

Frequency Inverters
WJ-C1 Series

HITACHI



EtherCAT®

Modbus

PROFI®
BUS

PROFI®
NET

Automation Solutions by Hitachi

WJ-C1 - Compact Frequency Inverter

Leading Innovation in Engineering

Hitachi invests in research and development across various engineering fields, ensuring our products leverage cutting-edge technology and innovative solutions. Our dedicated teams continuously enhance and refine our offerings, integrating advanced technologies in a practical and user-friendly manner.

By utilizing proprietary Hitachi components, we guarantee high quality, exceptional reliability, and excellent value for money.

Get to know our new the WJ-C1 Series: Elevating Performance in Compact Design

Introducing our C1 Series—a remarkable advancement of our proven WJ200 series of compact inverters. Engineered with precision and enhanced with cutting-edge technology, the C1 achieves exceptional performance and intelligent control, making it the ideal choice for demanding industrial applications.

Whether you're driving pumps, fans, conveyors, or complex machinery, the C1 provides the control and versatility needed to optimize your operations.

Key Features:

- **High-Performance Drive:** Built to handle rigorous industrial environments, this inverter series offers improved torque and speed control, ensuring smooth operation even under heavy loads.
- **Smart Control:** With advanced algorithms and real-time monitoring, it adapts to varying operational demands, maximizing energy efficiency and reducing downtime.
- **Compact and Robust:** Designed for space-constrained environments, this series combines a compact footprint with rugged construction, ensuring durability and ease of installation.



Move
forward to
Greener & Smarter
Society



Applicable motor (kW)	0.2	0.4	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22
1-phase 200V (ND rating)	●	●	●	●	●								
3-phase 400V (ND rating)		●	●	●	●	●	●	●	●	●	●	●	●

Cold Plate Model

Our Cold Plate Model is now available up to 4.0 kW. Engineered for space-saving, high-density mounting, this model is ideal for applications where compactness and efficiency are paramount.

Designed without a cooling fin or fan, it requires mounting on a dedicated cooling surface, offering flexibility in heat management and system integration.

This design not only reduces the overall footprint but also allows for customized thermal solutions tailored to your needs.



Key Advantages

■ **Compact Efficiency:**
High-density mounting for space-constrained environments.

■ **Custom Cooling:**
Requires mounting on a cooling surface for optimal thermal management.

■ **Versatile Applications:**
Ideal for systems needing compactness and efficient cooling.



Flexible Adaptation

NEW

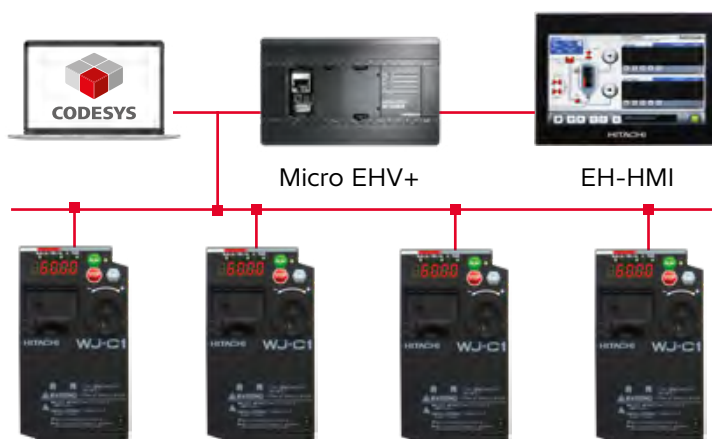
Two Selectable Modes

The C1 offers two parameter modes to suit diverse user needs:

- **Basic Mode:** Retains the same parameter codes as the previous WJ200 model, making it ideal for customers familiar with WJ200.
- **Extended Mode:** Features advanced parameter codes from our premium SJ-P1 model, providing additional functionalities beyond Basic Mode.

	Basic Mode	Extended Mode
Parameter code		
Switchable Analog Input/Output	-	✓
Simulation Function	-	✓
Unsteady detection	-	✓
Power module diagnosis	-	✓
Trace function	-	✓
Speed compensation	-	✓
Positioning function	-	✓

Fieldbus communication PLC - WJ-C1



Seamless Integration with Network Options

The C1 Series is designed for effortless integration into diverse network environments, featuring optional fieldbus modules known from the WJ200-Series.

- RS485-Modbus (Built-in)
- EtherCAT
- Profibus-DP
- PROFINET

These connectivity options ensure that the C1 integrates smoothly with existing systems and enhances network versatility.



Side-by-side installation

Our C1 Series is engineered for maximum space efficiency, enabling side-by-side installation with minimal gaps.

This compact design reduces panel space requirements, creating a streamlined and efficient system layout.

Key Benefits

- Minimized Panel Space
- Efficient, Compact Design



*Ambient temperature 40 °C max., individual mounting.

Selectable Analog I/O Range

- **2 Analog Inputs / 1 Analog Output:**
Choose between voltage (0 to 10V) and current (0/4 to 20mA) via parameter settings.

- **1 Pulse Output:**
Configure as either analog voltage (0 to 10V) or digital pulse (up to 32kHz) through parameter settings.

Trip Avoidance Functions

The C1 Series comes standard with trip avoidance functions, including:

- Minimum Time Deceleration
- Over-Current Suppression
- DC Bus AVR



These functions boost product robustness and prevent unnecessary tripping. Additionally, the improved torque and current limiting functions provide load restriction, safeguarding your machinery and equipment.

ProDriveNext Software

Simplified, Intuitive Programming

ProDrive Next is designed for easy, user-friendly operation with features that streamline your workflow:

- **Online Monitoring:** Track all parameters and I/O terminal status in real-time.
- **Parameter Conversion:** Easily convert parameters between different inverter series.
- **Quick Downloads/Uploads:** Accelerate parameter download and upload processes.
- **High-Resolution Oscilloscope:** Includes recording capability for detailed analysis.

