

CIMR-J7AZ

# Varispeed J7

## Small, simple and smart

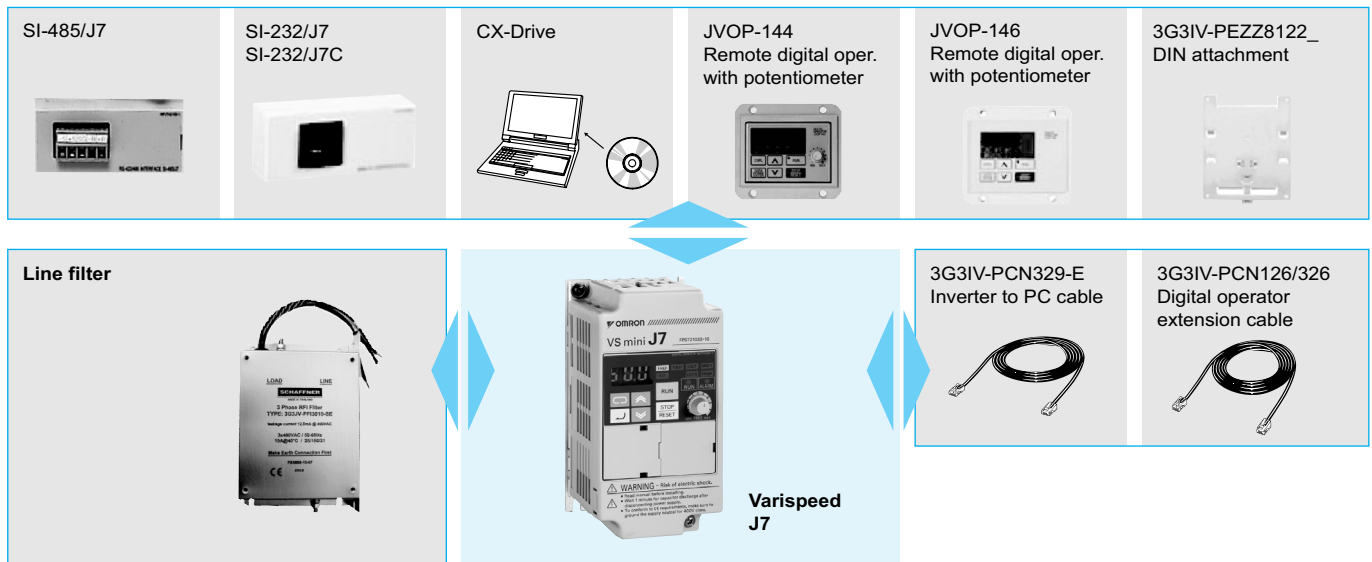
- V/f controlled inverter
- Compact size
- Good torque performance: 100% torque at 1.5 Hz, 150% at 3 Hz
- 150% overload / 60sec
- Overload detection function.
- Motor thermal function
- Freely configurable V/f curve
- 4 programmable digital input
- 1 programmable digital output
- 1 programmable analog output
- Optional RS-232C/485 communication - Modbus
- PC Configuration tool: CX-drive
- CE, UL, and cUL marking

## Ratings

- 200 V class single-phase 0.1 to 1.5 kW
- 200 V class three-phase 0.1 to 4.0 kW
- 400 V class three-phase 0.2 to 4.0 kW

