

# Motor Controllers Variable Frequency AC Drives Type VariFlex<sup>2</sup> RVCF

CARLO GAVAZZI



- AC variable speed drive for use with AC induction motors
- Sensorless vector control or V/F mode, high starting torque
- Input voltage ranges: 1- ph 230VAC, 3-ph 230VAC, 3-ph 480VAC
- 150%/1Hz (Vector mode) starting torque
- Simple Built-in PLC function always available
- PID function available
- Conforms to EMI radio standard and EMS immunity standard EN 61800-3 for the second environment (Industrial sites)
- All Parameters accessible both via Keypad and PC
- 6 different physical frame sizes
- RS232 or RS485 MODBus RTU/ASCII serial communications available on all models through an option card
- Speed Setting by buttons and knob
- Optional EMC filter internal built-in available for some items
- Memory stick (Copy card) option for fast and accurate drive to drive parameter transfer and storage
- NPN/PNP digital inputs
- DIN rail or panel mounting and keypad extension available on all models

RVCF

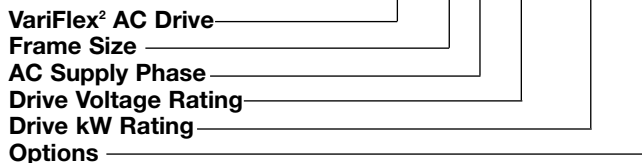
## General description

The VariFlex<sup>2</sup> RVCF series is a simple, compact and general purpose AC variable speed drive for use with 3-phase AC induction motors. The drive's parameters are logically divided in fifteen different groups for a simple and immediate setting of the devices according to the needs of the process. The standard display of the drive can be removed by the extension cable and put outside the cabinet where the drive is

installed. A full range of product spreading from 0.4kW/0.5HP up to 55kW/75HP with single and 3-phase AC input 230VAC and 3-phase AC input 480VAC. The VariFlex<sup>2</sup> employs state of the art microprocessor technology which controls all drive functions. All printed circuit boards are coated and manufactured using surface mount technology ensuring high quality and reliability.

## Ordering Key

**RVCF B 3 40 0220 F**



## Approvals



## Type Selection

Frame Size	AC Supply Phase	Drive Voltage Rating	Drive kW Rating	Options
A: Size 1	1: 1-phase	20: 230VAC	0040: 0.40kW, 0.50HP	Nil: Without options
B: Size 2	3: 3-phase	40: 480VAC	0075: 0.75kW, 1HP	F: Built-in filter
C: Size 3			0150: 1.50kW, 2HP	
D: Size 4			0220: 2.20kW, 3HP	
E: Size 5			0370: 3.70kW, 5HP	
F: Size 6			0550: 5.50kW, 7.5HP	
			0750: 7.50kW, 10HP	
			1100: 11.0kW, 15HP	
			1500: 15.0kW, 20HP	
			1850: 18.5kW, 25HP	
			2200: 22.0kW, 30HP	
			3000: 30.0kW, 40HP	
			3700: 37.0kW, 50HP	
			4500: 45.0kW, 60HP	
			5500: 55.0kW, 75HP	