Easy operation

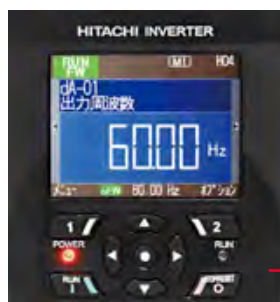
- LED control
- Remote Operator
- Micro B USB port

VOP LCD operator

- 12 languages available
- 5-line LCD operator
- Real time clock built-in
- Two-color backlight that distinguish trip status

Password function

To ensure parameters remain consistent and to restrict access to some or all parameters.



VOP Operator



USB port





NEW

24VDC Power Supply

The C1 supports operation with an external 24VDC power supply, allowing parameter configuration without needing a power mains connection (e.g., 3-phase 400V). This feature simplifies installation and reduces setup time.

- **Flexible Operation:** Connect to a PLC and use with ProDriveNext PC configuration software for enhanced control.

Simulation Function

This function allows you to test all inverter features without powering the actual motor. Users can simulate output current using parameters, analog inputs, or external control devices (e.g., PLC).

- **Virtual Testing:** Verify system operation, including alarm responses, by running the motor virtually.
- **Flexible Control:** Adjust simulated output with various inputs to ensure comprehensive system validation.

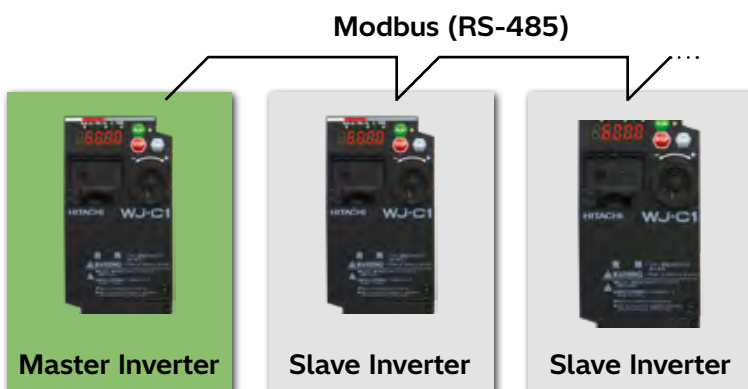
Ease of Wiring

The C1 features screw-less, spring-type terminals for control circuits, accommodating both solid and stranded wires with ferrules. This design simplifies wiring and ensures secure connections.

- **Tool-Free Connection:** Spring-type terminals for quick and easy installation.
- **Versatile Compatibility:** Suitable for solid and stranded wires with ferrules.



Peer-to-Peer Communication



- **Seamless Integration:** Built-in RS485 port for efficient communication between inverters.
- **Automatic Synchronization:** Master inverter's frequency set point auto-syncs with slave inverter(s) for consistent speed.

Easy parameter setting with JOG dial

NEW

Flexible Display and Easy Parameter Settings with new JOG dial

The C1 Series makes parameter management simple and efficient with its user-friendly Jog Dial and flexible display options:

- **Automatic Display Reset:** The display automatically returns to the initial parameter screen 10 minutes after the last key operation, ensuring a consistent view.
- **Customizable Display Limitation:** Limit the display to show only the parameters you need, keeping your interface focused and uncluttered.
- **Dual Monitor Function:** Set and monitor two different parameters simultaneously for enhanced control and visibility.



Easy Parameter Settings

- A modern Jog Dial comes as a standard feature in the C1 Series module.
- The Jog Dial is easy to use, designed for smooth and efficient parameter setting.
- Adjust parameters seamlessly with a simple turn of the dial.



Operator Keypads

RUN
STOP/RESET
ESC

RUN key enable
LED (GREEN)

