

## L300P SERIES

Inverter



### Technical Data

#### V/f Control Inverter with Advanced Functions

- Auto-Energy Saving
- PID Control
- Motor Synchronization
- Quick-Stop Function
- Motor Potentiometer
- User Macro Function
- RS485 Interface
- Global Standards: CE, UL, c-UL, C-tick and many more.

#### For standard V/f-Control applications

- Fans and Pumps
- Heating, Ventilation, Air Conditioning
- Food/Beverage Processing



Easy integration into many standard fieldbus systems.

Volume reduced by up to 50% (compared with J300 Series inverters).



## Specifications

Item	400V/3-phase												
Model Name	110 HFE	150 HFE	185 HFE	220 HFE	300 HFE	370 HFE	450 HFE	550 HFE	750 HFE	900 HFE	1100 HFE	1320 HFE	
Enclosure	IP 20												
Maximum applicable motor (4p.kW) (CT)	11	15	18.5	22	30	37	45	55	75	90	110	132	
Rated input voltage	3 phase (3 wires) 380 - 460V (±10%) / 50 Hz, 60 Hz												
Rated output voltage	380 - 480V (according to supply voltage)												
Rated output current [A]	22	29	37	43	57	70	85	105	135	160	195	230	
Control method	V/f PWM (sine wave weighted)												
Output frequency range	0.1 - 400Hz												
Frequency accuracy	Digital: ± 0.01 % of maximum frequency, Analogue: ± 0.2 % (at 25 ± 10°C) of maximum frequency												
Frequency resolution	Digital setting: 0.01 Hz, Analogue setting: (Maximum frequency)/4000 (0 terminal: 12 bit/0 -10V, 11 bit/0-5V, 02 terminal: 12 bit/-10 - +10V, 11 bit/-5 -+5V)												
V/f characteristics	Constant torque and reduced torque of V/f control, Base frequency adjustable from 30 Hz up to 400 Hz												
Overload capacity	120%/60 sec, 150%/0.5 sec												
Acceleration/Deceleration time	0.01 ~3,600.0 sec (Linear, curve selection)												
Braking	Regenerative brake		BRD circuit integrated (optional resistor)			BRD unit (option)							
	DC injection brake		Performs at start or under set frequency at deceleration or external request (braking force, time, operate frequency)										
Input	Frequency set	Standard operator	Set by UP key/DWN key										
		External signal	DC 0~+10V, -10 ~+10V (input impedance 10 k ohm), 4~20mA (input impedance 100 ohm)										
		External port	RS 485, RS 422										
	FW-RV RUN-STOP	Standard operator	Run key/Stop key (change FW/RV by function command)										
		External signal	FWD RUN/STOP (1a, 1b selectable, 3-wire input possible)										
		External port	RS 485, RS 422										
Intelligent input		5 terminals assign (RV, CF1~CF 4, JG, DB, SET, 2CH, FRS, EXT, USP, CS, SFT, AT, RS, STA, STP, F/R, PID, PIDC, UP, DWN, UDC, SF1~SF7, LOAD, NON)											
PTC input		One specific terminal											
Output	Intelligent output		2 relay (1a) outputs and 1 relay (1c) output. Select from (RUN, FA1, OL, FA2, AL, OD, FA3, IP, UV)										
	Intelligent monitor output		analogue voltage, analogue current, pulse train output terminal (A-F, D-F (*n pulse line output only), A, P, V)										
Features	Main Features		V/f free setting (5 points), Frequency limitation (Upper & Lower), Frequency jump, 16 Multi-speed, 2nd Acc & Dec, Curve Acc & Dec, Manual torque boost level changeover point, Free run stop, UP DOWN function, PID, Intelligent input & output, 3 wire input 2nd & 3rd function, Energy saving, Analogue meter adjustment, Start frequency set, Carrier frequency, Electronic thermal free setting, External start & end frequency and ratio, Retry, Restart after instantaneous power failure, Reduced voltage start, Jogging, F-stop, DC injection braking, Overload restriction, Software lock, Initial setting, External trip, Analogue change over, USP function										
	Control Features		AVR function										
	Display Monitor		Output frequency, Output current, Converted value of frequency, Trip history, I/O terminal condition, Input power, Output voltage										
Carrier Frequency Range		0.5 ~ 12 kHz											
Protective Features		OC, OV, UV, OL (electronic thermal), Overheat, Ground fault at start, Instantaneous power failure, USP error, Phase failure detection, Overload detection for BRD resistor, CT error, External trip, Option error, Communication error											
Applicable operator		New digital operator (4 digits LED) <standard> / New DRW (6 multi-language: English, German, French, Spanish, Italian, Portuguese) <option>											
Condition	Ambient/Storage temperature/Humidity		-10 ~ 50°C; > 40°C Current derating / -20 ~ 65°C / 25 ~ 90% RH (No condensation)										
	Vibration		5.9 m/s <sup>2</sup> (0.6G) 10 ~ 55 Hz										
	Installation		Less than 1000m of altitude, no corrosive gas or dust										
Colour		Blue						Grey					
Options		EMC Filter, Input/Output Reactors, DC-Reactors, Braking Choppers (≥18.5 kW), Braking Resistors, Communication Cables, Sine Wave Filter											

## Dimensions

Type		L300P-110 HFE	L300P-150 HFE	L300P-185 HFE	L300P-220 HFE	L300P-300 HFE	L300P-370 HFE	L300P-450 HFE	L300P-550 HFE	L300P-750 HFE	L300P-900 HFE	L300P-1100 HFE	L300P-1320 HFE
Width	mm	210	210	250	250	250	310	390	390	390	390	390	480
Height	mm	260	260	390	390	390	540	550	550	550	700	700	740
Depth	mm	178,5	178,5	198,5	198,5	198,5	203,5	258,5	258,5	258,5	278,5	278,5	278,5

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