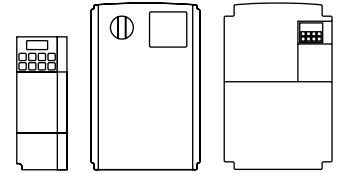


# SD300

Suitable with all process control needs.  
Reduces motor power consumption.  
Internal PLC for the control.





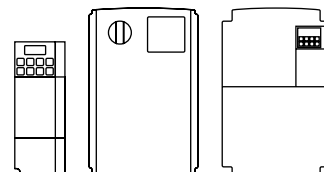
INPUT	Power ranges	0.4 kW - 2.2 kW 230 V - Single Phase 0.4 kW - 22 kW 230 V - 3-Phase 0.4 kW - 90 kW 400 V - 3-Phase	
	Voltage range	230 V: 200-240 V Single Phase/3-Phase (-15%/+10%) 400 V: 380-480 V 3-Phase (-15%/+10%)	
	EMC Filter	C2 <sup>[1]</sup> : 240 Vac C3: 240 Vac-400 Vac	
OUTPUT	Control method	V/f, Slip compensation, Sensorless vector, PMSM VC <sup>[2]</sup>	
	Frequency setting resolution	Digital command: 0.01 Hz / Analog command: 0.06 Hz (maximum frequency: 60 Hz)	
	Frequency accuracy	1% of the maximum output frequency	
	V/F pattern	Linear, Quadratic, User V/F	
	Overload capacity	150% for 60 sec. (Heavy duty) 120% for 60 sec. (Normal duty) <sup>[3]</sup> 200% for 4 sec. (Heavy duty)	
	Output frequency	0-400 Hz (Sensorless: 0-120 Hz)	
	Torque boost	Manual/Automatic torque boost	
OPERATION	Operation mode	Keypad / Terminal / Communication option selectable	
	Frequency setting	Analog : -10~10 V, 0~10 V, 4~20 mA / Digital : Keypad, Pulse train input	
	Operation function	PID control, 3-wire operation, Frequency limit, Second function, Anti-forward and reverse direction rotation, Speed search, Power braking, Leakage reduction, Up-down operation, DC braking, Frequency jump, Slip compensation, Automatic restart, Automatic tuning, Energy buffering, Flux braking, Fire Mode	
		NPN (Sink) / PNP (Source) selectable	
	Input	Multi-function Terminal IP66 degree: 5 inputs IP20 degree: 7 inputs	Function: Forward run, Reverse run, Reset, External trip, Emergency stop, Jog operation, Multi-step frequency-high, middle, low, Multi-step acceleration/ deceleration-high, middle, low, DC braking at stop, 2 <sup>nd</sup> motor select, Frequency up/down, 3-wire operation, Change into normal operation during PID operation, Change into main body operation during option operation, Analog command frequency fixing, Acceleration/deceleration stop etc. Selectable
		Analog input	V1: -10~10 V, selectable V2: 0~10 V/I2 4~20 mA
		Pulse train	0~32 kHz, Low level: 0~2.5 V, High level: 3.5~12 V
	Output	Open collector terminal	Fault output and drive operation
		Multi-function relay	status output
		Analog output	Selectable 0~12 Vdc/0~24 mA Frequency, Output current, Output voltage, DC bus voltage etc. selectable
Pulse train		Maximum 32 kHz, 10~12 V	
PROTECTIVE FUNCTION	Trip	Over current trip, External signal trip, ARM short circuit current trip, Over heat trip, Ground trip, Motor over heat trip, I/O board link trip, No motor trip, Parameter writing trip, Emergency stop trip, Command loss trip, External memory error, CPU watchdog trip, Motor normal load trip, Over voltage trip, Temperature sensor trip, Drive over heat, Option trip, Output imaging trip, Drive overload trip, Fan trip, Pre-PID operation failure, External break trip, Low voltage trip during operation, Low voltage trip, Safety A(B) trip, Analog input error, Motor overload trip	
	Alarm	Command loss trip alarm, overload alarm, normal load alarm, drive overload alarm, fan operation alarm, resistance braking rate alarm, number of corrections on rotor tuning error	
	Momentary power loss	HD below 15 ms (ND below 8 ms): Continuous operation (To be within rated input voltage, rated output) HD above 15 ms (ND above 8 ms): Automatic restart operation enable	
ENVIRONMENT	Cooling type	Forced fan cooling structure	
	Protection degree	IP20/UL Open (Default), UL Enclosed Type 1 (Option), IP66/NEMA 4X (Option)	
	Ambient temperature	IP20: HD: -10~50 °C(14~122 °F) ND: -10~40 °C(14~104 °F) [However, recommended to use load below 80% when using at 50 °C under light load]	
		IP66: HD: -10~40 °C(14~104 °F)	
	Storage temperature	-20~65 °C (-4~149 °F)	
	Humidity	Relative humidity below 90% RH (non condensing)	
	Altitude, vibration	Below 1000 m, below 9.8 m/sec <sup>2</sup> (1G)	
	Location	No corrosive gas, flammable gas, oil mist and dust etc. indoors (Pollution Degree 3 Env.)	
	Pressure	70~106 kPa	
	REGULATIONS	Global certification	CE, UL, cUL, RoHS
PCB		3C2 Conformal coating	

## NOTES

[1] The RFI filter option is required.

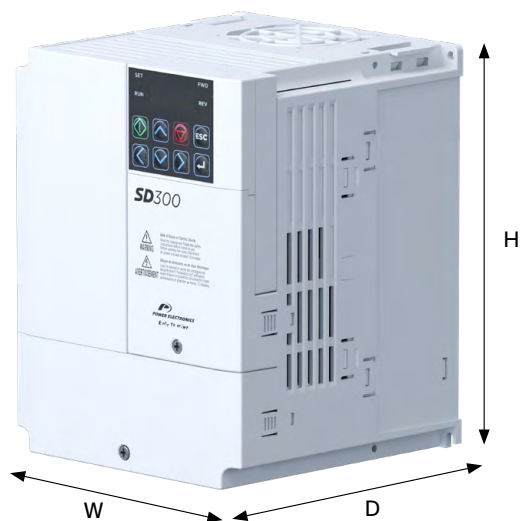
[2] Please consult Power Electronics before the installation with these kind of motors.

[3] Only available with IP20 protection degree.



## DIMENSIONS

Frame 3



Frame 7



Frame	IP	Width W (mm)	Depth D (mm)	Height H (mm)	Weight (kg)	
1N	IP20	68	123	128	0.86	
2N		68	128	128	0.88	
3N		100	130	128	1.3	
4N		100	145	128	1.5	
5N		140	145	128	2.2	
1F	IP20	68	130	180	1.2	
2F		100	140	180	1.8	
3F		140	140	180	2.2	
4	IP20	160	140	232	3.3	
5		180	163	290	4.8	
6		220	187	350	7.5	
7		275	284	450	26	
8		325	284	510	35	
9		325	309	550	43	
1I		IP66	180	188	257	3.7
2I			220	215	259	5.3
3I			250	241	328	9
4I	260		260	400	9.6	
5I	300		264	460	12.4	

## NOTES