SET

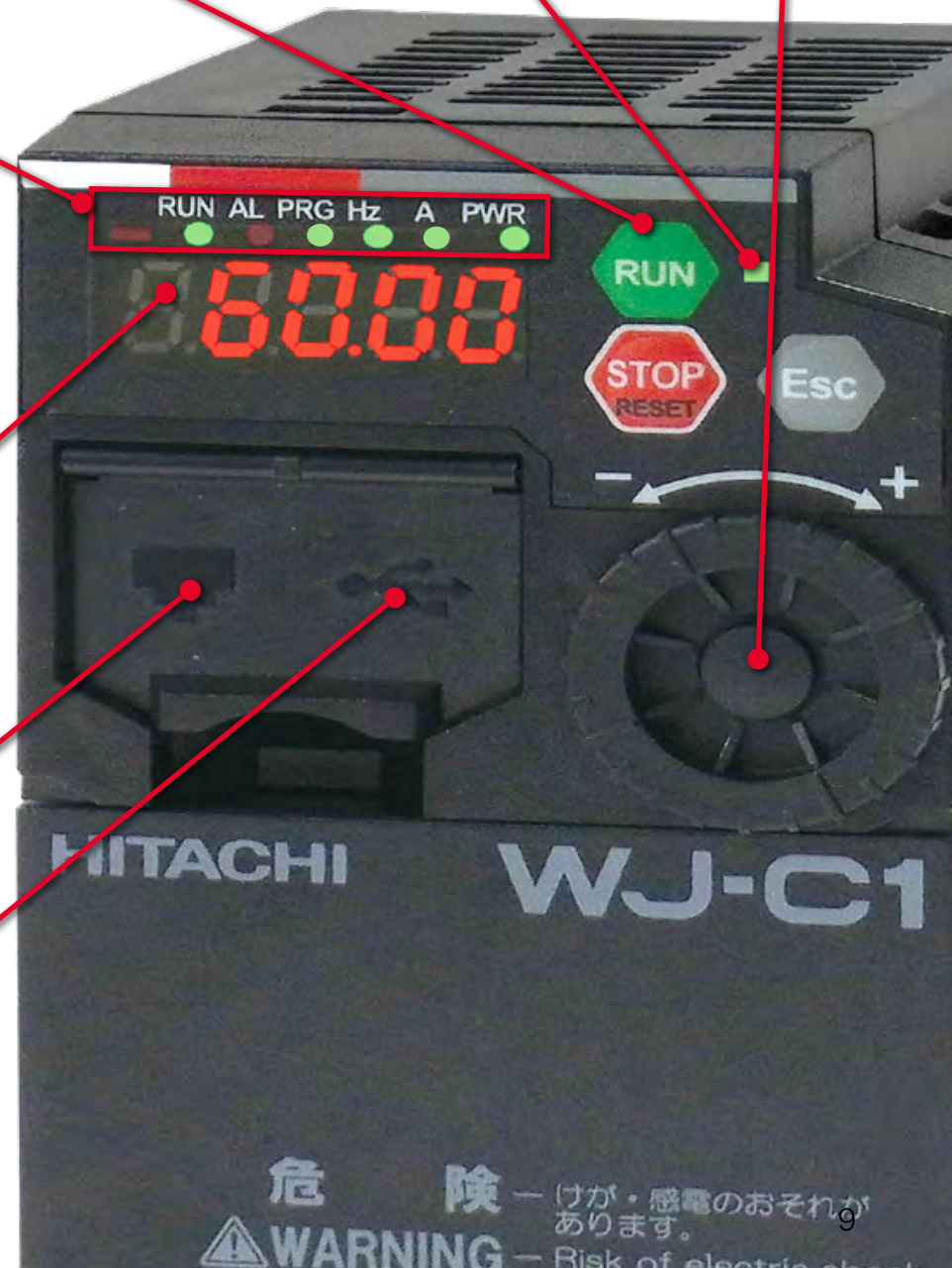
LED for unit and status

MINUS (RED)
RUN (GREEN)
AL (RED)
PRG (GREEN)
Hz (GREEN)
A (GREEN)
PWR (GREEN)

7 segments LED
display (5 digit)

RJ45 Connector for
remote operator

USB (Micro B)



危険
WARNING
— けが・感電のおそれがあります。
— Risk of electric shock

Safety & Safe Operation Improvement

UPDATE

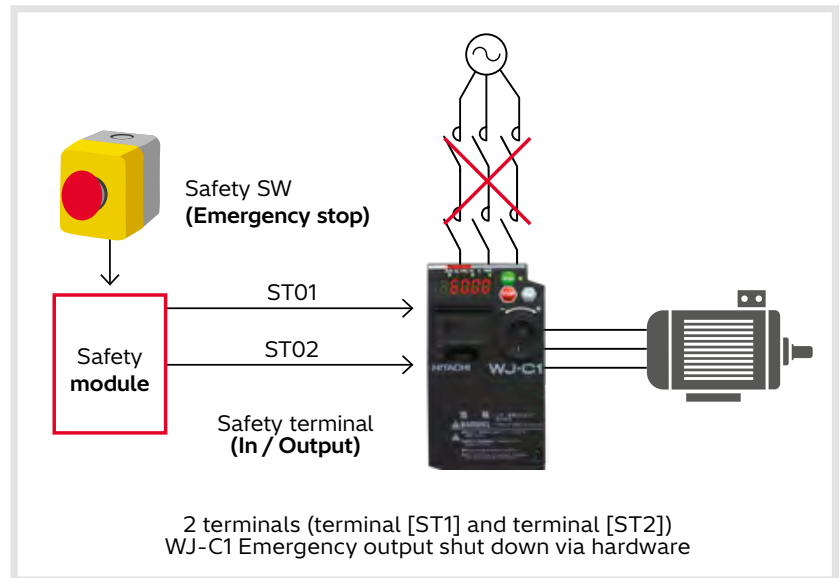
Uncompromised Safety

Our C1 Series is engineered to meet the highest safety standards, fully compliant with the European Machinery Directive. Designed for reliability, the inverter features a hardware-based shutdown that bypasses the CPU, ensuring a reliable safe stop function.

- **Safety Certified:** Cat.3 PLe, SIL3, and STO compliance as standard.

Trust the C1 Series for robust safety performance that meets stringent industrial requirements.

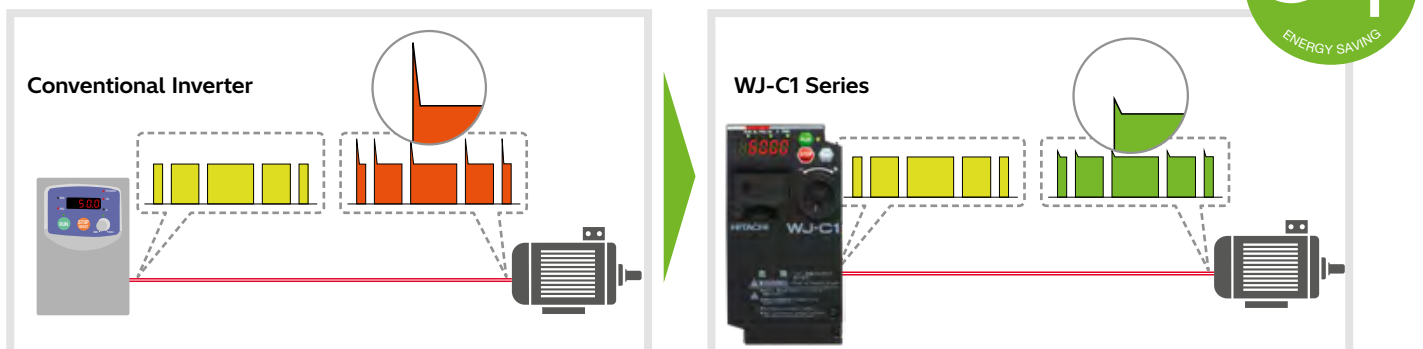
(IEC61508, IEC61800-5-2:SIL3 ISO13849-1: Cat.3 PLe IEC60204-1:Stop Cat.0)



Micro Surge Voltage Suppression Function

Hitachi's proprietary PWM control method effectively limits motor terminal voltage to less than twice the inverter's DC bus voltage, providing reliable protection against micro surge voltages.

Save your Motor and Environment



Smart Drive

Simplify Your Control with Easy Sequence Function [EzSQ]

At Hitachi, we understand the importance of streamlined processes.

That's why we developed our EzSQ software, allowing you to perform logic operations directly within the inverter — no need for external relays or a PLC.

Simply compile your programs on a PC and download them to the drive.



