

Move forward to Greener & Smarter Society





The Right Drive to Succeed



Cat.3 PLe, SIL3, STO compliant as standard New UL standards, EU directive, RoHS2

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WJ-C1 Features

- (⁾ User-Friendly
- Simulation function to shorten commissioning time *Scheduled in future
- Intuitive operation with JOG dial
- Safety function STO as standard



Variety of networks supported



Durable as WJ200

Diagnosis

Detection of "Not usual"

WJ200 series

*Scheduled in future

Inverter diagnosis

*Scheduled in future



With pulse input up to 32 kHz, Simple vector control with speed sensor and Simple position control *Scheduled in future

Sensorless vector control

for PM motor

*When using sensorless vector control for permanent magnet motor (PM), please contact your dealer.

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Standard Specifications

• Single Phase 200V Class

Model I C1-

Motor (kW) Rated outp (A) Rated outp

> Rated capacity (kVA)

Rated inpu Regen

Minimum

Cooling Approx. \

Output

Braking

• Three Phase 200V Class

name (*1) 100SF			001	002	004	007	015	022		Model na C1-D		001	002	004	007	015	022	037	055	075	110	150	
(*2)		LD	0.2	0.4	0.55	1.1	2.2	3.0		Mater (1)AD (LD	0.2	0.4	0.75	1.1	2.2	3.0	5.5	7.5	11	15	18.5	
		ND	0.1	0.2	0.4	0.75	1.5	2.2		wotor (kw) (ND	0.1	0.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15
ut current LD (*3) ND		LD	1.2	1.9	3.5	6.0	9.6	12.0		Rated outpu	t current	LD	1.2	1.9	3.5	6.0	9.6	12.0	19.6	30.0	40.0	56.0	69.0
		ND	1.0	1.6	3.0	5.0	8.0	11.0		(A) (*	3)	ND	1.0	1.6	3.0	5.0	8.0	11.0	17.5	25.0	33.0	47.0	60.0
out voltage (V) (*4)			Three phases 200 to 240V						t	Rated output	Rated output voltage (V) (*4)		Three phases 200 to 240V										
	2001/	LD	0.4	0.6	1.2	2.0	3.3	4.1	utor		200V	LD	0.4	0.6	1.2	2.0	3.3	4.1	6.7	10.3	13.8	19.3	23.9
200	2000	ND	0.2	0.5	1.0	1.7	2.7	3.8	0	Rated		ND	0.2	0.5	1.0	1.7	2.7	3.8	6.0	8.6	11.4	16.2	20.7
	24014	LD	0.4	0.7	1.4	2.4	3.9	4.9		(kVA)		LD	0.4	0.7	1.4	2.4	3.9	4.9	8.1	12.4	16.6	23.2	28.6
240V		ND	0.3	0.6	1.2	2.0	3.3	4.5			240V	ND	0.3	0.6	1.2	2.0	3.3	4.5	7.2	10.3	13.7	19.5	24.9
t voltage (V)		Single phase 200V to 240V (-15%/+10%), 50/60Hz ±5%							Rated input	voltage (\	v)	Three phases 200V to 240V (-15%/+10%), 50/60Hz ±5%											
erative braking		Built-in transistor circuit (without resistor)						D	Regener	ative bra	king	Built-in transistor circuit (without resistor)											
braking resistance (Ω)		100 50			0	35	Brak	Minimum braking resis (Ω)		sistance	100		5	50		35		17		10			
method		Self-cooling Forced air cooling					Cooling method				Self-cooling Forced air cooling					oling							
Veight (kg)			1.0	1.0	1.1	1.6	1.8	1.8		Approx. W		1.0	1.0	1.1	1.2	1.6	1.8	2.0	3.5	3.5	4.5	6.5	

• Three Phase 400V Class

Approx. Weight (kg)