## Selection Guide

Voltage Rating	AC Supply Phase	Motor Rating	Frame Size							
			Size 1	Size 2	Size 3	Size 4	Size 5	Size 6		
200 - 240VAC (+10% -15%)	1-Phase	0.40kW, 0.50HP	RVCFA1200040	-	-	-	-	-		
			RVCFA1200040F	-	-	-	-	-		
		0.75kW, 1.0HP	RVCFA1200075	-	-	-	-	-		
			RVCFA1200075F	-	-	-	-	-		
		1.5kW, 2.0HP	-	RVCFB1200150	-	-	-	-		
			-	RVCFB1200150F	-	-	-	-		
		2.2kW, 3.0HP	-	RVCFB1200220	-	-	-	-		
			-	RVCFB1200220F	-	-	-	-		
		200 - 240VAC (+10% -15%)	3-Phase	0.40kW, 0.50HP	RVCFA3200040	-	-	-	-	-
				0.75kW, 1.0HP	RVCFA3200075	-	-	-	-	-
1.5kW, 2.0HP	RVCFA3200150			-	-	-	-	-		
2.2kW, 3.0HP	-			RVCFB3200220	-	-	-	-		
3.7kW, 5.0HP	-			RVCFB3200370	-	-	-	-		
5.5kW, 7.5HP	-			-	RVCFC3200550	-	-	-		
7.5kW, 10HP	-			-	RVCFC3200750	-	-	-		
11.0kW, 15HP	-			-	-	RVCFD3201100	-	-		
15.0kW, 20HP	-			-	-	RVCFD3201500	-	-		
18.5kW, 25HP	-			-	-	RVCFD3201850	-	-		
22.0kW, 30HP	-			-	-	-	RVCFE3202200	-		
30.0kW, 40HP	-	-	-	-	RVCFE3203000	-				
380 - 480VAC (+10% -15%)	3-Phase	0.75kW, 1.0HP	RVCFA3400075	-	-	-	-	-		
			RVCFA3400075F	-	-	-	-	-		
		1.5kW, 2.0HP	RVCFA3400150	-	-	-	-	-		
			RVCFA3400150F	-	-	-	-	-		
		2.2kW, 3.0HP	-	RVCFB3400220	-	-	-	-		
			-	RVCFB3400220F	-	-	-	-		
		3.7kW, 5.0HP	-	RVCFB3400370	-	-	-	-		
			-	RVCFB3400370F	-	-	-	-		
		5.5kW, 7.5HP	-	-	RVCFC3400550	-	-	-		
			-	-	RVCFC3400550F	-	-	-		
		7.5kW, 10HP	-	-	RVCFC3400750	-	-	-		
			-	-	RVCFC3400750F	-	-	-		
		11.0kW, 15HP	-	-	RVCFC3401100	-	-	-		
			-	-	RVCFC3401100F	-	-	-		
		15.0kW, 20HP	-	-	-	RVCFD3401500	-	-		
		18.5kW, 25HP	-	-	-	RVCFD3401850	-	-		
		22.0kW, 30HP	-	-	-	RVCFD3402200	-	-		
		30.0kW, 40HP	-	-	-	-	RVCFE3403000	-		
37.0kW, 50HP	-	-	-	-	RVCFE3403700	-				
45.0kW, 60HP	-	-	-	-	-	RVCFF3404500				
55.0kW, 75HP	-	-	-	-	-	RVCFF3405500				

## Input / output data

	<b>RVCFA1200040</b>	<b>RVCFA1200075</b>	<b>RVCFB1200150</b>	<b>RVCFB1200220</b>
Nominal motor power	0.40kW	0.75kW	1.5kW	2.2kW
Horsepower rating	0.50HP	1.0HP	2.0HP	3.0HP
Input Current	8.5A	12A	16A	23.9A
Rated Output Current	3.1A	4.5A	7.5A	10.5A
Rated Capacity	1.2kVA	1.7kVA	2.9kVA	4.0kVA
AC Supply Voltage and Frequency	1-phase; 200V÷240V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷240V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	<b>RVCFA3200040</b>	<b>RVCFA3200075</b>	<b>RVCFA3200150</b>	<b>RVCFB3200220</b>
Nominal motor power	0.40kW	0.75kW	1.5kW	2.2kW
Horsepower rating	0.50HP	1.0HP	2.0HP	3.0HP
Input Current	4.5A	6.5A	11.0A	12.5A
Rated Output Current	3.1A	4.5A	7.5A	10.5A
Rated Capacity	1.2kVA	1.7kVA	2.9kVA	4.0kVA
AC Supply voltage and frequency	3-phase; 200V÷240V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷240V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	<b>RVCFB3200370</b>	<b>RVCFC3200550</b>	<b>RVCFC3200750</b>	<b>RVCFD3201100</b>
Nominal motor power	3.7kW	5.5kW	7.5kW	11.0kW
Horsepower rating	5.0HP	7.5HP	10.0HP	15.0HP
Input Current	20.5A	33.0A	42.0A	57.0A
Rated Output Current	17.5A	26.0A	35.0A	48.0A
Rated Capacity	6.7kVA	9.9kVA	13.3kVA	20.6kVA
AC Supply Voltage and Frequency	3-phase; 200V÷240V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷240V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	<b>RVCFD3201500</b>	<b>RVCFD3201850</b>	<b>RVCFE3202200</b>	<b>RVCFE3203000</b>
Nominal motor power	15.0kW	18.5kW	22.0kW	30.0kW
Horsepower rating	20.0HP	25.0HP	30.0HP	40.0HP
Input Current	70.0A	85.0A	108.0A	138.0A
Rated Output Current	64.0A	80.0A	96.0A	130.0A
Rated Capacity	27.4kVA	34.0kVA	41.0kVA	54.0kVA
AC Supply Voltage and Frequency	3-phase; 200V÷240V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷240V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

