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You can read the recommendations in the user guide, the technical guide or the installation guide for OMRON CIMR-V7AZ. You'll find the answers to all your questions on the OMRON CIMR-V7AZ in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual OMRON CIMR-V7AZ
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omron

CIMR-V7AZ
Varispeed V7

Sensorless vector in pocket size

- Nominal torque at 0.5 Hz
- Autotuning
- High carrier up to 14 kHz
- Stop accuracy function
- Integrated PID controller and bidirectional PID-out put
- Motor protection with PTC input
- Pulse input
- Standard digital operator with copy function
- Fieldbus: Modbus, DeviceNet, PROFIBUS, CANopen
- High speed motion bus: ML-II
- Plug-in PLC option unit. Total inverter access.
- CE, UL, and cUL marked

V7 IP65

- Compact size
- Easy wiring
- Built-in filter (Class E)


Customized software*

- The inverter software can be customized to meet specific application. Examples:
 - Traveler software S-5281







*For detailed information please refer to cable software section.

Rated


- 200 V Class single-phase 0.1 to 4 kW
- 200 V Class three-phase 0.1 to 7.5 kW
- 400 V Class three-phase 0.2 to 7.5 kW




System configuration

					
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Line filter




Braking accessories



Communication unit



PLC option unit



*V7 IP65 types are built in the inverters.

*Optocouplers are needed for V7 IP65 type.

Varispeed V7 329



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Manual abstract:

5 Hz Autotuning High carrier up to 14 kHz Stop accuracy function. Integrated PID controller and bidirectional PID-out put Motor protection with PTC input Pulse input Standard digital operator with copy function Fieldbus: Modbus, DeviceNet, PROFIBUS, CANopen High speed motion bus: ML-II Plug-in PLC option unit. Total inverter access. CE, UL, and cUL marked V7 IP65 · Compact size · Easy wiring · Built-in filter (Class B) Customized software* · The inverter software can be customized to meet specific application. Examples: · Traverse software S-9381. *For detailed information please refer to case software section. Ratings · 200 V Class single-phase 0.1 to 4 kW · 200 V Class three-phase 0.1 to 7.5 kW · 400 V Class three-phase 0.

2 to 7.5 kW System configuration 3G3IV-PCN329-E Inverter to PC cable CX-Drive 3G3IV-PEZZ8122_ DIN attachment JVOP-144 Remote digital oper. with potentiometer JVOP-146 Remote digital oper. with potentiometer 3G3IV-PCN126/326 Digital operator extension cable Line filter *See note Braking accessories Varispeed V7 LKEB_ CDBR_B ERF150WJ_ * V7 IP65 types are built-in filter inverters. Communication unit *See note PLC option unit *See note * Option frames are needed for V7 IP65 type.

Varispeed V7 329 Specifications Type designation CIMR--V7AZB0P10 Inverter V7 series A: With digital operator (with potentiometer) T: V7 IP65 type with digital operator (without potentiometer) Z: European standard specifications Protective enclosure: 0: IP20 1: NEMA1 05: IP65 Max. applicable motor output 0P1: 0.1 kW 7P5: 7.5 kW Voltage B: Single-phase 200 VAC 2: Three-phase 200 VAC 4: Three-phase 400 VAC ["P" indicates a decimal point] 200 V class IP20 single-phase: CIMR-V7AZ IP65 single-phase: CIMR-V7TZ IP20 three-phase: CIMR-V7AZ Maximum permissible motor output kW1 Output characteristics Inverter capacity kVA Rated output current A Max. output voltage Max.

output frequency Rated input voltage and frequency Allowable voltage fluctuation Allowable frequency fluctuation 1. B0P1 --20P1 0.12 0.3 0.8 B0P2 --20P2 0.25 0.6 1.6 B0P4 B0P405 20P4 0.55 1.1 3.

0 B0P7 B0P705 20P7 1.1 1.9 5.0 B1P5 B1P505 21P5 1.5 3.0 8.0 B2P2 B2P205 22P2 2.2 4.2 11.0 B4P0 --24P0 4.

0 6.7 17.5 Proportional to input voltage: 0..240 V 400 Hz Single-phase 200.

.240 V 50/60 Hz 3-phase 200..230 V 50/60 Hz -15%..

+10% +5% Power supply Based on a standard 4-pole motor for maximum applicable motor output. Select the inverter model within the allowable motor rated current 400 V class IP20 three-phase: CIMR-V7AZ IP65 three-phase: CIMR-V7TZ Maximum permissible motor output kW1 Output characteristics Inverter capacity kVA Rated output current A Max. output voltage Max. output frequency Rated input voltage and frequency Allowable voltage fluctuation Allowable frequency fluctuation 1. @@@@ @@@@ 200 V or less (double for 400 V class) (approx. 160 V or less for single-phase series) Following items are selectable: not provided (stop if power loss is 15 ms or longer), continuous operation if power loss is approx. 0.5 s or shorter, continuous operation Protected by electronic circuit Individual levels during accel/constant speed. Decel ON/OFF available. During decel enable/disable selectable.

