

## 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, CTick 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).



## All features at a glance

Item	400V/3-phase																
Model Name: L300P -	015 HFE2	022 HFE2	040 HFE2	055 HFE2	075 HFE2	110 HFE2	150 HFE2	185 HFE2	220 HFE2	300 HFE2	370 HFE2	450 HFE2	550 HFE2	750 HFE2	900 HFE2	1100 HFE2	1320 HFE2
Enclosure	IP 20														IP 00		
Maximum applicable motor (4p.kW) (CT)	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132
Rated input voltage	3 phase (3 wires) 380 - 460 V (±10%) / 50 Hz, 60 Hz																
Rated output voltage	380 - 480V (according to supply voltage)																
Rated output current [A]	3.8	5.3	8.6	12	16	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 - 10 V, 11 bit/0-5 V, 02 terminal: 12 bit/-10 - +10 V, 11 bit/-5 - +5 V)																
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/DOWN 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, E/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														0.5 ~ 8 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	Digital operator (4 digits LED) <standard> / 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> (0.6 G) 10 ~ 55 Hz									2.94 m/s <sup>2</sup> (0.3 G) 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, Buskommunikation (Profibus, LonWorks, DeviceNet, CanOpen)																

## Dimensions

Type	L300P-015 HFE2	L300P-022 HFE2	L300P-040 HFE2	L300P-055 HFE2	L300P-075 HFE2	L300P-110 HFE2	L300P-150 HFE2	L300P-185 HFE2	L300P-220 HFE2	L300P-300 HFE2	L300P-370 HFE2	L300P-450 HFE2	L300P-550 HFE2	L300P-750 HFE2	L300P-900 HFE2	L300P-1100 HFE2	L300P-1320 HFE2
Width mm	150	150	150	150	210	210	210	250	250	250	310	390	390	390	390	390	480
Height mm	255	255	255	255	260	260	260	390	390	390	540	550	550	550	700	700	740
Depth mm	140	140	140	140	170	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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