## Input / output data

	RVCFA3400075	RVCFA3400150	RVCFB3400220	RVCFB3400370
Nominal motor power	0.75kW	1.5kW	2.2kW	3.7kW
Horsepower rating	1.0HP	2.0HP	3.0HP	5.0HP
Input Current	4.2A	5.6A	7.3A	11.6A
Rated Output Current	2.3A	3.8A	5.2A	8.8A
Rated Capacity	1.7kVA	2.9kVA	4.0kVA	6.7kVA
AC Supply Voltage and Frequency	3-phase; 380V÷480V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷480V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	RVCFC3400550	RVCFC3400750	RVCFC3401100	RVCFD3401500
Nominal motor power	5.5kW	7.5kW	11.0kW	15.0kW
Horsepower rating	7.5HP	10.0HP	15.0HP	20.0HP
Input Current	17.0A	23.0A	31.0A	38.0A
Rated Output Current	13.0A	17.5A	25.0A	32.0A
Rated Capacity	9.9kVA	13.3kVA	19.1kVA	27.4kVA
AC Supply voltage and frequency	3-phase, 380V÷480V, +10% -15% (50/60Hz)			
Output Voltage and Frequency	3-phase; 0÷480V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	RVCFD3401850	RVCFD3202200	RVCFE3403000	RVCFE3403700
Nominal motor power	18.5kW	22.0kW	30.0kW	37.0kW
Horsepower rating	25.0HP	30.0HP	40.0HP	50.0HP
Input Current	48.0A	56.0A	75.0A	92.0A
Rated Output Current	40.0A	48.0A	64.0A	80.0A
Rated Capacity	34.0kVA	41.0kVA	54.0kVA	68.0kVA
AC Supply Voltage and Frequency	3-phase; 380V÷480V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷480V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

	RVCFF3404500		RVCFF3405500	
Nominal motor power	45.0kW		55.0kW	
Horsepower rating	60.0HP		75.0HP	
Input Current	112.0A		142.0A	
Rated Output Current	96.0A		128.0A	
Rated Capacity	82.0kVA		110.0kVA	
AC Supply Voltage and Frequency	3-phase; 380V÷480V, +10% -15%; 50/60Hz, ± 5%			
Output Voltage and Frequency	3-phase; 0÷480V; 0.1÷650Hz			
Input Displacement Factor (cos φ)	> 0.97			

## General Data

	RVCFA1200040	RVCFA1200075	RVCFB1200150	RVCFB1200220	RVCFA3200040
Recommended Max RK5 fuse	10A	15A	20A	25A	8A
Recommended Max CC or T fuse	20A	30A	40A	50A	10A
Weight (with embedded filter) kg/lb	1.2(1.3)/2.65(2.87)	1.2(1.3)/2.65(2.87)	1.5(1.8)/3.31(3.97)	1.9(2.3)/4.19(5.07)	1.2/2.65
Mounting type	DIN-rail and Panel				
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	1.0	1.0	2.0	2.0	1.0
	RVCFA3200075	RVCFA3200150	RVCFB3200220	RVCFB3200370	RVCFC3200550
Recommended Max RK5 fuse	12A	15A	20A	30A	50A
Recommended Max CC or T fuse	15A	20A	30A	50A	60A
Weight (with embedded filter) kg/lb	1.2/2.65	1.2/2.65	1.75/3.86	1.9/4.19	5.6/12.35
Mounting type	DIN-rail and Panel				Panel
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	1.0	2.0	2.0	2.0	2.0
	RVCFC3200750	RVCFD3201100	RVCFD3201500	RVCFD3201850	RVCFE3202200
Recommended Max RK5 fuse	60A	80A	100A	125A	160A
Recommended Max CC or T fuse	70A	100A	125A	150A	200A
Weight (with embedded filter) kg/lb	5.6/12.35	15/33.01	15/33.01	15/33.01	33/72.75
Mounting type	Panel				
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	2.0	2.0	2.0	2.0	2.0

<sup>1</sup> The setting resolution of above 100Hz is 0.1Hz when controlled with operation keypad, and 0.1Hz when controlled using computer (PC) or programmable computer (PLC).