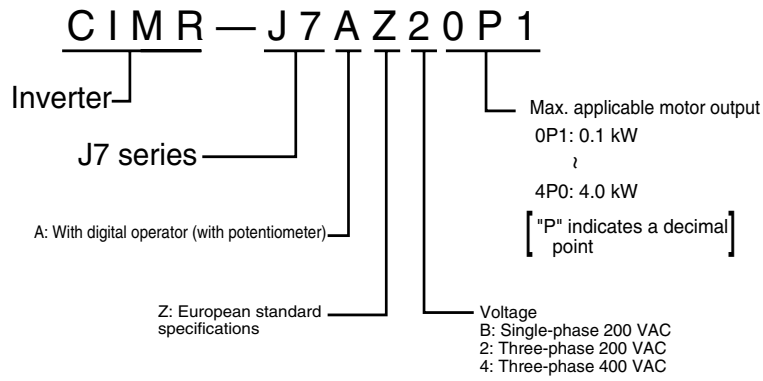


## System configuration



Specifications

Type designation

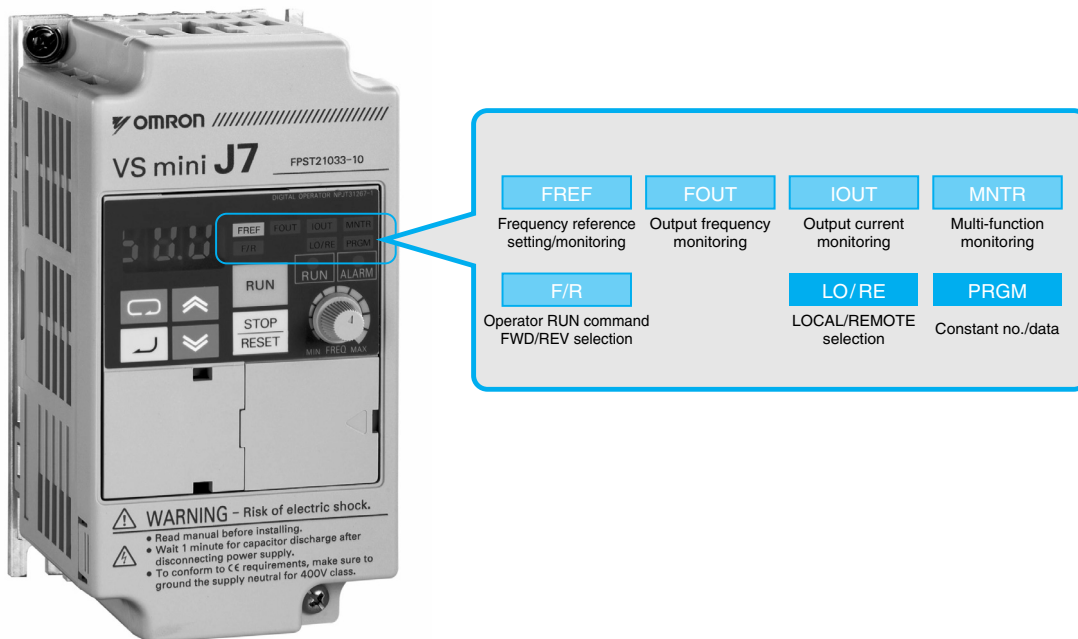
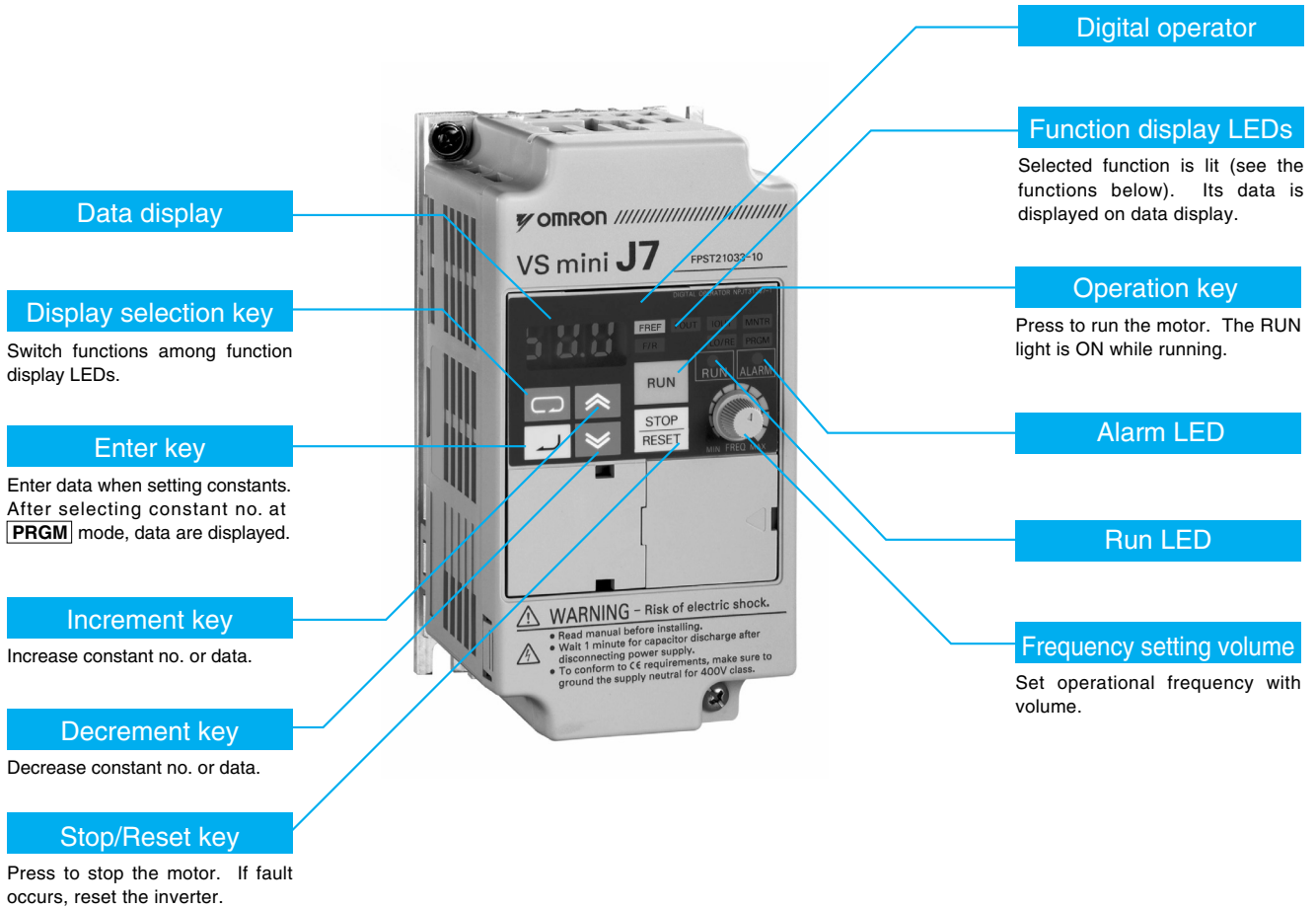