Faster cycle time compared to WJ200 - New debug functions added

Optimize Energy Usage with EzSQ: Spinning Machine Example

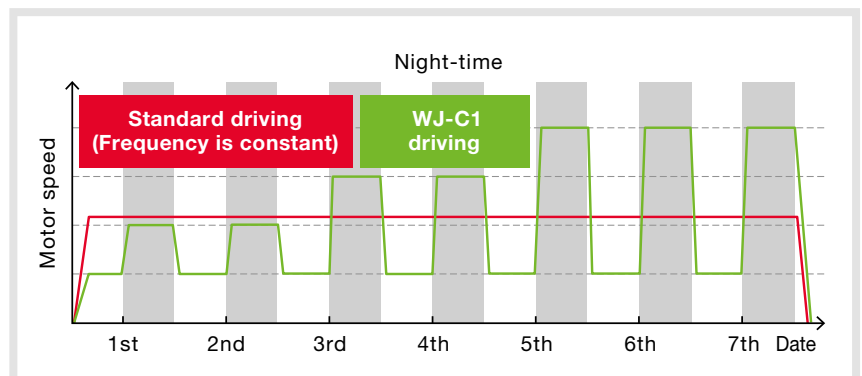
EzSQ lets you fine-tune energy consumption on a spinning machine for optimal efficiency.

■ Daytime:

Automatically reduce motor speed during peak hours to lower energy demand and cut costs.

■ Night-time:

Increase motor speed during off-peak hours to take advantage of lower power rates while maintaining average productivity.



Control Panel with Standard Inverter

Control Panel with WJ-C1 using EzSQ

For Stable Operation



Protect Your Equipment with Advanced Monitoring

Designed with internal data detection, the C1 Series supports predictive maintenance without the need for additional external measurement devices.

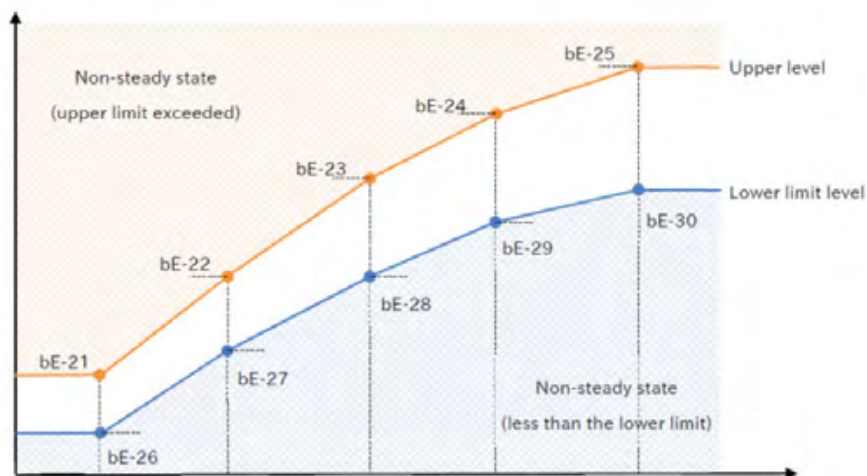
- **Predictive Alerts:** The inverter issues alarms when monitored data exceeds user-defined thresholds.
- **Customizable Monitoring:** Set specific data parameters and limits to identify potential issues, such as a clogged impeller or a broken belt.

With the C1 Series, you can proactively address equipment issues, enhancing reliability and minimizing downtime.



This advanced function safeguards the entire system, minimizing downtime and reducing the Total Cost of Ownership (TCO).

Detect Level(%) (Target: bE-02 specify monitor)



Exceed the customer specific limits

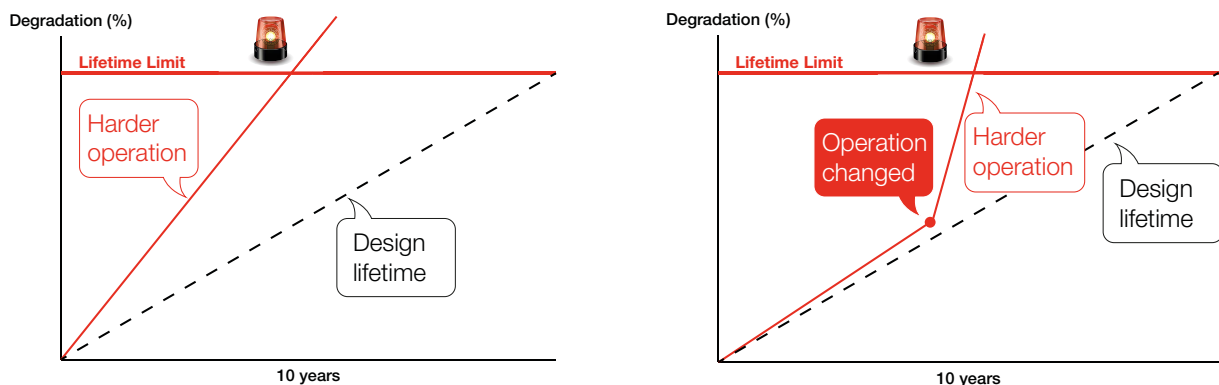
NEW

Next-Level Internal Diagnosis

Taking internal diagnostics to the next level, the C1 Series monitors not only cooling fan and capacitor lifetimes but also assesses the degradation of power modules, including IGBT and diode modules.

- **Real-Time Monitoring:** Diagnosis is based on actual operating conditions, providing timely alerts for necessary maintenance even when conditions fluctuate.
- **Proactive Maintenance:** Advanced lifetime assessment helps prevent unexpected system downtime, ensuring continuous operation and reliability in critical production processes.

You gain advanced insights into your system's health, reducing maintenance surprises and safeguarding operational efficiency.



Intelligent diagnosis in accordance with actual operation

Trace Function

Our C1 Series features a sophisticated trace function that visualizes sampling data for monitor parameters with exceptional accuracy.

- **High-Resolution Sampling:** Capture data with a high accuracy of 0.2 ms, significantly faster than the 100 ms accuracy provided by the ProDriveNext software's standard monitor function.
- **Enhanced Diagnostics:** Ideal for initial system configuration and troubleshooting, the trace function provides detailed insights to optimize performance and resolve issues efficiently.