## General Data

	RVCFE3203000	RVCFA3400075	RVCFA3400150	RVCFB3400220	RVCFB3400370
Recommended Max RK5 fuse	200A	6A	10A	10A	20A
Recommended Max CC or T fuse	250A	10A	15A	20A	30A
Weight (with embedded filter) kg/lb	34/74.96	1.2(1.3)/2.65(2.87)	1.2(1.3)/2.65(2.87)	1.8(2.2)/3.97(4.85)	1.8(2.2)/3.97(4.85)
Mounting type	Panel	DIN-rail and Panel			
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	2.0	1.0	1.0	2.0	2.0

	RVCF3400550	RVCF3400750	RVCF3401100	RVCFD3401500	RVCFD3401850
Recommended Max RK5 fuse	25A	30A	50A	60A	70A
Recommended Max CC or T fuse	35A	50A	60A	70A	80A
Weight (with embedded filter) kg/lb	5.6(6.6)/12.35(14.55)	5.6(6.6)/12.35(14.55)	5.6(6.6)/12.35(14.55)	15/33.01	15/33.01
Mounting type	Panel				
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	2.0	2.0	2.0	2.0	2.0

	RVCFD3402200	RVCFE3403000	RVCFE3403700	RVCF3404500	RVCF3405500
Recommended Max RK5 fuse	80A	100A	125A	150A	200A
Recommended Max CC or T fuse	100A	125A	150A	200A	250A
Weight (with embedded filter) kg/lb	15/33.01	33/72.75	33/72.75	50/110.23	50/110.23
Mounting type	Panel				
Integrated cooling fan	yes				
Frequency range	0.1~650Hz				
Frequency setting resolution	Digital: 0.01Hz <sup>1</sup> ; Analogue: 0.06Hz/60Hz (10bits)				
Switching frequency	2~16kHz (factory setting 10KHz, >10KHz with derating)				
Accel. / Decel. Time	Two-stage ac/dec time (0.1~3.6sec) and two-stage S curve				
Display	4 digit / 7 segments				
Keypad / LED	7 keypad / 8 LEDs				
Frequency setting mode	Set directly with UP/DOWN keys or by Knob on keypad or setting through external analogue signal				
Max. Momentary Power Loss Time	2.0	2.0	2.0	2.0	2.0

<sup>1</sup> The setting resolution of above 100Hz is 0.1Hz when controlled with operation keypad, and 0.1Hz when controlled using computer (PC) or programmable computer (PLC).

## Environmental Data

Operating temperature	-10°C to +50°C (+14°F to +122°F)
Storage temperature	-20°C to +60°C (-4°F to +140°F) for max. 12 months
Max. Relative Humidity	95% (non-condensing)
Cooling	Forced ventilation with fans
Degree of Protection	IP00 or IP20 (Nema 1 by external upper cover only for size "A" and "B")
Pollution Degree	2
Installation Category	230VAC: Ground Class III 480VAC: Special Ground Class
Max. altitude	1000m (3250ft)
Vibration	1G - 9.8m/s <sup>2</sup>

## General Functions

Control Mode	Sensorless Vector Control (starting torque: 150%/1Hz in Vector mode)
Frequency setting mode:	Up to six different modes, via keypad or remote
Output frequency limit function	Respectively setting upper/lower frequency limits and two-stage prohibited frequencies
Control Features	8 Preset speeds, Acc/Dec switch (2 stages), S curve, 3-wire control, PID control, Torque boost, Slip compensation, Frequency Upper/Lower limit, Auto energy saving, MODBus slave and PC Link, Auto restart, Built-in PLC

