

AT20 Series Specifications



Category	Item	AT20
Basic function	Control Mode	V/F control Sensorless flux vector control (SVC) ≥ 3.7 kW Closed-loop vector control (FVC) (≥ 3.7 kW / optional PG card)
Basic function	Maximum frequency	0~600Hz
Basic function	Carrier frequency	0.5kHz~8kHz The carrier frequency is automatically adjusted based on the load features.
Basic function	Input frequency resolution	Digital setting: 0.01Hz Analog setting: Maximum frequency \times 0.025%
Basic function	Start torque	G Type: 0.5Hz/150%(SVC) P Type: 0.5Hz/100%
Basic function	Speed range	1: 100 (SVC)
Basic function	Speed stability accuracy	$\pm 0.5\%$ (SVC)
Basic function	Overload capacity	G Type: 60s for 150% of the rated current, 3s for 180% of the rated current. P Type: 60s for 120% of the rated current, 3s for 150% of the rated current.
Basic function	Torque boost	Auto-boost; Customized boost: 0.1%~30.0%
Basic function	V/F Curve	Straight-line V/F curve Multi-point V/F curve N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square)
Basic function	V/F separation	2 types: complete separation; half separation
Basic function	Ramp Mode	Straight-line ramp. Four groups of acceleration/deceleration time with the range of 0.00~6500.0s
Basic function	DC braking	DC braking frequency: 0.00Hz~Maximum frequency Braking time: 0.0s~36.0s Braking action current value: 0.0%~100.0%

Basic function	JOG control	JOG frequency range: 0.00Hz~50.00Hz. JOG acceleration/deceleration time: 0.0s~6500.0s.
Basic function	Simple PLC, Multiple preset speeds	It implements up to 16 speeds via the simple PLC function or combination of terminal states
Basic function	Onboard PID	It realizes process-controlled closed loop control system easily
Basic function	Auto voltage regulation (AVR)	It can keep constant output voltage automatically when the mains voltage changes
Basic function	Overvoltage/overcurrent stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over voltage/over current
Basic function	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
Basic function	Torque limit and control	It can limit the torque automatically and prevent frequent over current tripping during the running process. Torque control can be implemented in the FVC mode.
Individualized functions	High performance	Control of asynchronous motor is implemented through the high-performance current vector control technology
Individualized functions	Rapid dip ride through	The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time
Individualized functions	Support for multiple PG card	Support for differential input PG card, resolver PG card, rotating transformer PG card...
Individualized functions	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
Individualized functions	Timing control	Timing range: 0.0Min~6500.0Min
Individualized functions	Communication methods	RS-485
Running	Command source	Operation panel/Control terminals/Serial communication port You can perform switchover between these sources in various ways.
Running	Frequency source	There are ten frequency sources. Digital setting, analog voltage setting, analog current setting, pulse setting, serial port setting. You can perform switchover in various ways.

Running	Auxiliary frequency source	There are ten auxiliary frequency sources. It can implement fine tuning of auxiliary frequency and frequency synthesis.
Running	Input terminal	Standard: 4 digital input terminals (Below 5.5KW) /6 digital input terminals (Above 7.5KW); 1 analog input terminal (Below 5.5KW)/2 analog input terminals (Above 7.5KW); 1 voltage input (only supports 0~10V, for above 7.5KW), 1 voltage input(0~10V) or current input (4~20mA)
Running	Output terminal	1 High-speed pulse output terminal (Open-collector) (Above 3.7KW) 1 relay output terminal (Below 5.5KW)/2 relay output terminals (Above 7.5KW) 1 analog output terminal(3.7KW~5.5KW)/2 analog output terminal (Above 7.5KW), Support for 4~20mA current output or 0~10V voltage output
Display and operation panel	LED display	It displays the parameters
Display and operation panel	Key locking and function selection	It can lock the keys partially or completely and define the function range of some keys so as to prevent malfunction.
Display and operation panel	Protection mode	Motor short-circuit detection at power-on, input/output phase loss protection, over current protection, over voltage protection, under voltage protection, overheat protection and overload protection
Environment	Installation location	Indoor, free from direct sunlight, dust, corrosive gas, combustible gas, oil smoke, vapor, drip or salt.
Environment	Altitude	Lower than 1000m
Environment	Ambient temperature	-10°C to +40°C (derated for ambient temperatures between 40°C and 50°C)
Environment	Humidity	Less than 95%RH, without condensing
Environment	Vibration	Less than 5.9m/s ² (0.6g)
Environment	Degrees of Protection	IP20
Environment	Storage temperature	-20°C ~+ 60°C