1.5

1.8

1.8

	Model na C1-uu	ıme (*1) ı□HF		004	007	015	022	030	040	055	075	110	150		
	LD			0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5		
	Motor (kW) (0.4	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15				
	Rated outpu	lated output current		2.1	4.1	5.4	6.9	8.8	11.1	17.5	23.0	31.0	38.0		
	(A) (*3)		ND	1.8	3.4	4.8	5.5	7.2	9.2	14.8	18.0	24.0	31.0		
t	Rated output voltage (V) (*4)			Three phases 380 to 480V											
utpr	Rated capacity (kVA)	380V	LD	1.3	2.6	3.5	4.5	5.7	7.3	11.5	15.1	20.4	25.0		
0			ND	1.1	2.2	3.1	3.6	4.7	6.0	9.7	11.8	15.7	20.4		
		480V	LD	1.7	3.4	4.4	5.7	7.3	9.2	14.5	19.1	25.7	31.5		
			ND	1.4	2.8	3.9	4.5	5.9	7.6	12.3	14.9	19.9	25.7		
	Rated input	voltage (V)	Three phases 380V to 480V (-15%/+10%), 50/60Hz ±5%											
bu	Regener	ative bra	king	Built-in transistor circuit (without resistor)											
Braki	Minimum braking resistance (Ω)			180 100 70 35											
	Cooling r	nethod		Self- cooling	Self- cooling Forced air cooling										

*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

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) When Basic mode is selected.

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

1.8 Send Quote Requests to info@automatedpt.com

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Send Quote Requests to info@automatedpt.com Common Specifications