## Optionals

Description	Code
AC Drive RS485 option card	<b>RVFSIF485</b>
AC Drive RS232 adapter	<b>RVFSIF232</b>
AC Drive Program copy unit	<b>RVFSIFMP</b>
AC Drive Keypad extension cable 1m	<b>RVFSW3001</b>
AC Drive Keypad extension cable 3m	<b>RVFSW3003</b>
AC Drive Keypad extension cable 5m	<b>RVFSW3005</b>
AC Drive RVCF 230VAC brake unit device	<b>RVCFTBU230</b>
AC Drive RVCF 480VAC brake unit device	<b>RVCFTBU430</b>
AC Drive Demo Case	<b>RVFDEMO</b>
AC Drive Control Box	<b>RVFCONTRBOX</b>

## Protection Functions

Over current	Inverter rated current 150%/1min
Over voltage	230V class: DC voltage > 410V; 460V class: DC voltage > 820V
Under voltage	230V class: DC voltage < 190V; 460V class: DC voltage < 380V
Momentary power loss function	Stop for more than 15ms - power loss can be restarted with Speed Search after momentary power loss in max. 2s
Stall prevention	ACC/DEC/operation stall prevention and stall prevention level
Output terminal short circuit	Electronic circuit protection
Other function	Electronic circuit protection for grounding fault, Protection for heat sink overheating, Over torque detection, Error contact control, Reverse restriction, Restriction for direct start after power up and error recovery, Parameter lock-up

## Terminal Layout



- 1: Multifunction I/O
- 2: Communication Port
- 3: Input Terminals (Main Supply)
- 4: DC Reactor Terminals
- 5: Brake Resistor Terminals
- 6: Output Terminals (Motor)

## Connection Diagrams

Diagram 1

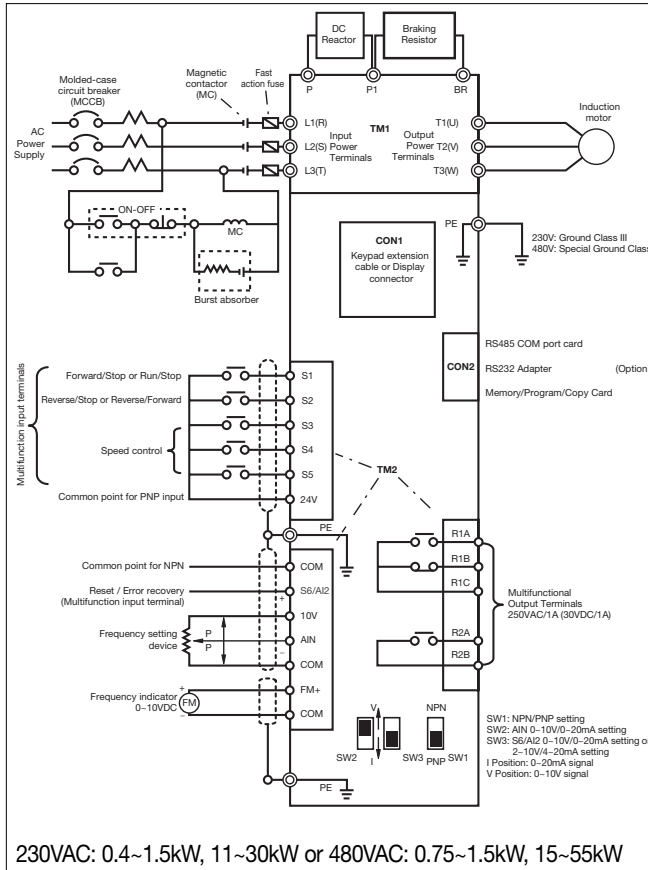
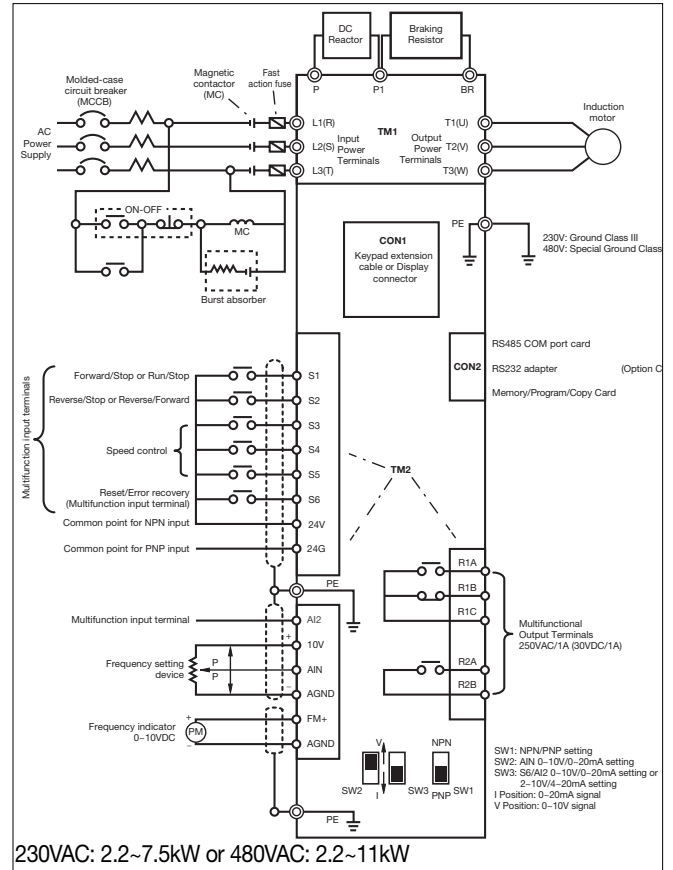
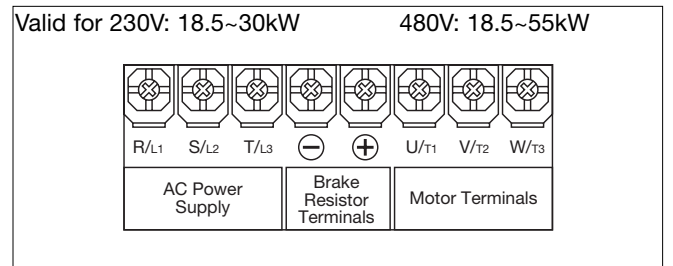
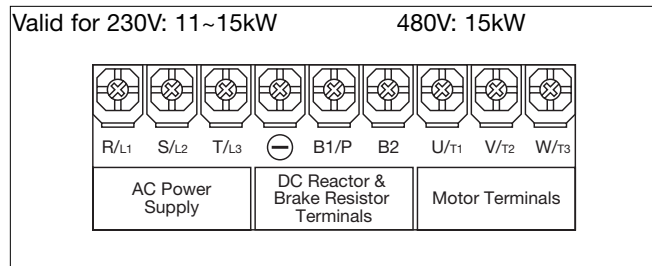