Voltage class		200 V single/three-phase							400 V three-phase						
Model CIMR-J7AZ□	Three-phase	20P1	20P2	20P4	20P7	21P5	22P2	24P0	40P2	40P4	40P7	41P5	42P2	43P0	44P0
	Single-phase <sup>1</sup>	B0P1	B0P2	B0P4	B0P7	B1P5	—	—	—	—	—	—	—	—	—
Max. applicable motor output kW (HP) <sup>2</sup>		0.12	0.25	0.55	1.1	1.5	2.2	4.0	0.37	0.55	1.1	1.5	2.2	3.0	4.0
Output characteristics	Inverter capacity kVA	0.3	0.6	1.1	1.9	3.0	4.2	6.7	0.9	1.4	2.6	3.7	4.2	5.5	7.0
	Rated output current A	0.8	1.6	3	5	8	11	17.5	1.2	1.8	3.4	4.8	5.5	7.2	9.2
	Max. output voltage V	3-phase, 200 to 230 V (proportional to input voltage) Single-phase, 200 to 240 V (proportional to input voltage)							3-phase, 380 to 460 V (proportional to input voltage)						
	Max. output frequency	400 Hz (programmable)													
Power supply	Rated input voltage and frequency	3-phase, 200 to 230 V, 50/60 Hz Single-phase, 200 to 240 V, 50/60 Hz							3-phase, 380 to 460 V, 50/60 Hz						
	Allowable voltage function	-15 to +10%													
	Allowable frequency function	±5%													

1. Single-phase series inverter output is three-phase (for three-phase motors)
2. Based on a standard 4-pole motor for max. applicable motor output. Select the inverter model whose rated current is larger than motor rated current.

