

# Frequency Inverter L200 Series

The Economical Choice for a Broad Range of Tasks

**HITACHI**  
Inspire the Next



- Capacity Range: 0.2-7.5 kW
  - PID Control
  - Automatic Voltage Regulation
  - Motor Synchronization
  - Motor Potentiometer
  - Motor Thermistor Input
  - RS485/Modbus Integrated
  - Fieldbus Interfaces for Profibus, DeviceNet, CANopen (optional)
  - Digital Display with Potentiometer
  - Integrated EMC-Filter
  - Global Standards: CE, UL, c-UL, C-Tick
- and many more

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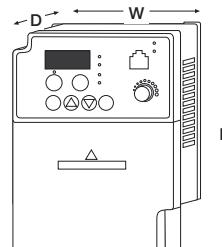
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## All features at a glance

Inverter L200			200V-Series							400V-Series																									
			002 NFEF2	004 NFEF2	005 NFEF2	007 NFEF2	011 NFEF2	015 NFEF2	022 NFEF2	004 HFEF2	007 HFEF2	015 HFEF2	022 HFEF2	030 HFEF2	040 HFEF2	055 HFEF2	075 HFEF2																		
Applicable motor (kW)			0.2	0.4	0.55	0.75	1.1	1.5	2.2	0.4	0.75	1.5	2.2	3.0	4.0	5.5	7.5																		
Rated output current (A)			1.4	2.6	3.0	4.0	5.0	7.1	10.0	1.5	2.5	3.8	5.5	7.8	8.6	13.0	16.0																		
Input supply phase																	Three phase																		
Rated input voltage			200VAC-240VAC ±10% 50/60Hz ±5%				380VAC -10% ~ 460VAC +10% 50/60Hz ±5%				Three Phase 360 ~ 460VAC (corresponds to input voltage)																								
Rated output voltage			Three Phase 200 ~ 240VAC (corresponds to input voltage)							Three Phase 360 ~ 460VAC (corresponds to input voltage)																									
Output frequency range			0.5 ~ 400 Hz																																
Frequency accuracy (at 25 °C ±0 °C)			Digital command: ±0.01 % of maximum frequency (Analogue command: ±0.1 % of maximum frequency)																																
Frequency setting resolution			Digital setting: 0.1 Hz Analogue setting: maximum frequency / 1000																																
V/f characteristic			Constant or reduced torque																																
Overload capacity (current)			150 % for 60 seconds (once every 10 minutes)																																
Acceleration/deceleration time			0.01 ~ 3000 s in selectable linear and non-linear mode (second acceleration/deceleration usable)																																
Braking torque	Dynamic braking, feedback to capacitor (≥60Hz)	approx. 50 % ≤ 60 Hz	approx. 100 % ≤ 50 Hz	approx. 50 %	approx. 20 %	approx. 60 %				approx. 20 %																									
	DC injection braking	Variable operating frequency, time and braking force can be set																																	
Inputs	Frequency setting	Digital operator	Settings using keys ☰ or potentiometer																																
		External signals	0-10 VDC (input impedance 10k ohm) 4-20mA (input impedance 250 ohm) potentiometer 1k-2k ohm, 2 W																																
	Forward/reverse	Digital operator	Via keys RUN (for start) and STOP/RESET (for stop) (Default setting: forward run)																																
	run (Start/Stop)	External signals	Forward run/stop Reverse run/stop																																
	Intelligent input terminals programmable as, i.e.	FW: Forward run start/stop RV: Reverse run start/stop CF1-CF4: Multistage speed JG: Jogging command AT: Analogue current input selection 2CH: 2nd accel./decel. time FRS: Free run stop EXT: External trip USP: USP function RS: Reset SFT: Software lock PTC: Thermal protection																																	
Outputs	Intelligent output terminals programmable as, i.e.	FA1/FA2: Frequency arrival signal RUN: Motor running signal OL: Overload signal OD: Deviation signal at PID control AL: Alarm signal Dc, FBV, NDc, LOG, OPDc																																	
	Frequency and current monitoring	0-10 VDC, 8 bit																																	
PID loop operation		Air velocity, temperatur etc.																																	
Other functions		Automatic voltage regulation, analog input calculate function, automatic carrier frequency reduction, frequency jump, output frequency display, trip history monitoring, carrier frequency setting, PID control, automatic torque boost and many more																																	
Standards		CE, UL, cUL, c-Tick																																	
Thermal motor protection		Thermistor input PTC (intelligent input 5)																																	
Protection functions		Overcurrent, overvoltage, undervoltage, electronic thermal, temperature abnormality, ground fault at starting, overload limit																																	
Environmental conditions	Ambient temperature Storage temperature and humidity	-10 ~ 50 °C; > 40 °C current derating -25 ~ 60 °C 20 ~ 90 % RH (no dew condensation)																																	
Options		Remote operator, copy unit, cable for digital operator, reactor for improving power factor, noise filter, ProDrive software																																	
Protection class		IP20																																	
Weight (approx.) in kg		0.7	0.85			1.8			1.10	1.10	1.80			1.4	1.8	1.9	3.8	5.7																	

## L200 Series Dimensions

L200	002 NFEF-2	004 NFEF-2	005 NFEF-2	007 NFEF-2 011 NFEF-2	015 NFEF-2 022 NFEF-2	004 HFEF-2	007 HFEF-2 015 HFEF-2 022 HFEF-2 030 HFEF-2 040 HFEF-2	055 HFEF-2 075 HFEF-2
Width	mm	80	80	80	110	110	110	180
Height	mm	140	140	140	155	155	155	250
Depth	mm	100	114	137	122	162	136	163



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