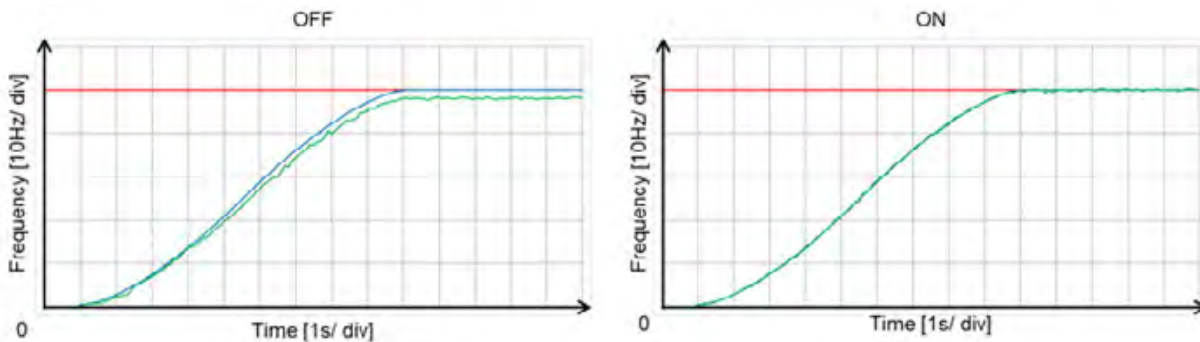


High Performance Drive

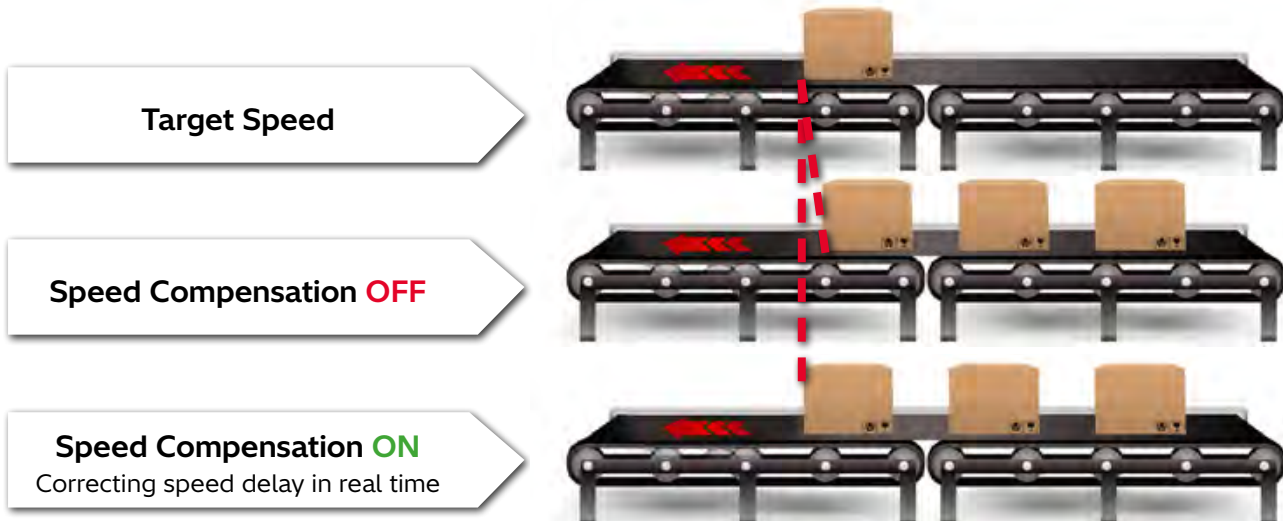
Sensorless Vector Control (SLV)

The C1 Series provides advanced speed control compensation, not only for V/f control but also for sensorless vector control (SLV).

- **Real-Time Adjustment:** By utilizing encoder feedback, the C1 continuously calculates and compensates for any deviation between the reference speed and the actual motor speed, ensuring consistent drive performance.
- **Stable Speed Control:** This function enables more stable speed control, regardless of motor load, enhancing overall system reliability.



Actual Speed Reference when Speed Compensation is ON

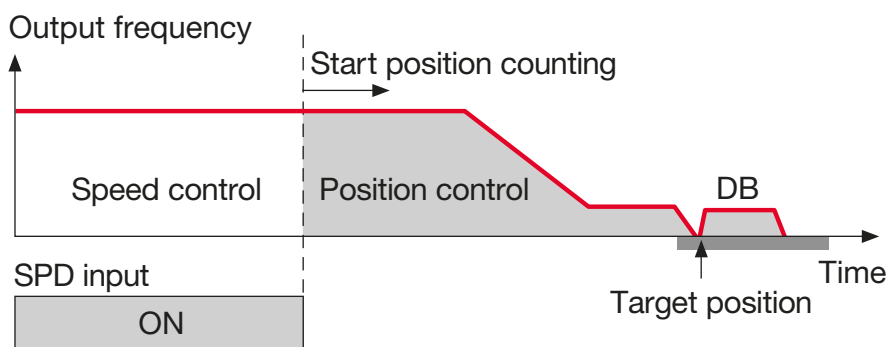




Precise Positioning Control

Advanced positioning control is available, providing up to 32 kHz pulse rate on both A and B-phase signals from encoder feedback.

- **Enhanced Accuracy:** In Extended Mode, the C1 also supports Z-phase feedback, enabling more precise control for returning to the home position and reaching target positions, similar to a servo system.
- **Closed-Loop Control:** By utilizing this positioning function, closed-loop vector control is achieved, ensuring accurate and reliable performance.



