

# 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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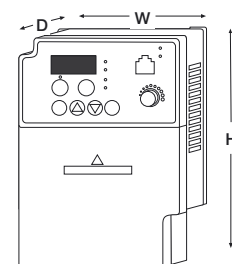
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## All features at a glance

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		Single phase / Three phase							Three phase							
Rated input voltage		200VAC-240VAC ±10% 50/60Hz ±5%							380VAC -10% ~ 460VAC +10% 50/60Hz ±5%							
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 $\odot$ $\ominus$ 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 run (Start/Stop)	Digital operator Via keys RUN (for start) and STOP/RESET (for stop) (Default setting: forward run)														
	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	-10 ~ 50 °C; > 40 °C current derating														
	Storage temperature	-25 ~ 60 °C														
	and humidity	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			1.4	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	110	180
Height	mm	140	140	140	155	155	155	155	250
Depth	mm	100	114	137	122	162	136	163	163



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