtherCAT	EtherCAT
CANopen	CANopen	CANopen
-	-	Pulse
Debugging Communication Interface		
USB ●	USB ●	USB ●
Bluetooth (lowest version 4.0) ○	Bluetooth (lowest version 4.0) ○	Bluetooth (lowest version 4.0) ○
I/O interface		
DI:6 channels,including 2 high-speed channels		
DO:3 channels		
Safety interface		
STO ○	STO ●	STO ○
Integrated Security Function		
Safe Torque Off (STO) ○	Safe Torque Off (STO) ●	Safe Torque Off (STO) ○
Safe Stop 1 (SS1) ●	Safe Stop 1 (SS1) ●	Safe Stop 1 (SS1) ●
Safe Stop 2 (SS2) ●	Safe Stop 2 (SS2) ●	Safe Stop 2 (SS2) ●
Safe Braking Control (SBC) ○	Safe Braking Control (SBC) ○	Safe Braking Control (SBC) ○
Standard		
CE directive:EN61800-3, EN61800-5-1		
Functional safety certification:EN61508, EN61800-5-2		

● Standard ○ Optional

*1: Part of the protocol is being developed, contact us for the latest information.



T1 Module	Rated Output Current	Max output Current	Adapted Typical Motor Power	Input Voltage		Size (W×H×D) (mm)
				AC	DC	
	(Arms)	(Arms)	(kW)	(V)	(V)	
CDS7 □ - 1D0A	1	4	0.05/0.1	1/3Ph AC220±15%	DC310±15%	30×170×170
CDS7 □ - 2D0A	2	8	0.2			
CDS7 □ - 3D0A	3	11	0.4			

□ Stands for servo drive type, optional S,F,L.



T2 Module	Rated Output Current	Max output Current	Adapted Typical Motor Power	Input Voltage		Size (W×H×D) (mm)
				AC	DC	
	(Arms)	(Arms)	(kW)	(V)	(V)	
CDS7 □ - 5D0A	5	15	0.75	1/3Ph AC220±15%	DC310±15%	50×170×170
CDS7 □ - 7D0A	7	20	1.0			
CDS7 □ - 010A	10	30	1.5	3Ph AC220±15%		

□ Stands for servo drive type, optional S,F,L.



T3 Module	Rated Output Current	Max output Current	Adapted Typical Motor Power	Input Voltage		Size (W×H×D) (mm)
				AC	DC	
	(Arms)	(Arms)	(kW)	(V)	(V)	
CDS7 □ - 015A	15	45	2.0	3Ph AC220±15%	DC310±15%	110×170×170
CDS7 □ - 020A	20	60	3.0			

□ Stands for servo drive type, optional S,F,L.



T4 Module	Rated Output Current	Max output Current	Adapted Typical Motor Power	Input Voltage		Size (W×H×D) (mm)
				AC	DC	
	(Arms)	(Arms)	(kW)	(V)	(V)	
CDS7 □ - 030A	30	90	5.0	3Ph AC220±15%	DC310±15%	110×170×170

□ Stands for servo drive type, optional S,F,L.



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