Sophisticated Control

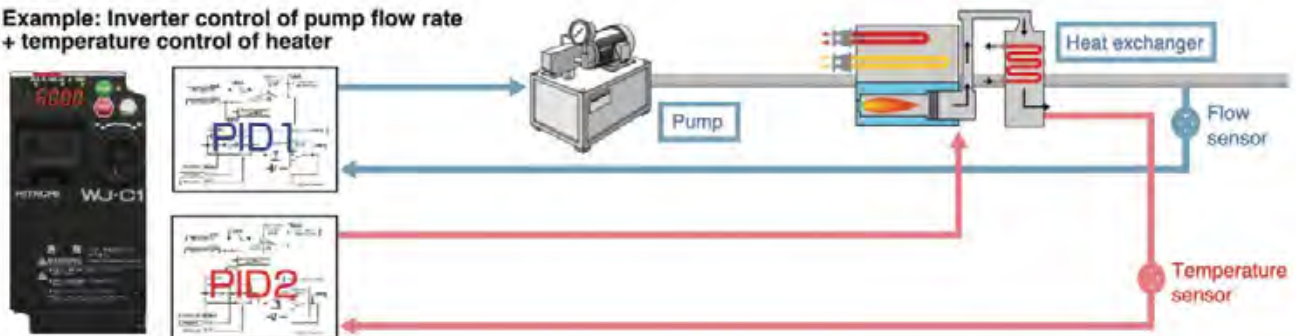
Versatile Multi PID Control

Equipped with two independent PID controllers, this series enables for versatile and integrated control.

- **Dual PID Functionality:** The first PID controller manages motor operation, for example, by using data from a flow rate meter. Simultaneously, the second PID controller handles an external device like a temperature sensor or vibration meter.
- **Integrated Control:** The C1 can independently control both the motor and external devices without the need for a host device, e.g. PLC, enabling complex control scenarios with a single, integrated solution.

With the C1 Series, you achieve seamless and efficient control, simplifying your system architecture while enhancing functionality.

Example: Inverter control of pump flow rate + temperature control of heater





Dual Rating Flexibility

Engineered to handle both heavy and normal duty applications, the C1 Series is highly versatile.

Its compact design supports a one-frame-size reduction, optimizing space and performance for different operational needs.



Heavy duty: Conveyor, Lift Hoist (ex.)

7,5kW
 overload capacity:
 150 %, 60 sec



Normal duty: ex. Fan, Pump (ex.)

11kW
 overload capacity:
 120 %, 60 sec



Achieve High Torque with Ease

Our C1 Series provides a high starting torque of 200% or greater using advanced sensorless vector control, especially when sized for heavy-duty applications.

- **Powerful Performance:** Ideal for demanding applications like cranes, hoists, and lifts.
- **Simple Setup:** The auto-tuning function ensures easy and effective implementation of sensorless vector control.



Integrated Braking Resistor Control

All C1 models come standard with a built-in braking resistor control circuit. The braking resistor itself is available as an optional accessory.

Eco-friendly

Long-Life Components for Sustainable Performance

Our C1 Series is designed for longevity, with cooling fans and built-in capacitors offering an estimated 10-year lifespan*. The ON/OFF control function can further extend their life.

This durability not only reduces maintenance and replacement costs but also minimizes environmental impact. By choosing long-lasting components, you contribute to a more sustainable future, reducing waste and the need for frequent replacements.

*10 years is a design lifetime based on calculation, not guaranteed



EU RoHS2 Compliant

This series fully meets EU RoHS2 requirements, ensuring environmentally responsible performance.

Reliable Performance in Harsh Conditions

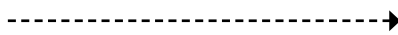
The internal PC board of the C1 Series is coated with a varnish coating, enhancing endurance in demanding environments (excluding logic PCB and I/F PCB).

Eco-Design Compliance

The C1 Series, like all Hitachi inverters, adheres to the Eco-design guideline IEC61800-9-2.

Details can be found on the dedicated webpage

<https://hitachi-industrial.eu/ecodesign>

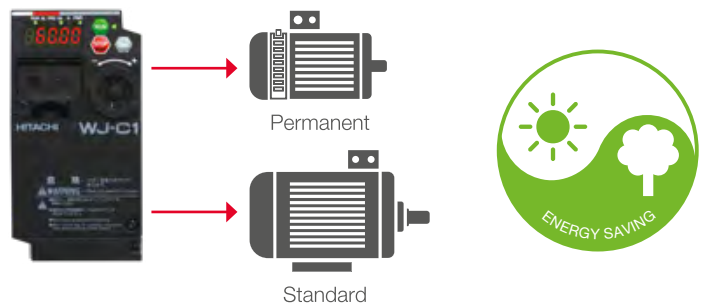




Versatile Motor Control with only one Inverter Series

The C1 Series supports control for both induction motors (IM) and permanent magnet motors (PM) with a single inverter.

Permanent magnet motors offer enhanced energy efficiency and optimal space utilization.



Watt-hour monitor

Energy consumption is displayed in kWh.



Step Toward Sustainability: Recycled Materials

Decarbonization is a global priority, and Hitachi is committed to achieving carbon neutrality across all its operations. We are dedicated to incorporating recycled materials to support this goal.



WJ-C1 contributes towards achieving carbon neutrality for a sustainable society by using recycled material for its outer housing.