Detected by electronic circuit (fan lock detection) Protected by electronic circuit (operation level is approx. 250% of rated output current) RUN lamp stays ON or digital operator LED stays ON until the DC bus voltage becomes 50 V or less. (Charge LED is provided for 400 V) IP20, NEMA1, IP65 Self cooling for 200 V 0.1..0.4 kW (3 or single phase) and for 400 V 0.2..0.

75 kW Cooling fan for 200 V 0.75 to 7.5 kW and for 400 V 1.5 to 7.5 kW Open air mounting: -10 °C.

.50 °C Wall mounting: -10 °C..40 °C 95% (without condensation) -20 °C..

+60 °C (short-term temperature during transportation) Indoor (no corrosive gas, dust, etc.) Max. 1000 m 10 to 20 Hz, 9.8 m/s² max; 20 to 50 Hz, 2 m/s² max

Braking torque (short term peak torque) Binary inputs Functionality Protection functions Ambient conditions Binary outputs Analogue output Analogue inputs Braking/acceleration times Display Motor overload protection Instantaneous overcurrent Overload Overvoltage Undervoltage Momentary power loss

Cooling fin overheat Stall prevention level Cooling fan fault Ground fault Power charge indication Degree of protection Cooling Ambient temperature

Ambient humidity Storage temperature Installation Installation height Vibration Varispeed V7 331 Digital operator Data display Indicators (setting/monitor

item indicators) FREQUENCY adjuster Operation keys Appearance Data display Name Function Displays relevant data items, such as frequency reference,

output frequency, and parameter set values. Sets the frequency reference within a range between 0 Hz and the maximum frequency. 1 Frequency adjuster

Frequency reference indicator Output frequency indicator Output current indicator Multi-function monitor indicator Forward/reverse selection indicator

Local/remote selection indicator Parameter setting indicator Mode key Increment key Decrement key Enter key RUN key The frequency reference can be

monitored or set while this indicator is lit. The output frequency of the inverter can be monitored while this indicator is lit. The output current of the inverter

can be monitored while this indicator is lit. The values set in U01 through U10 are monitored while this indicator is lit. The direction of rotation can be

selected while this indicator is lit when operating the inverter with the RUN key.

The operation of the inverter through the digital operator or according to the set parameters is selectable while this indicator is lit. 2 The parameters in n001

through n179 can be set or monitored while this indicator is lit. 3 Switches the simplified-LED (setting and monitor) item indicators in sequence. Parameter

being set will be canceled if this key is pressed before entering the setting. @@@@ @@@@ Used to reset the inverter when an error occurs. 4 1. 2. 3. 4. V7

IP65 types have digital operator without frequency adjuster.

@@Any RUN comand input is ignored while this indicator is lit. @@@@ @@@@ @@@@ @@@@ applicable motor output kW 0.55 1.1 1.5 2.

2 0.55 1.1 Inverter Figure model CIMR V7TZ B0P405 B0P705 B1P505 B2P205 40P405 40P705 41P505 42P205 43P005 44P005 5 Dimensions in mm W H

D W1 W2 H1 H2 H3 D1 D2 Weight kg 3.6 280 240 180 260 228 165 38 275 44 38 4.5 3.

9 4.4 4.4 4.5 280 240 180 260 228 165 38 275 44 38 3.9 3.9 4.3 4.3 Fan cooled Self cooled Fan cooled Cooling method Self cooled Singlephase 200 V Three-

phase 400 V 1.5 2.2 3.

0 4.0 Varispeed V7 335 Filters * Schaffner model 3x200 V 3G3MV-PFI2010-SE 3G3MV-PFI2020-SE 3G3MV-PFI2030-SE 1x200 V 3G3MV-PFI1010-SE

3G3MV-PFI1020-SE 3G3MV-PFI1030-SE 3G3MV-PFI1040-SE 3x400 V 3G3MV-PFI3005-SE 3G3MV-PFI3010-SE 3G3MV-PFI3020-SE 3G3MV-

PFI3030-SE Dimensions A 194 169 174 169 169 174 174 169 169 174 304 B 82 111 144 71 111 144 144 111 111 144 184 C 50 50 50 45 50 50 50 45 45 50

56 D 160 135 135 135 135 135 135 264 E 181 156 161 156 156 161 161 156 156 161 288 F 62 91 120 51 91 120 150 91 91 120 150 G 5.



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D Option frame accessory for V7 IP65 Type Option frame Model V7TZ-FR1 Description Function · Frame accessory is needed when communication option unit or PLC option unit are used with Varispeed V7 IP65.



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