Internal Public control Control method Quing Lifequency range (*) QUI to SNUDH2 Frequency setting modulian Diplat Input 2011; Analog input (at 25:10°C) (at the maximum frequency setting) Frequency setting modulian Diplat Input 2011; Analog input (at 25:10°C) (at the maximum frequency setting) Vidage/Frequency control model M M control (control - reduced torque, free V/. Auto boost mode), V/C control with sensor. Vidage/Frequency control mode M control (control - reduced torque, free V/. Auto boost mode), V/C control with sensor. Vidage/Frequency control mode M control (control - reduced torque, free Senting torque (*) 2000, SEt (by M sensories vector control 0 Regenerative braining Built in transistor circuit (brithout resistor) Other functions Other Gurrent Over Voltage Under Voltage, Electronic thermal. Over Load and etc. Other functions S digits 7 seg.1 sign ED.7 status ED.4 keys and 1 XOG dial (non-detachable) Digital panel S digits 7 seg.1 sign ED.7 status ED.4 keys and 1 XOG dial (non-detachable) Paules train input 2 terminals (MONX selectable, SinCPUC F2.4 jumper) Source/FC.1 Jumper) selectable) Paules train input 1 terminal (Filter hearts option) Terminal Since Paules A, terminal (TOVANC selectable, coptase senin)		lterre	Devictor										
Autor memoro accurs; accurs; even accurs accurs; even accurs accurs; even accurs; e	C	Item	Description										
Durp Dr. Hegenery Second LUD 110 55000442 Visitigat Frequency setting Second 100 Hz analog input (at 25±10°C) (at the maximum frequency setting) Visitigat Frequency control mode M Micro Tesk Second 2000 Visitigat Frequency control mode M Micro Tesk Second 2000 Visitigat Frequency control mode Micro Second 2000 Micro Second 2000 Stated control Dual fatting formal Day (ND): 1059/05642 Lipit Second 2000 Stated control Dual fatting formal Day (ND): 1059/05642 Lipit Second 2000 Stated control C3 Dual fatting formal Day (ND): 1059/05642 Lipit Day (DJ): 1209/65642 Stated control C3 Dual fatting formal Day (ND): 1059/0564 Lipit Day (DJ): 1209/65642 Other functions Privised Frequency rearge Normal Day (ND): 210 15462, Lipit Day (DJ): 210 15462 (Lipit Day	Con	troi method											
Production score Explore the score of the s	Out	but frequency range (^ I)	0.010 for dividing t (10.20 for analytic input (at 25 $\pm 10\%$) (at the maximum formula with π)										
Preparety setting i resolution product your 22, Andaig input inflammum requests yetting you0 you1age / requests yetting resolution you1age / regulate resolution you1age / requests yetting resolution you1age / regulate resolution	Freq	uency accuracy	$\pm 0.01\%$ for digital input / $\pm 0.2\%$ for analog input (at 25±10°C) (at the maximum frequency setting)										
Voltage/Tequency control mode M Mill Control Control Control Voltage/Tequency control mode MK (Control Control Control City) Valued overload current Dala Raing, Normal Dury (MD): 150/K66xe / Light Dury (D): 120%/K65xe Starting trape (Fig 200 to 360000 seconds (in linear or curred pattern) Starting trape (Fig 200 to 360000 seconds (in linear or curred pattern) Starting trape (Fig 200 to 360000 seconds (in linear or curred pattern) Monitor function (Fig) 40 kinds Protective function (Fig) 50 digits 7 seg, 1 sign LID, 7 status LID, 4 keys and 1 JOG dial (non-detachable) Protective function (Fig) 2 terminals (NO/NC selectable, Sinc/PLC-P24 jumper/) Source(PLC-1 jumper/) selectable) Protectimals 7 terminals (NO/NC selectable, Sinc/PLC P24 jumper/) Source(PLC-1 jumper/) selectable) Protectiminals 7 terminals (NO/NC selectable, capable fo	Freq	uency setting resolution	Uigital Input: U.U.I.Hz, Analog Input: (maximum frequency setting)/ 1000										
C ¹⁰ PM (SM/PMM) PM senders vector control (?) Exted overlad current Dual Baing, Norma Dury, ND; 1920%/650ecr. / Light Dury (LD): 120%/650ec Starting torque (*1) 200%, 0.514: (by M senodess vector control) Regenerative braining Built-In transitics criticalit (Whoth eristical) Carrier frequency range Normal Dury, ND; 1920%/650ecr. / Light Dury (LD): 120%/650ec Monthar function (*5) 40 kinds Potestice kanction (*6) Over Current, Over Voltage, Electronic thermal, Over Laad and etc. Other functions 57 kinds Digital panel 5 digits 7 seg. 1 sign LED, 7 status LED, 4 keys and 1 JOG dial (non-detachable) Potestice kanction (*6) Were under the distance option RUNSTOP commad Keypaa, Remote operator. Modous *, Field network option. RUNSTOP commad Keypaa, Remote operator. Modous *, Field network option. Pute terminals 7 terminals (NO/NC selectable, Sinc(PC-242 jumper)/Source(PC-L) jumper) selectable) Analog input 2 terminals (North Vortage ID) Stating input 1 terminal (Nort Vortage ID) Stating input 2 terminals (Nortage Vortage) for PTC type thermistor) Stating input 1 terminal (Nort VOrtage ID) Sta	Volt	age/ Frequency control mode	IM IM sensorless vector control										