General Specifications

Item		WJ-C1 Series
Control method		PWM control
Output frequency range (*1)		0.01 to 590.00Hz
Frequency accuracy		±0.01% for digital input / ±0.2% for analog input (at 25±10°C) (at the maximum frequency setting)
Frequency setting resolution		Digital input: 0.01 Hz , Analog input: (maximum frequency setting)/1000
Control mode (Voltage / frequency calculation) (*2)	IM	V/f control (constant- or reduced-torque, free V/f, automatic torque boost), V/f control with encoder, IM sensorless vector control, IM sensorless vector control with encoder
	PM (SM/PMM)	PM sensorless vector control (*3)
Rated overload current		Dual Rating: Normal Duty (ND): 150%/60sec / Light Duty (LD): 120%/60sec
Acceleration/Deceleration time		0.00 to 3600.00 seconds (in linear or curved pattern)
Starting torque (*4)		200%, 0.5Hz (by IM sensorless vector control)
Carrier frequency range		Normal Duty (ND): 2 to 15kHz, Light Duty (LD): 2 to 10kHz (with derating)
Monitor function (*5)		Output frequency, Output current, Output torque, Trip history, I/O terminal status, Input power, DC voltage
Protective function (*6)		Over Current, Over Voltage, Under Voltage, Electronic thermal, Over Load and more
Other functions		Free V/f characteristic setting, Manual torque boost, auto-tuning, Simple positioning functions, Energy saving operation, PID control, Brake control, Commercial switching function, Upper and lower speed limit, Speed jump, External start/ end, Analog output adjustment
Keypad		5 digits 7 seg, 6 status LED + 1 minus symbol LED, 4 Keys and 1 JOG dial, 1 LED for indicating RUN command source (non-detachable)
Input	Frequency reference	Keypad, External operator, RS485, Communication option, external analog input
	RUN/STOP command	Keypad, External operator, RS485, Communication option, input terminals
	Input terminals	Terminal [1] to [7] (NO/NC selectable, Sink(PLC-P24 jumper)/Source(PLC-L jumper) selectable) terminal [8] is source logic fixed
	Pulse input	3 terminals max. 32kHz x 3 (terminal [8](when enable phase A), terminal [7](when enable phase B), terminal [6] (when enable phase Z))
	Analog input	2 terminals (terminal [Ai1], [Ai2] for 0 to 10 VDC voltage input and 4 to 20 mA current input selectable)
	Thermistor input	1 terminal (shared with terminal [5]) (support for PTC type thermistor)
	Safety input	2 terminals (terminal [ST1] and terminal [ST2])
Output	Output terminals	2 terminals with open collector (NO/NC selectable, capable for Sink/Source circuit), 1 terminal for relay output (1c type)
	Functional safety EDM Output	1 terminal (shared with terminal [11], switched to EDM by slide switch)
	Analog output / Pulse output	2 terminals (terminal [Ao1] for 0 to 10 VDC voltage output / 4 to 20 mA current output selectable terminal [Ao2] for pulse output, max. 32 kHz/ 0 to 10 VDC output selectable)
External interface	USB	Micro-B (for inverter configuration software ProDriveNext)
	Modbus® (*7)	Support for Modbus-RTU (RS-485 serial communication)
	External operator	RJ45 connector (Exclusive connector for remote operator)
	Field network option	WJ200 series field network options. WJ-ECT: for EtherCAT® communication, WJ-PB: for PROFIBUS® communication, WJ-PN: for PROFINET® communication (*7) One unit can be mounted.
External control power supply		External 24 VDC can be input from [P24] terminal (installation of reverse-current-prevention diode is mandatory).
EMC noise filter		Not built-in (optional external noise filter can be connected)
Environment	Ambient temperature	ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C
	Storage temperature (*8)	-20 to 65°C
	Humidity	20 to 90%RH (non-condensing)
	Vibration	0.075 mm amplitude for 10 to 57 Hz 9.8 m/s ² (1.0G) for 57 to 150 Hz
	Installation (*9)	Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust and effect of radiation)
Structure		Protection: IP20 (UL open type), replaceable Fan
Standards (*10)		CE:EN IEC 61800-3:2018 (EMC-filter option required) , EN 61800-5-1:2007, EN 61800-5-1:2007/A1:2017, EN 61800-5-1:2007/A11:2021, EN 61800-9-2-:2017, EN IEC 63000:2018 UL:UL 61800-5-1, 1st Ed., Issue Date 2012-06-08, Revision Date 2021-02-11, -Overvoltage Category 3, -Pollution Degree 2 Others:c-UL C22.2 No.274, 2nd Ed., Issue Date 2017-04-01 Safety function:STO(Safe torque off)function / EN 61800-5-2:2017:SIL3, EN ISO 13849-1:2015:Cat.3 PLe EN 61508-1 to 7:2010
Other optional components		Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, External operator (Basic Mode : OPE-SR/OPESBK/ OPE-SRmini/WOP, Extended Mode: VOP), Inverter configuration software ProDriveNext (*11), etc.



Conformity to global standards

CE, UL, c-UL, c-Tick, RoHS2

Sink / source logic is standard

Logic input and output terminals can be configured for sink or source logic

Wide input power voltage range

Input voltage 240 V for 200 V class and 480 V for 400 V class as standard



- *1) The output frequency range depends on the control mode and the motor used. Consult the motor manufacturer for the maximum allowable frequency of the motor when operating beyond base frequency.
- *2) Motor constants might need to be adjusted depending on the control mode.
- *3) When using sensorless vector control for permanent magnet motor (PM), contact your dealer.
- *4) The value is specified for the 4 poles Hitachi standard motor controlled by the IM sensorless vector control at ND rating. Torque characteristics may vary depending on the control mode and the motor used.
- *5) Monitor function is for reference only. To obtain more accurate values, apply an external device.
- *6) When a driver error (E30) occurs due to the protective function, it may be resulted from the short-circuit protection, as well as damaged IGBT. Depending on the operating conditions of the inverter, an overcurrent error may occur instead of a driver error.
- *7) Trademark
 - Modbus® is a registered trademark of Schneider Electric USA, Inc.
 - EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automaton GmbH, Germany.
 - PROFSBUS® and PROFINET® are registered trademarks of PROFIBUS Nutzerorganisation e.V. (PNO).
- *8) The storage temperature is the temperature during transportation.
- *9) For installation at an altitude of 1000m or more, the atmospheric pressure will decrease by approximately 1% for every 100m altitude increase. Apply 1% current derating from the rated current for every 100m altitude increase and conduct an evaluation test. When using at an altitude of 2500m or more, please contact Hitachi Inverter distributor.
- *10) The standards information on the common specifications is as of March 2024.
- *11) Recognized as WJ200 in basic mode and WJ-C1 in extended mode.