Diagram 2



## In/Out Power Terminals (TM1)



## Wiring Description

### Descriptions of control circuit terminals (TM2)

Symbol	Function Description
S1	Multifunction input terminals (S5 = Encoder input terminal, Encoder voltage range: 19.2V~24.7V)
S2	
S3	
S4	
S5	
S6	Multifunction Input Terminal: Digital Input Terminal (H level:>8V, L level:<2V, PNP only) or Analogue Input Terminal AI2(0~10VDC/4~20mA)



## Wiring Description



### Descriptions of control circuit terminals (TM2)

Symbol	Description	
R2A	Multifunctional terminal – Normal open contact	
R2B		
R1C	Common contact	Multifunctional output terminals
R1B	Normal close contact	
R1A	Normal open contact	
10V	Frequency knob (VR) power source terminal	
AIN	Multifunction analogue frequency signal input terminal (H level:>8V, L level:<2V, PNP input mode only)	
24V	Common contact for S1~S5 (refer to Connection Diagram 1) / S6 (refer to Connection Diagram 2) in PNP (Source) input mode. Shift to PNP position (refer to wiring diagram) of SW1 when PNP input mode is set.	
COM	1. Common contact and analogue input/output signal for S1~S5 in NPN (Sink) mode (refer to Connection Diagram 1) Shift SW1 to NPN position when NPN mode input is set.	
24G	2. AGND for AIN, AI2 and FM+ (analogue input/output signal) & 24G for S1~S6 digital input/output signal in NPN (Sink) input mode (refer to Connection Diagram 2). Shift SW1 to NPN position when NPN input mode is set.	
AGND		
FM+	The positive analogue output for multifunction, the signal for output terminal is 0-10VDC ( $\leq 2\text{mA}$ ).	