Rest State Deal Rating, Normal Duty (ND): 130% 606ec / Ugik Duty (DD): 120% 606ec Schring torque (*4) 2005, 0.5142 (by M sensories vector control) Regrenerative binking Bull-Intrastistor circuit (without resistor) Corrier frequency ruge Normal Duty (ND): 2.10 SH72, Light Duty (DD): 2.10 OHz (DD): 2.	(*2)		PM (SM/PMM) PM sensorless vector control (*3)										
Acceleration Ubeceleration time 0.00 to 3600.00 seconds (in linear or curved pattern) Starting torque (14) 200% 0.3Hz (by IM sensoless vector control) Regreerative braking Numi- In transistor circui (without resistor) Carrier frequency range Normal Duty (ND): 2 to 15Hz Light Duty (LD): 2 to 10Hz (with derating) Monitor function (15) 40 kinds Protective function (15) Over Current, Over Voltage, Lisertonic thermal, Over Load and etc. Diptal panel 5 digits 7 seg, 1 sign LED, 7 starus LED, 4 keys and 1 JOG dial (non-detachable) Protective function (15) Verpate Renote operator, Modbus 9, Field network option, External analog signal RUMSTOR command Keypad, Renote operator, Modbus 9, Field network option put terminals 7 terminals MOV/C selectable, Sinc/PLC-P24 jumpen/Source/PLC-L jumpe	Rate	d overload current	Dual Rating: Normal Duty (ND): 150%/60sec / Light Duty (LD): 120%/60sec										
Starting orque (*4) 200%, 0.5Hz (by M sensories vector control) Regenerative brained 200Hz (brain charal for charal (whithou resistio) Control frequency range Normal Duty (ND): 2 to 15Mz (upt Duty (LD): 2 to 15Mz (Upt Duty (Upt Dut) 1 terminal (Upt Duty (Upt	Acce	eleration/Deceleration time	0.00 to 3600.00 seconds (in linear or curved pattern)										
Regenerative braking Built-in transistor dicult (without resistor) Carrier frequency range Normal Duty (ND): 2 to 15kHz, Light Duty (UD): 2 to 10kHz (with derating) Monitor function (*5) 40 kinds Protective function (*5) 7 kinds Digital panel 5 digits 7 seg. 1 sign LED. 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 kinds Protective function (*5) 7 kinds Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 kinds Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (*5) 7 status LED. 4 keys and 1 JOG dial (non-detachable) Protective function (10) 7 terminals (hard 2 betwork option reput. Terminal (hard to phase A), terminal (JII JOF DOC 10 UV voltage input. Terminal (hard to phase A), terminal (JII JOF DOC 10 UV voltage output. Terminal (hard with terminal JII Jor DOC 10 UV voltage output. Terminal (hard with terminal JII Jor DOC 10 UV voltage output. Terminal (hard with terminal JII Jor DOC 10 UV voltage output. Terminal (hard Key Ados stati communication) Protective Terminal (hard Key Ados stat	Star	ting torque (*4)	200%, 0.5Hz (by IM sensorless vector control)										
Charler frequency range Normal Dudy (NDI): 2 to 15kHz, Light Duty (LD): 2 to 15kHz, (with derating) Monitor function (*5) 40 kinds Protective function (*5) 40 kinds Ditter function (*6) Over Current. Over Voltage. Under Voltage. Electronic thermal. Over Load and etc. Ditter function (*6) Over Current. Over Voltage. Under Voltage. Electronic thermal. Over Load and etc. RuNSTDP command Keypad, Remote operator, Modbus 9, Field network option. External analog signal Input terminals X terminals (NDK) Keekcable. Sing Source(PLC-1 jumper) selectable) Input terminals 2 terminals (RNICK) Ceabrable. Sing Source(PLC-1 jumper) selectable) Analog input 2 terminals (RNICK) Ceabrable. Externial T(Z) when enable phase B). Intermistor input 1 terminal (ANIT for DCD to 10V voltage input. Safety output 1 terminal (SNICK) command (ST) Indig/Puble train output 2 terminals (terminal (ST) Voltput terminals 1 terminal (ANIT for DCD to 10V voltage output. Intermistor (ST) Safety output 1 terminal (SNIC and terminal (ST) Voltput terminals 1 terminal (SNIC and terminal (ST) Voltput terminals 1 terminal (SNIC and terminal (ST) Voltput terminals 1 term	Reg	enerative braking	Built-in transistor circuit (without resistor)										
Monitor function (*5) 40 kinds Protective function (*5) Over Current, Over Voltage, Electronic thermal, Over Load and etc. Diplet Janel 57 kinds Sig 15 ganel 57 kinds Image: Signal Signal Signal ED, 7 status LD, 4 keys and 1 JOG dial (non-detachable) Image: Signal Signa Signal Signa Signal Signal Signal Signal Signal Signa Signal Sig	Carr	ier frequency range	Normal Duty (ND): 2 to 15kHz, Light Duty (LD): 2 to 10kHz (with derating)										
Protective function (+6) Over Current, Over Voltage, Under Voltage, Electronic thermal, Over Load and etc. Other functions 57 kinds figure 12 kinds 17 kinds 10 kinds 11 kind	Mor	itor function (*5)	40 kinds										