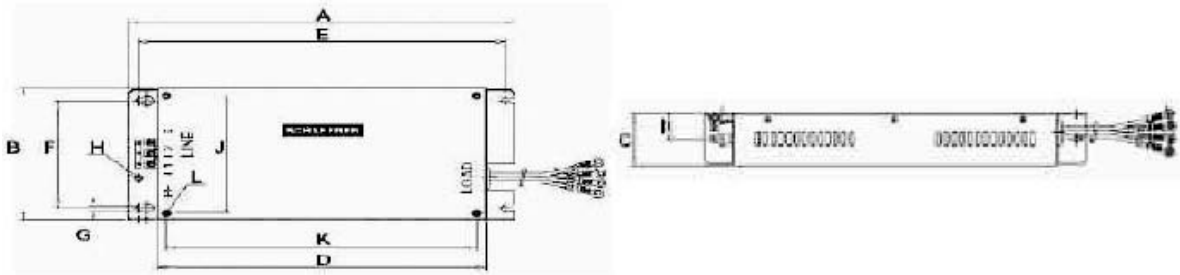


## Digital operator

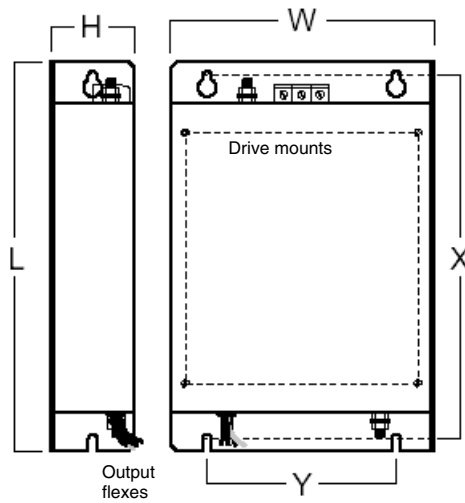




Filters



Schaffner model		Dimensions											
		A	B	C	D	E	F	G	H	I	J	K	L
3x200 V	3G3JV-PFI2010-SE	194	82	50	160	181	62	5.3	M5	25	56	118	M4
	3G3JV-PFI2020-SE	169	111	50	135	156	91	5.5	M5	25	96	118	M4
1x200 V	3G3JV-PFI1010-SE	169	71	45	135	156	51	5.3	M5	22	56	118	M4
	3G3JV-PFI1020-SE	169	111	50	135	156	91	5.3	M5	25	96	118	M4
3x400 V	3G3JV-PFI3005-SE	169	111	50	135	156	91	5.3	M5	22	96	118	M4
	3G3JV-PFI3010-SE	169	111	50	135	156	91	5.3	M5	22	96	118	M4
	3G3JV-PFI3020-SE	174	144	50	135	61	120	5	M5	28	128	118	M4

