

Frequency Inverter SJ300 Series

The intelligent inverter with full vector control

HITACHI
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- Capacity Range: 0.7-132 kW
 - Advanced Sensorless Vector Control (closed/open loop)
 - Starting Torque > 200 %
 - Full Torque at 0 Hz (open loop)
 - Internal Brake Chopper
 - Auto-Motor-Tuning
 - Quick Stop Function
 - User Macro Function
 - PID Control
 - Automatic Voltage Regulation
 - Motor Thermistor Input
 - RS485 and RS422 Interfaces
 - Fieldbus Interfaces for Profibus, DeviceNet, CANopen (optional)
 - Removable Digital Display
 - Global Standards: CE, UL, c-UL, C-Tick
- and many more

All features at a glance

Inverter SJ300		400 V - Series																						
		007 HFE	015 HFE	022 HFE	040 HFE	055 HFE	075 HFE	110 HFE	150 HFE	185 HFE	220 HFE	300 HFE	370 HFE	450 HFE	550 HFE	750 HFE	900 HFE	1100 HFE	1320 HFE					
Applicable motor (kW)		0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132					
Rated output current (A)		2.5	3.8	5.3	8.6	12	16	23	32	38	48	58	75	90	110	149	176	217	260					
Rated input voltage		3 ~ 380 ... 480 V, ±10 %, 50/60 Hz																						
Rated output voltage		3 ~ 380 ... 480 V (corresponding to input voltage)																						
Line filter FPFB or BTFB		013					032					064			80		115		125		220		260	
Output frequency range		0.1...400 Hz																						
Frequency accuracy (at 25 °C ±10 °C)		Analogue setting: ±0.2 %, digital setting: ±0.01 %																						
Frequency setting resolution		Analogue setting: Maximum frequency/4000, digital setting: 0.01 Hz																						
V/f characteristics		V/f (constant torque, reduced torque, free setting curve), sensorless vector control, closed loop vector																						
Overload capacity		150 % for 60 s, 200 % for 0.5 s																						
Acceleration/deceleration time		0.01 - 3600 sec. (linear/curve, accel./decel. selection), two stage accel./decel.																						
Starting torque		200 % at 0.5 Hz (SLV mode)														180 % at 0.5 Hz (SLV mode)								
Revolution accuracy		±0.5 % at vector control (option) from 5.0...50 Hz																						
Braking	Dynamic braking	Built-in BRD circuit								External dynamic braking unit (option)														
	Minimum resistor size in ohms	100	100	100	70	70	50	50	-	-	-	-	-	-	-	-	-	-	-					
	DC braking	Braking force, time and operating frequency																						
Inputs	Intelligent input terminals	8 inputs, NO or NC, PNP or NPN logic																						
	Analogue inputs	3 inputs, 0...10 V, 0/4...20 mA, -10...+10 V																						
Outputs	Digital outputs	5 outputs, type „open collector“, NO or NC, PNP or NPN logic																						
	Analogue outputs	3 outputs, 0...10 V, 4...20 mA; 1 PWM 0...10 V																						
	Relay output	Single changeover contact																						
PID loop operation		Air velocity, temperature etc.																						
Serial port		RS485, RS422																						
Remote control up and down		Integrated motorised potentiometer with/without setpoint storage																						
Bus systems (optional)		Profibus, LonWorks, DeviceNet																						
Standards		CE, UL, cUL, c-Tick																						
Thermal motor protection		Thermistor input PTC or NTC																						
Protection		Overcurrent, overvoltage, undervoltage, overload, extreme high temperature, ground fault protection at startup, electronic thermal overload protection etc.																						
Environmental conditions	Temperature / humidity	10...+50 °C temperature, 20...90 % humidity (non condensing)																						
	Vibration / Installation	5.9 m/s² SJ300-007...220 HFE, 2.94 m/s² SJ300-300...1320 HFE, 10...55 Hz, altitude 1000 m or less indoors, no corrosive gases or dust																						
CE		IEC/EN 61800-3 (industrial environment); IEC/EN 61800-3 (EN 55011 Group 1, Class B)																						
Options		Remote operator unit, Profibus, DeviceNet, LonWorks, Encoder Feedback, EMI filter																						
Protection class		IP20													IP00 (IP54 optional)									
Weight kg (approx.)		3.5					5.0			12			20		30		50		60			80		

SJ300 Series Dimensions

SJ300		007 HFE	015 HFE	022 HFE	040 HFE	055 HFE	075 HFE	110 HFE	150 HFE	185 HFE	220 HFE	300 HFE	370 HFE	450 HFE	550 HFE	750 HFE	900 HFE	1100 HFE	1320 HFE
		015 HFE	110 HFE																
		022 HFE																	
		037 HFE																	
		055 HFE																	
Width	mm	150	210	250	310	390	390	480											
Height	mm	255	260	390	540	550	700	740											
Depth	mm	140	170	190	195	250	270	270											