Specifications

1-phase 200 V class

Model C1 - xxx HFE2 *				002	004	007	015	022					
Motor (kW) (*2)				LD	0,4	0,55	1,1	2,2	3				
				ND	0,2	0,4	0,75	1,5	2,2				
Output				Rated output current (A) (*3)		LD	2	3,5	6	9,8	12,2		
						ND	1,6	3,2	5	8	11		
				Rated output voltage (V) (*4)						Three phases 200 to 240V			
Rated capacity (kVA) (*3)				Extended		200V		LD	0,7	1,2	2	3,4	4,2
								ND	0,5	1,1	1,7	2,7	3,8
				240V		LD	0,8	1,4	2,4	4	5		
						ND	0,6	1,3	2	3,3	4,5		
Rated output voltage (V)				Single phase 200V to 240V(-15%/+10%), 50/60Hz ± 5%									
Braking				Regenerative braking								Built-in regenerative braking circuit (Separate discharge resistor)	
				Minimum breaking resistance (Ω)				100	100	50	50	35	
Cooling method				Self-cooling				Forced air cooling					
Dimensions				Height (mm)		128	128	128	128	128			
				Width (mm)		68	68	108	108	108			
				Depth (mm)		109	122,5	170,5	170,5	170,5			
Approx. Weight (kg)				1,0	1,1	1,6	1,8	1,8					

3-phase 400 V class

Model C1 - xxx HFE2 *				004	007	015	022	030	040	055	075	110	150	185	220					
Motor (kW) (*2)				LD	0,75	1,5	2,2	3	4	5,5	7,5	11	15	18,5	22	30				
				ND	0,4	0,75	1,5	2,2	3	4	5,5	7,5	11	15	18,5	22				
Output				Rated output current (A) (*3)		LD	2,1	4,1	5,5	7,1	8,9	11,9	17,5	24	31	38	43	57		
						ND	1,8	3,4	4,8	6	7,2	9,2	14,8	19	25	32	39	48		
				Rated output voltage (V) (*4)												Three phases 380 to 480V				
Rated capacity (kVA)				Extended		380V		LD	1,3	2,6	3,6	4,6	5,8	7,8	11,5	15,7	20,4	25	28,3	37,5
								ND	1,1	2,2	3,1	3,9	4,7	6	9,7	12,5	16,4	21	25,6	31,6
				480V		LD	1,7	3,4	4,5	5,9	7,3	9,8	14,5	19,9	25,7	31,5	35,7	47,4		
						ND	1,4	2,8	3,9	4,9	5,9	7,6	12,3	15,7	20,7	26,6	32,4	39,9		
Rated output voltage (V)				Three phases 380V to 480V (-15%/+10%), 50/60Hz ± 5%																
Braking				Regenerative braking												Built-in regenerative braking circuit (Separate discharge resistor)				
				Minimum breaking resistance (Ω)				180	180	180	100	100	100	70	70	70	35	24	24	
Cooling method				Self-cooling	Forced air cooling															
Dimensions				Height (mm)		128	128	128	128	128	128	260	260	296	296	350	350			
				Width (mm)		108	108	108	108	108	140	140	140	180	180	220	220			
				Depth (mm)		143,5	170,5	170,5	170,5	170,5	170,5	155	155	165	165	175	175			
Approx. Weight (kg)				1,5	1,8	1,8	1,8	2,0	2,0	3,5	3,5	4,5	4,5	6,5	6,5					

*1) The model name indicates capacity code and voltage class.

*2) LD: Light Duty, ND: Normal Duty(Dual rating).

Applicable motors are Hitachi's three-phase (4P) standard motors.

If use to other motors, be sure to prevent a rated current of a motor from exceeding the rated output current of the inverter.

*3) In Extended mode.

*4) The inverter cannot output the voltage more than the input voltage (main power supply voltage).

3-phase 200 V class versions are also available.



Easy replacement from WJ200

Familiar size and design



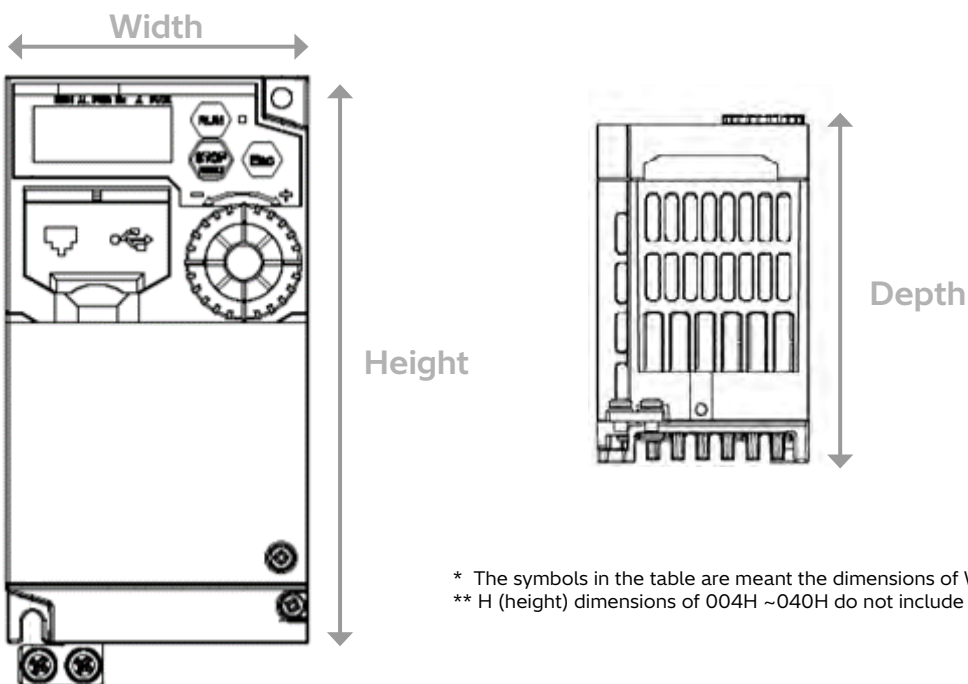
Direct replacement becomes easy as installation area or footprint of WJ200 and WJ-C1 are the same.

Easy transfer of parameters



The remote operator WOP enables copying parameter settings from WJ200 to WJ-C1 while converting parameters to the new format.

Explanation of dimensions



* The symbols in the table are meant the dimensions of W (width), H (height), D (depth)
 ** H (height) dimensions of 004H ~040H do not include the dimensions of the ground terminal.

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