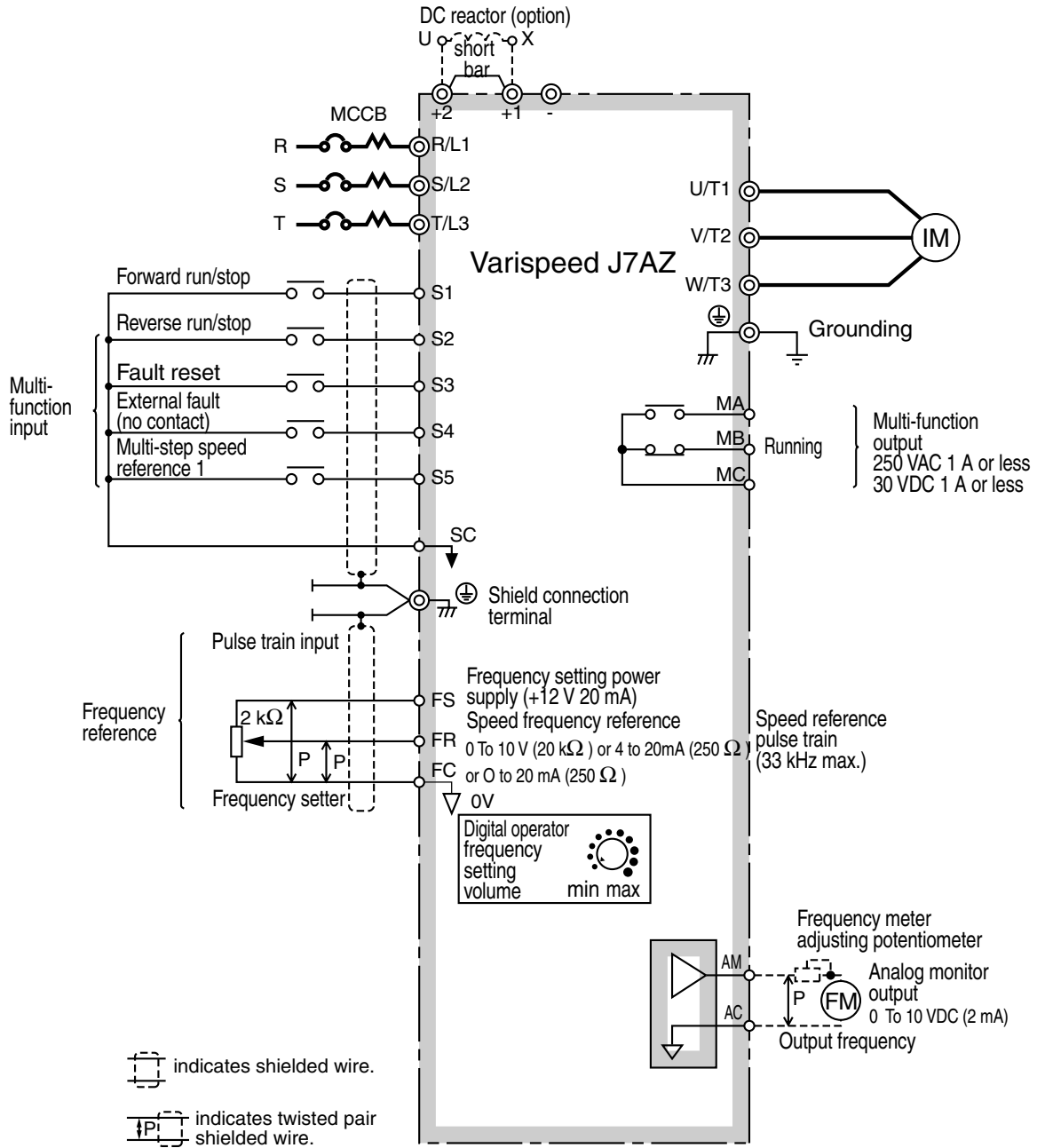


Rasmi model		Dimensions						Inverter fixing
		W	H	L	X	Y		
3x200 V	3G3JV-PFI2010-E	82	50	194	181	62	M5	
	3G3JV-PFI2020-E	111	50	169	156	91	M5	
	3G3JV-PFI2030-E	144	50	174	161	120	M5	
1x200 V	3G3JV-PFI1010-E	71	45	169	156	51	M5	
	3G3JV-PFI1020-E	111	50	169	156	91	M5	
3x400 V	3G3JV-PFI3005-E	111	50	169	156	91	M5	
	3G3JV-PFI3010-E	111	50	169	156	91	M5	
	3G3JV-PFI3020-E	144	50	174	161	120	M5	