Other functions 57 kinds Digital panel 5 digits 7 seg. 1 sign LED, 7 status LED, 4 keys and 1 JOG dial (non-detachable) Image: Sign LED, 7 status LED, 4 keys and 1 JOG dial (non-detachable) requency reference Reypad, Remote operator, Modbus®, Field network option, External analog signal requency reference Imput terminals 7 terminals (NO/NC selectable, Sinc/PLC-P24 jumper)/Source(PLC-L jumper) selectable) Pute terminal and sign put 2 terminals (NO/NC selectable, Sinc/PLC-P24 jumper)/Source(PLC-L jumper) selectable) Analog input 2 terminals (NO/NC selectable, Sinc/PLC-P24 jumper)/Source(PLC-L jumper) selectable) Analog input 2 terminals (NO/NC selectable, Sinc/PLC-P24 jumper)/Source (incuit) Terminal King to PCC 4 to 200 A current input) 1 terminal (No/NC selectable, capable for Sinc/Source circuit) Terminal King to PCC 4 to 200 A current input) 2 terminals with open collector (VO/NC selectable, capable for Sinc/Source circuit) Terminal King to PCC 4 to 200 A current input) 2 terminals (No/PCC 4 to 200 A current input) Terminal King to PCC 4 to 200 A current input) 1 terminal (No/PCC 4 to 200 A current input) Terminal King to PCC 4 to 200 A current input) 2 terminals with open collector (VO/NC selectable, capable for Sinc/Source circuit) Terminal King to PCC 4 to 200 A current input) 2 terminals wi	Prot	ective function (*6)	Over Current, Over Voltage, Under Voltage, Electronic thermal, Over Load and etc.										
Digital panel Schöjis 7 seg. 1 sign LED, 7 staus LED, 4 keys and 1 JOG dial (non-detachable) Frequency reference Keypad, Remote operator, Modbus [®] , Field network option, External analog signal RUW,STOP command Keypad, Remote operator, Modbus [®] , Field network option RUW,STOP command Keypad, Remote operator, Modbus [®] , Field network option Ruw,StoP command Keypad, Remote operator, Modbus [®] , Field network option Apalog input 2 terminals (MO/NC selectable, Sinc(FUC-F24 jumper)/Source(FUC-L jumper) selectable) Analog input 2 terminals (MI CO to 10 Voltage input, terminal [AI] (To CO to 10 Voltage output, terminal (To CA to 2 DOM a uterent input) Safety unput 2 terminals (terminal [SI] (Support for CO to 10 Voltage output, terminal [AI] (To CO to 10 Voltage output, te	Oth	er functions	57 kinds										
Frequency reference Keypad, Remote operator, Modbus®, Field network option RUN/STOP command Keypad, Remote operator, Modbus®, Field network option Input terminals 7 terminals (NO/NC selectable, Sinc/PEC-P24 jumper)/Source(PEC-L jumper) selectable) Pulse train input 2 terminals (NO/NC selectable, Sinc/PEC-P24 jumper)/Source(PEC-L jumper) selectable) Analog input 2 terminals (REMINAL X 2 (terminal [All) for DCO to 10V voltage input, terminal [All) for DCO to 10V voltage input, terminal [All) for DCO to 10V voltage input, Safety input 2 terminals (terminal [ST1] and terminal [ST2]) Safety output 1 terminal [ST1] and terminal [ST2] Safety output 1 terminal [Lan] for DCO to 10V voltage output, terminal [All for DCO to 10V voltage output, analog/Pulse train output Safety output 1 terminal [Lan] for DCO to 10V voltage output, terminal [All [Con public trin output, max.324tz/DC10V output) VBB Micro-B (for inverter configuration software ProDriveNext) Sugar for Modbus* (*7) Support for Modbus-RTU (RS-485 serial communication) VI-ECT: for CE:Lnk* communication, WJ-PR: for PROFINET* communication, WJ-ECT: for CE:Lnk* communication, VJ-PR: for PROFINET* communication, WJ-ECT: for CE:Lnk* communication, VJ-PR	Digi	tal panel	5 digits 7 seg, 1 sign LED, 7 status LED, 4 keys and 1 JOG dial (non-detachable)										
Res W/STOP command Keypad, Remote operator, Modbus %, Field network option Input terminals 7 terminals (NO/NC selectable, Sinc/PLC-P24 jumper)/Source(PLC-1 jumper) selectable) Puse train input 2 terminals (RIG) (RIG) PDC to 10 Vortage input, terminal (RIG) (RIG) PDC to 10 Vortage input, terminal (RIG) (RIG) PDC to 10 Vortage input, terminal (RIG) (RIG) PDC to 20 mA current input) Thermistor input 1 terminal (SIG) (RIG) PDC to 20 mA current input) Safety input 2 terminals with open collector (NO/NC selectable, capable for Sink/Source circuit) Output terminals 2 terminals with open collector (NO/NC selectable, capable for Sink/Source circuit) Analog/Puse train output 2 terminals (RIG) repulse train output, max 32kHz/DC10V output, terminal (RIG) Analog/Puse train output 2 terminals (RIG) repulse train output, max 32kHz/DC10V output, terminal (RIG) Analog/Puse train output 2 terminals (RIG) (RIG) repulse train output, max 32kHz/DC10V output, terminal (RIG) (RIG) repulse train output, terminal (RIG) (RIG) repulse train output, terminal (RIG) (RIG) repulse reperator VB38 Micro-8 (for inverter configuration software ProDriveNext) Modbus* (*7) Support for Modbus-RTU (RIG-485 serial communication) External control power supply External 24 VDC can be input from [P24] terminal (Installation of reverse-current-prevention diode is mandatory). External contr		Frequency reference	Keypad, Remote operator, Modbus®, Field network option, External analog signal										
