





Servo Drive Specifications

220V Series

ASDA-A2R Series		100 W	200 W	400 W	750 W	1 kW	1.5 kW	2 kW	3 kW	4.5 kW	5.5 kW	7.5 kW	11 kW	15kW		
		01	02	04	07	10	15	20	30	45	55	75	1B	1F		
Power supply	Phase / Voltage	Three-phase / Single-phase 220V _{AC}						3-phase 220V _{AC}								
	Permissible Voltage Range	1-phase / 3-phase 200 ~ 230V _{AC} , -15% ~ 10%						3-phase 200 ~ 230V _{AC} , -15% ~ 10%								
	Input Current(3PH) (Units: Arms)	0.39	1.11	1.86	3.66	4.68	5.9	8.76	9.83	17.5	19.4	26.3	48	63		
	Input Current(1PH) (Units: Arms)	0.69	1.92	3.22	6.78	8.88	10.3	-	-	-	-	-	-	-		
	Continuous Output Current (Units: Arms)	0.9	1.55	2.6	5.1	7.3	8.3	13.4	19.4	32.5	40	47.5	54.4	70		
Cooling System		Natural Air Circulation						Fan Cooling								
Encoder Resolution / Feedback Resolution		Incremental encoder: 20-bit ; Absolute encoder: 17-bit														
Control of Main Circuit		SVPWM(Space Vector Pulse Width Modulation) Control														
Tuning Modes		Auto / Manual														
Regenerative Resistor		None			Built-in						External					
Position Control Mode	Max. Input Pulse Frequency <small>(Only for Non-DMCNET mode)</small>	Max. 500Kpps / 4Mpps (Line driver), Max. 200Kpps (Open collector)														
	Pulse Type <small>(Only for Non-DMCNET mode)</small>	Pulse + Direction, A phase + B phase, CCW pulse + CW pulse														
	Command Source	External pulse train (PT mode) <small>(Only for Non-DMCNET mode)</small> / Internal parameters (PR mode)														
	Smoothing Strategy	Low-pass and P-curve filter														
	Electronic Gear	Electronic gear N/M multiple N: 1~32767, M: 1:32767 (1/50<N/M<25600)														
	Torque Limit Operation	Set by parameters														
	Feed Forward Compensation	Set by parameters														
Speed Control Mode	Analog Input Command <small>(Only for Non-DMCNET mode)</small>	Voltage Range		0 ~ ±10 V _{DC}												
		Input Resistance		10KΩ												
		Time Constant		2.2 μs												
	Speed Control Range ¹	1: 5000						1: 3000				1: 2000				
	Command Source	External analog signal <small>(Only for Non-DMCNET mode)</small> / Internal parameters														
	Smoothing Strategy	Low-pass and S-curve filter														
	Torque Limit Operation	Set by parameters or via analog input <small>(Only for Non-DMCNET mode)</small>														
	Frequency Response Characteristic	Maximum 1kHz														
Speed Accuracy ² <small>(At rated rotation speed)</small>	0.01% or less at 0 to 100% load fluctuation															
	0.01% or less at ±10% power fluctuation															
	0.01% or less at 0°C to 50°C ambient temperature fluctuation															
Torque Control Mode	Analog Input Command <small>(Only for Non-DMCNET mode)</small>	Voltage Range		0 ~ ±10 V _{DC}												
		Input Resistance		10KΩ												
		Time Constant		2.2 μs												
	Command Source	External analog signal <small>(Only for Non-DMCNET mode)</small> / Internal parameters														
	Smoothing Strategy	Low-pass filter														
Speed Limit Operation	Set by parameters or via analog input <small>(Only for Non-DMCNET mode)</small>															
Analog Monitor Output		Monitor signal can set by parameters (Output voltage range: ±8V)														
Digital Inputs / Outputs	Inputs	Servo on, Reset, Gain switching, Pulse clear, Zero speed CLAMP, Command input reverse control, Command triggered, Speed/Torque limit enabled, Position command selection, Motor stop, Speed position selection, Position / Speed mode switching, Speed / Torque mode switching, Torque / Position mode switching, PT / PR command switching, Emergency stop, Forward / Reverse inhibit limit, Reference "Home" sensor, Forward / Reverse operation torque limit, Move to "Home", Electronic Cam (E-Cam), Forward / Reverse JOG input, Event trigger PR command, Electronic gear ratio (Numerator) selection and Pulse inhibit input														
	Outputs	Encoder signal output (A, B, Z Line Driver and Z Open Collector) Servo ready, Servo on, At Zero speed, At Speed reached, At Positioning completed, At Torques limit, Servo alarm (Servo fault) activated, Electromagnetic brake control, Homing completed, Output overload warning, Servo warning activated, Position command overflow, Forward / Reverse software limit, Internal position command completed, Capture operation completed output., Motion control completed output., Master position of E-Cam (Electronic Cam)														
Protective Functions		Overcurrent, Overvoltage, Undervoltage, Motor overheated, Regeneration error, Overload, Overspeed, Abnormal pulse control command, Excessive deviation, Encoder error, Adjustment error, Emergency stop activated, Reverse/ Forward limit switch error, Position excessive deviation of full-close control loop, Serial communication error, Input power phase loss, Serial communication time out, short circuit protection of U, V, W, and CN1, CN2, CN3 terminals														
Communication Interface		RS-232 / RS-485 / CANopen / USB / DMCNET														
Environment	Installation Site	Indoor location (free from direct sunlight), no corrosive liquid and gas (far away from oil mist, flammable gas, dust)														
	Altitude	Altitude 1000m or lower above sea level														
	Atmospheric Pressure	86kPa ~ 106kPa														
	Operating Temperature	0°C ~ 55°C (If operating temperature is above 45°C, forced cooling will be required)														
	Storage Temperature	-20°C ~ 65°C														
	Humidity	0 ~ 90% RH (non-condensing)														
	Vibration	9.80665 m/s ² (1G) less than 20Hz, 5.88 m/s ² (0.6G) 20 to 50Hz														
	IP Rating	IP20														
Power System	TN System ³															
Approvals		IEC/EN 61800-5-1, UL 508C, C-tick												   		

Footnote:

- ¹. Rated rotation speed: When full load, speed ratio is defined as the minimum speed (the motor will not pause).
- ². When command is rated rotation speed, the speed fluctuation rate is defined as: (Empty load rotation speed / Full load rotation speed) / Rated rotation speed
- ³. TN system: A power distribution system having one point directly earthed, the exposed conductive parts of the installation being connected to that points by protective earth conductor.