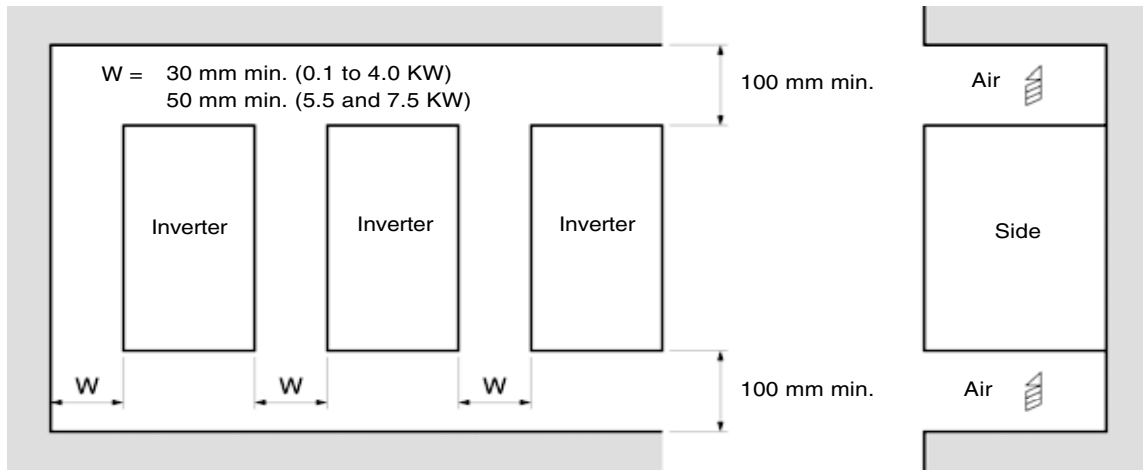
Installation

Standard connections



shows the connection for the following two kinds of sequence input (S1 to S5) signals: no-voltage contact and NPN transistors (0 V common). For a PNP transistor (+24 V common), a 24 V external power supply is necessary.





**Inverter heat loss**

**Three-phase 200 V class**

CIMR-J7AZ□		20P1	20P2	20P4	20P7	21P5	22P2	24P0
Inverter capacity kVA		0.3	0.6	1.1	1.9	3.0	4.2	6.7
Rated current A		0.8	1.6	3.0	5.0	8.0	11.0	17.5
Heat loss W	Fin	3.7	10.3	15.8	28.4	53.7	60.4	96.7
	Inside unit	9.3	18.0	12.3	16.7	19.1	34.4	52.4
	Total heat loss	13.0	18.0	28.1	45.1	72.8	94.8	149.1

**Single-phase 200 V class**

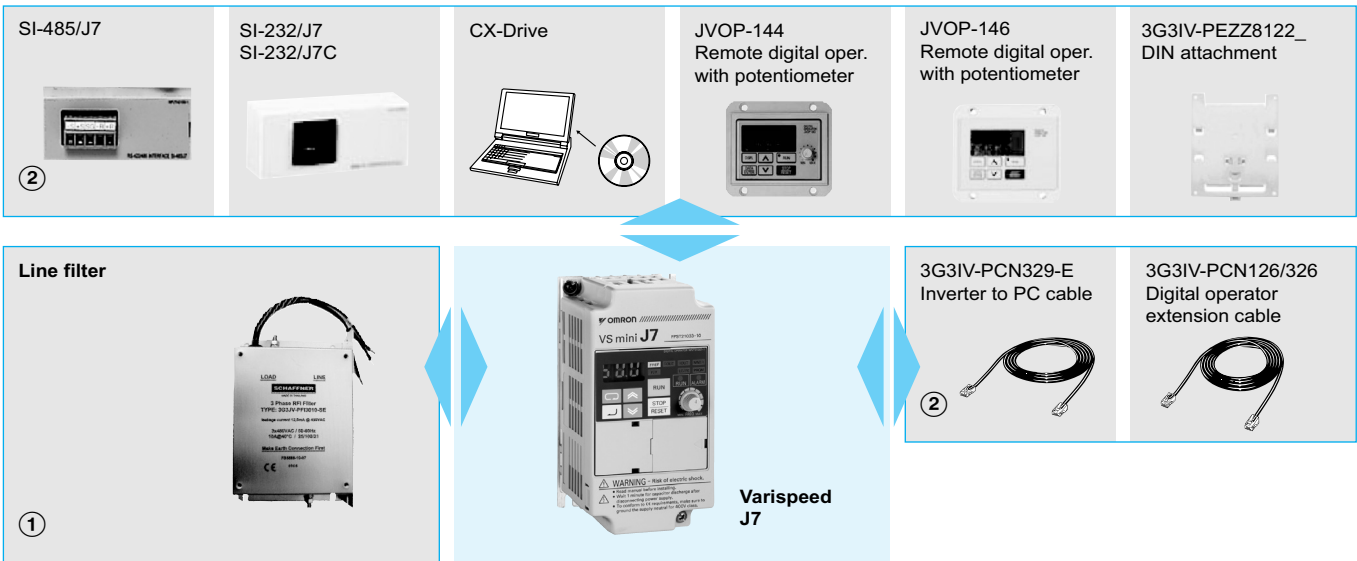
CIMR-J7AZ□		B0P1	B0P2	B0P4	B0P7	B1P5
Inverter capacity kVA		0.3	0.6	1.1	1.9	3.0
Rated current A		0.8	1.6	3.0	5.0	8.0
Heat loss W	Fin	3.7	7.7	15.8	28.4	53.7
	Inside unit	10.4	12.3	16.1	23.0	29.1
	Total heat loss	14.1	20.1	31.9	51.4	82.8