Input terminals 7 terminals		RUN/STOP command	Keypad, Remote operator, Modbus®, Field network option										
Pulse train input 2 terminals max. 324trlx 24 (terminal [AI1] for DC0 to 10V voltage input. Analog input 2 terminals (terminal [AI1] for DC0 to 10V voltage input. Thermistic rinput 1 terminal [GI0 CD C4 to 20M current input) Thermistic rinput 1 terminals (terminal [SI]) (support for PTC type thermistor) Safety input 2 terminals (terminal [SI]) Output terminals 2 terminals (terminal [SI]) Safety output 1 terminal (for PCC to 10V voltage cutput, terminal [A02] for DC0 to 10V voltage output, terminal [A02] for pulse train output metrinals (terminal [A01] for DC0 to 10V voltage output, terminal [A02] for IDC0 to 10V voltage output, terminal [A02] for pulse train output metrinal [A02] for DC0 to 10V voltage output, terminal [A02] for IDC0 to 10V v		Input terminals	7 terminals (NO/NC selectable, Sinc(PLC-P24 jumper)/Source(PLC-L jumper) selectable)										
Image: Second	out	Pulse train input	2 terminals max. 32kHz x 2										
Analog input Terminal [Al2] for DC4 to 20mA current input) Themistor input 1 terminals (shared with terminal [SI)(support for PTC type thermistor) Safety input 2 terminals (terminal [ST2]) Output terminals 2 terminals (terminal [ST2]) Safety output 1 terminals (terminal [AD1] for DC0 to 10V voltage output, terminal [AD2] for public train output, max 32kHz/DC10V output) USB Micro-B (for inverter configuration software ProDriveNext) Modus ⁶ (*7) Support for Modus-RTU (RS-488 serial communication) W1200 series field network options. W1200 series field network options. W1200 series field network options. W1200 series field network options. W1200 series field network option W1-ECT: for EhrerAT [*] communication. (*7) One unit can be mounted. External 24 VDC can be input from (P24) terminal (installation of reverse-current-prevention diode is mandatory). EME Not built-in (optional external noise filter can be connected) Ambient temperature ND (normal duty):-10 to 50°C / 1D (light duty): -10 to 40°C Horise filter Not bou	Ē		(terminal [8](TIX to phase A), terminal [7](when enable phase B))										
Immistor input 1 terminal (shared with terminal (SI)(support or PTC type thermistor) Safety input 2 terminals (terminal (ST1) and terminal (ST2)) Output terminals 1 terminal for relay output (1 type) Safety output 1 terminal for relay output (1 type) Safety output 1 terminal (AD1 for DC0 to 10V voltage output, Analog/Pulse train output 2 terminals (terminal (AD1 for DC0 to 10V voltage output, terminal (AD2) for pulse train output, max 32kH2DC10V output) USB Micro-B (for inverter configuration software ProDriveNext) Modbus* (*7) Support for Modbus-RTU (RS-485 serial communication) External operator RH2s connector (Exclusive connector for remote operator) W1200 series field network options. W1-CC1 for CC-1ink* communication, W1-PB: for PROFIBUS* communication, W1-PB: for PROFINET* communication, W1-CC1 for CC-1ink* communication, (*7) One unit can be mounted. External control power supply External control power supply External al24 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) More thereperature (*8) -20 to 65°C Storage temperature (*8) -20 to 65°C Vibration 0.075 mm amplitude for 10 to 57 Hz 9.8		Analog input	terminal [Ai2] for DC4 to 20mA current input)										
Safety input 2 terminals (ST1) and terminal [ST2]) 2 2 terminals with open collector (NO/NC seletable, capable for Sink/Source circuit) 3 2 terminals 2 terminals with open collector (NO/NC seletable, capable for Sink/Source circuit) 4 3 2 terminals 2 terminal for relay output (1 to type) 4 1 terminal for relay output (1 to type) 2 terminals (terminal [AD2] for puble train output, max. 32kHz/DC10V output) 4 Analog/Pulse train output 2 terminals (terminal [AD2] for puble train output, max. 32kHz/DC10V output) 4 VB8 Micro-B (for inverter configuration software ProDriveNext) 5 Modbus* (*7) Support for Modbus-RTU (R5-485 serial communication) 7 WJ200 series field network options. WJ200 series field network options. 6 WJ200 series field network option. WJ-EC1: for EtherCAT [®] communication. (7) 7 One unit can be mounted. External control power supply External output = 0 to 30°C / LD (light duty): -10 to 40°C 8 Mabient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C 6 Storage temperature (*8) -20 to 65°C 7 -20 to 65°C Huinidit -2		Thermistor input	1 terminal (shared with terminal [5])(support for PTC type thermistor)										