### Descriptions of main circuit terminals (TM1)

Symbol	Description	
R / L1 ( L )	Main power input:      Single-phase:    L/N Three-phase:    L1/L2/L3	
S / L2		
T / L3 ( N )		
P1	Braking resistor connecting terminal: used when the inverter frequently disconnects due to large load inertia or short deceleration time	For 230V: 0.4~7.5kW, 480V: 0.75~11kW
BR		
P1/ P	DC reactor connecting terminals	
B1/P	B1/P-⊖:    DC power supply input	⊖ - ⊕ : DC power supply input or External braking unit. Valid for 230V: 18.5~30kW and 480V: 18.5~55kW
B2	B1/P-B2:    External braking resistor	
⊖	Valid for 230V: 11~15kW and 480V: 15kW	
⊕	-	
U / T1	Inverter outputs (motor connectors)	
V / T2		
W / T3		

### Descriptions of Switches functions (SW1~SW3)

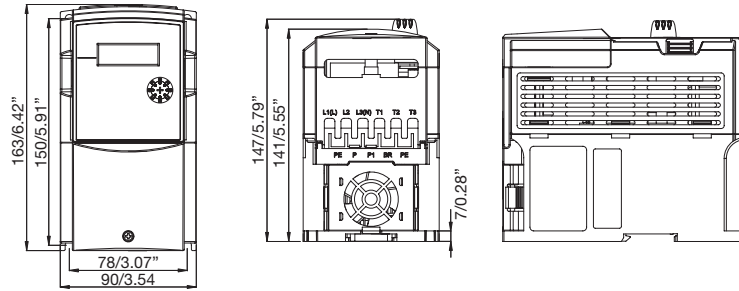
SW1	Type of external signal	Remarks
	NPN (SINK) input	
	PNP (SOURCE) input	Factory default setting

### Descriptions of Switches functions

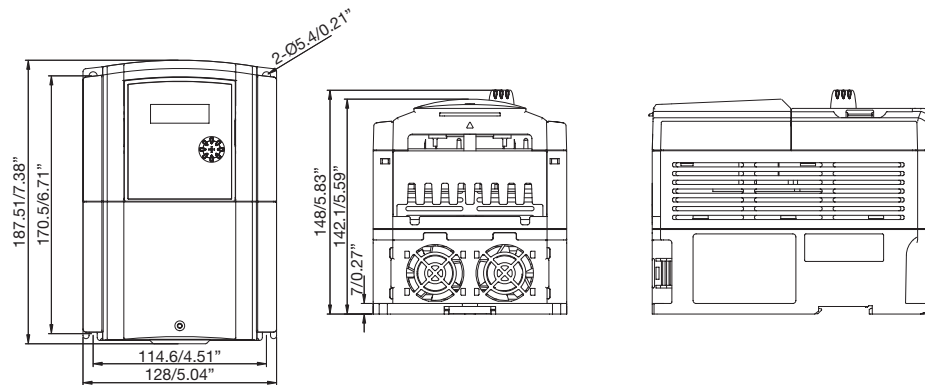
SW2/SW3	Type of external signal	Remarks
	0~10VDC analogue signal	Factory default setting
	0~20mA analogue signal	

## Dimensions (mm/inches)

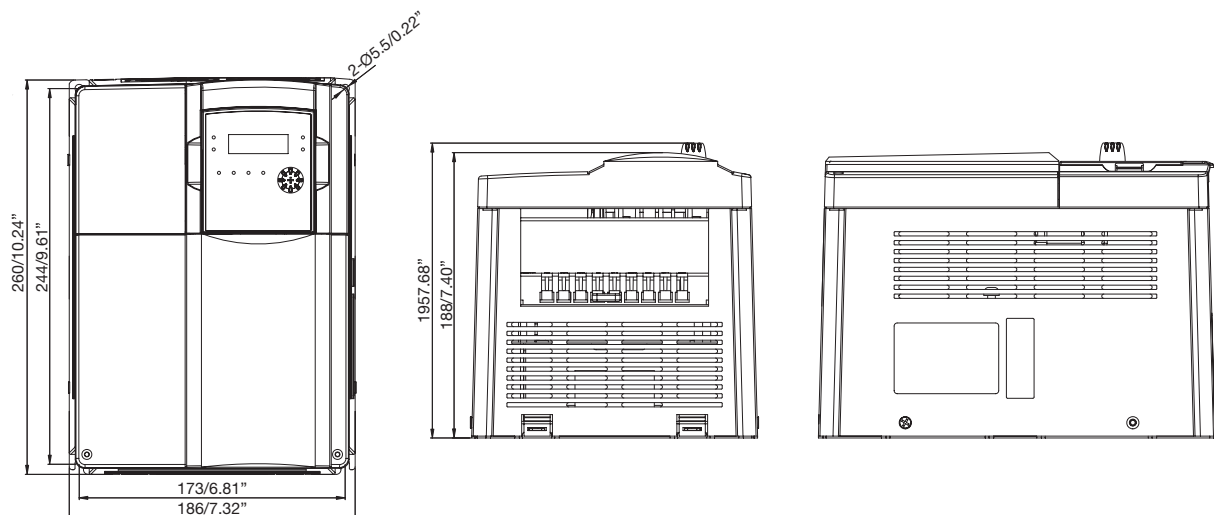
Size "A"