**Three-phase 400 V class**

CIMR-J7AZ□		40P2	40P4	40P7	41P5	42P2	43P0	44P0
Inverter capacity kVA		0.9	1.4	2.6	3.7	4.2	5.5	7.0
Rated current A		1.2	1.8	3.4	4.8	5.5	7.2	9.2
Heat loss W	Fin	9.4	15.1	30.3	45.8	50.5	58.2	73.4
	Inside unit	13.7	15.0	24.6	29.9	32.5	37.6	44.5
	Total heat loss	23.7	30.1	54.9	75.7	83.0	95.8	117.9



## Ordering information



## Varispeed J7



### 200 V

Specifications			Model
1x200 V	0.12 Kw	0.8 A	CIMR-J7AZB0P10
	0.25 Kw	1.6 A	CIMR-J7AZB0P20
	0.55 Kw	3.0 A	CIMR-J7AZB0P40
	1.1 Kw	5.0 A	CIMR-J7AZB0P70
	1.5 Kw	8.0 A	CIMR-J7AZB1P50
3x200 V	0.12 Kw	0.8 A	CIMR-J7AZ20P10
	0.25 Kw	1.6 A	CIMR-J7AZ20P20
	0.55 Kw	3.0 A	CIMR-J7AZ20P40
	1.1 Kw	5.0 A	CIMR-J7AZ20P70
	1.5 Kw	8.0 A	CIMR-J7AZ21P50
	2.2 Kw	11.0 A	CIMR-J7AZ22P20
	4.0 Kw	17.5 A	CIMR-J7AZ24P00

### 400 V

Specifications			Model
3x400 V	0.37 Kw	1.2 A	CIMR-J7AZ40P20
	0.55 Kw	1.8 A	CIMR-J7AZ40P40
	1.1 Kw	3.4 A	CIMR-J7AZ40P70
	1.5 Kw	4.8 A	CIMR-J7AZ41P50
	2.2 Kw	5.5 A	CIMR-J7AZ42P20
	3.0 Kw	7.2 A	CIMR-J7AZ43P00
	4.0 Kw	9.2 A	CIMR-J7AZ44P00



Type	Model	Description	Functions
Interface units	SI-232/J7 (3G3JV-PSI232J)	RS232 adapter	<p>Another option SI-232/J7C (3G3JV-PSI232JC) is available, the only difference is that this one is removable.</p>
	SI-485/J7 (3G3JV-PSI485J)	RS485 adapter	
Accessories	3G3IV-PCN126 3G3IV-PCN326	Digital operator extension cable 1 meter 3 meters	SI232/J7 must be connected
	3G3IV-PCN329-E	PC configuration cable	SI232/J7 must be connected

② Accessories

Type	Model	Description	Installation
Software	CX-drive	Computer software	Configuration and monitoring software tool for drives.
	CX-One	Computer software	Complete OMRON automation software including CX-drive.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.