Output terminals 2 terminals with open collector (NO/NC selectable, capable for Sink/Source circuit) 1 terminal for relay output (1 type) Safety output 1 terminal (shared with terminal [10], switched to EDM by slide switch) 2 terminals (control power selectable, capable for Sink/Source circuit) Analog/Pulse train output 2 terminals (terminal [A02] for pubse train output, max. 32kHz/DC10V output) USB Micro-B (for inverter configuration software ProDriveNext) Wodbus* (*7) Support for Modbus-RTU (RS-485 serial communication) External operator RH45 connector (Exclusive connector for remote operator) Wi200 series field network options. WI-ECT: for EtherCA1* communication, WI-PB: for PROFIBUS* communication, WI-PN: for PROFINET* communication, WI-CT. for C-Link' communication, (*7) One unit can be mounted. Storage temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Koroge temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) <td></td> <td>Safety input</td> <td colspan="9">2 terminals (terminal [ST1] and terminal [ST2])</td>		Safety input	2 terminals (terminal [ST1] and terminal [ST2])										
Safety output 1 terminal (shared with terminal [11], witched to EDM by slide switch) Analog/Pulse train output 2 terminals (composition of the pulse train output, max. 32kHz/DC10V output) USB Micro-B (for inverter configuration software ProDriveNext) Modbus ⁶ (*7) Support for Modbus-RTU (KS-485 serial communication) External operator R145 connector (Exclusive connector for remote operator) W1200 series field network options. WJ-200: for EtherCAT [*] communication, WJ-PB: for PROFIBUS [*] communication, WJ-PN: for PROFINET [*] communication, WJ-CC1: for CC-Link [*] 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 Moise filter Nb built-in (optional external noise filter can be connected) Moising temperature (*8) -20 to 65°C Humidity 20-90%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) Attitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IC 6 1800- 5.10; CU (Lingen type), replaceable Fan CE: IC 6 1800-3 (UC-6 filter option required), IEC 6 1800-5-1 UL: UL 6 1800/5-1; -Overvoltage Cat	Ħ	Output terminals	2 terminals with open collector (NO/NC selectable, capable for Sink/Source circuit) 1 terminal for relay output (1c type)										
C Analog/Pulse train output 2 terminal (Ac1) for DC0 to 10V voltage output, terminal (Ac1) for DC0 to 10V voltage output, and 25Hz/DC10V output) USB Micro-B (for inverter configuration software ProDriveNext) Modbus® (*7) Support for Modbus-RTU (RS-485 serial communication) External operator RI45 connector (Exclusive connector for remote operator) WJ200 series field network Option WJ-ECT: for EtherCAT® communication, WJ-PB: for PROFIBUS® communication, WJ-PN: for PROFINET® communication, WJ-ECT: for CC-Link® 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). EME Toise filter Not built-in (optional external noise filter can be connected) Ambient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Yu 20 - 90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61808-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Other optional components Others: -CUL Safet func	utp	Safety output	1 terminal (shared with terminal [11], switched to EDM by slide switch)										
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 WJ-ECT: for EtherCAT* communication, WJ-PB: for PROFIBUS* communication, WJ-PN: for PROFINET* communication, WJ-CC: for CC-Link* 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) Mombinet temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-Filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -0vervoltage Category 3, -Pollution Degree 2 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	0	Analog/Pulse train output	2 terminals (terminal [Ao1] for DC0 to 10V voltage output, terminal [Ao2] for pulse train output, max. 32kHz/DC10V output)										
Wedbus* (*7) Support for Modbus-RTU (RS-485 serial communication) External operator RJ45 connector (Exclusive connector for remote operator) Wi200 series field network Option Wi200 series field network options. Wi-CCI: for CC-Link* communication, WJ-PB: for PROFIBUS* communication, WJ-PN: for PROFINET* communication, WJ-VD: for or PROFINET* communication, WJ-CCI: for CC-Link* communication. (*7) One unit can be mounted. Not built-in (optional external noise filter can be connected) EME Not built-in (optional external noise filter can be connected) Image: termal cancer ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-909xRH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61508, IEC 61800-5-2: SIL3, ISA (Sade Struge Calcer of Struge Calcer (OPE-SR/OPE-SRK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	e	USB	Micro-B (for inverter configuration software ProDriveNext)										