Size "B"

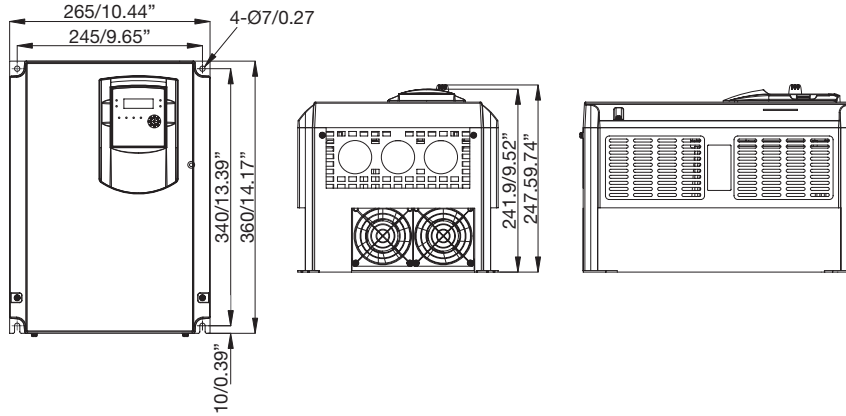


Size "C"

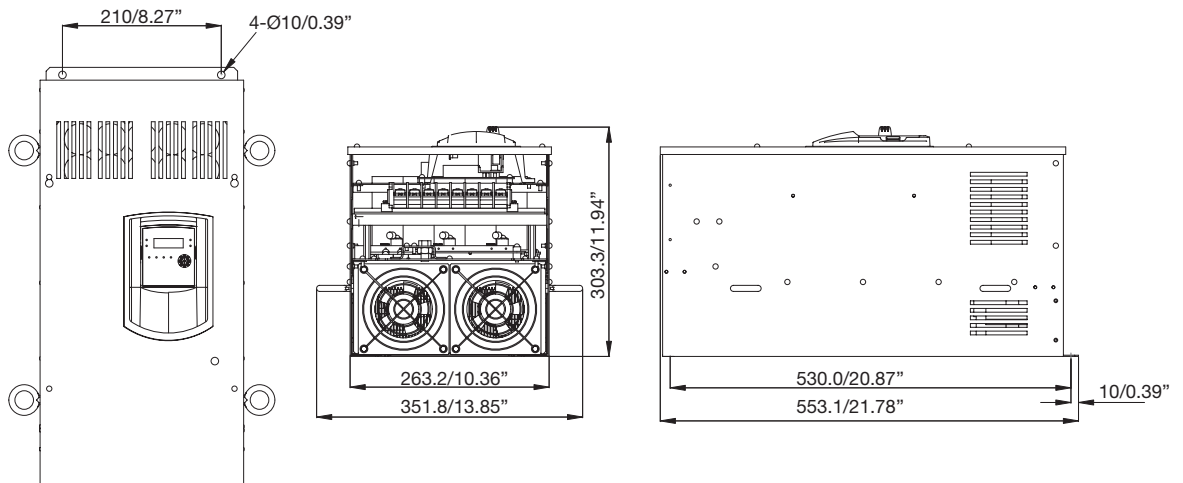


## Dimensions (mm/inches)

Size "D"



Size "E"



Size "F"