Image: Starterial operator RI45 connector (Exclusive connector for remote operator) Image: Starterial operator RI45 connector (Exclusive connector for remote operator) Image: Starterial operator RI45 connector (Exclusive connector for remote operator) Image: Starterial operator W1200 series field network options. Image: Starterial operator Not built-in (optional external noise filter can be connected) Image: Starterial operator Not normal duty):-10 to 50° C / LD (light duty): -10 to 40°C Image: Starterial operator ND (normal duty):-10 to 57° LD (light duty): -10 to 40°C Image: Starterial operator -20 to 65°C Image: Starterial operator ND (normal duty):-10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Image: Starterial operator 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Image: Starterial operator Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option re	erfac	Modbus® (*7)	Support for Modbus-RTU (RS-485 serial communication)										
Wized series field network option. WizedT: for EtherCAT* communication, WJ-PB: for PROFIBUS* communication, WJ-PN: for PROFINET* communication, WJ-CI: for CC-Link* communication, (*7) One unit can be mounted. 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) Ambient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL UL 01 (B300-5-1, -0vervoltage Category 3, -Pollution Degree 2 Other: optional components Noise Filter, CC link choe, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	inte	External operator	RJ45 connector (Exclusive connector for remote operator)										
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) Ambient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Other: vptional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SRK/OPE-SRmini/WOP), Inverter	External	Field network Option	WJ200 series field network options. WJ-ECT: for EtherCAT [®] communication, WJ-PB: for PROFIBUS [®] communication, WJ-PN: for PROFINET [®] communication, WJ-CCL: for CC-Link [®] communication. (*7) One unit can be mounted.										
EMC noise filter Not built-in (optional external noise filter can be connected) Ambient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c+UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	Exte	rnal control power supply	External 24 VDC can be input from [P24] terminal (installation of reverse-current-prevention diode is mandatory).										
Ambient temperature ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	EMC	noise filter	Not built-in (optional external noise filter can be connected)										
Storage temperature (*8) -20 to 65°C Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	4	Ambient temperature	ND (normal duty):-10 to 50°C / LD (light duty): -10 to 40°C										
Humidity 20-90%RH (non-condensing) Vibration 0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s² (1.0G) for 57 to 150 Hz Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	nen	Storage temperature (*8)	-20 to 65℃										
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Installation (*9) Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust) Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Standards (*10) Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	Envi	Vibration	0.075 mm amplitude for 10 to 57 Hz, 9.8 m/s ² (1.0G) for 57 to 150 Hz										
Structure Protection: IP20 (UL open type), replaceable Fan CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.		Installation (*9)	Altitude: 1000m or less, indoors (free from corrosive gases, oil mist, and dust)										
CE: IEC 61800-3 (EMC-filter option required), IEC 61800-5-1 UL: UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0 Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	Stru	cture	Protection: IP20 (UL open type), replaceable Fan										
Other optional components Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.	Star	dards (*10)	LE: IEL 6 1800-3 (EMC-TITER Option required), IEC 61800-5-1 UL : UL 61800-5-1, -Overvoltage Category 3, -Pollution Degree 2 Others: c-UL Safety function: STO (Safe torque off) function/ IEC 61508, IEC 61800-5-2: SIL3, ISO 13849-1: Cat.3 PLe, IEC 60204-1:Stop Cat.0										
	Oth	er optional components	Noise Filter, DC link choke, AC reactor, Braking resistor, Regenerative braking unit, Remote operator (OPE-SR/OPE-SBK/OPE-SRmini/WOP), Inverter configuration software ProDriveNext, etc.										

*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 Automation Inc.
EtherCAT * is registered trademark of PROFIBUS Nutzerorganisation e.V. (PNO).
* CC-Link * is a registered trademark of ORFIBUS Nutzerorganisation e.V. (PNO).
*8) The storage temporerature is the temporature during transportation.

*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 July 2022.