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There's about 5,000 points on a VFD. They get crazy. **I had one.** One point. I clicked one button. I was done."

— HVAC Technician



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Increase IEER by 20% with Climatix VFDs

Designed specifically for use in new or existing rooftop unit fan applications, Climatix controller-driven VFDs provide the energy efficiency needed. They are easily integrated, compact and cost effective. With other VFDs, setup may include programming 80+ parameters.

With Climatix, the controller is preset with the key parameters for RTU operation and only requires VFD configuration with 10 or fewer parameters for Induction Motors; 25 or fewer for Permanent Magnet motors.

The Climatix mobile app completes programming with a press of the button. Combine with Climatix IC remote monitoring and you always know the exact VFD setting and RTU fan performance.

Visit usa.siemens.com/climatix-vfd to learn more.

Download
Climatix
mobile app



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App Store



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Variable Frequency Drives



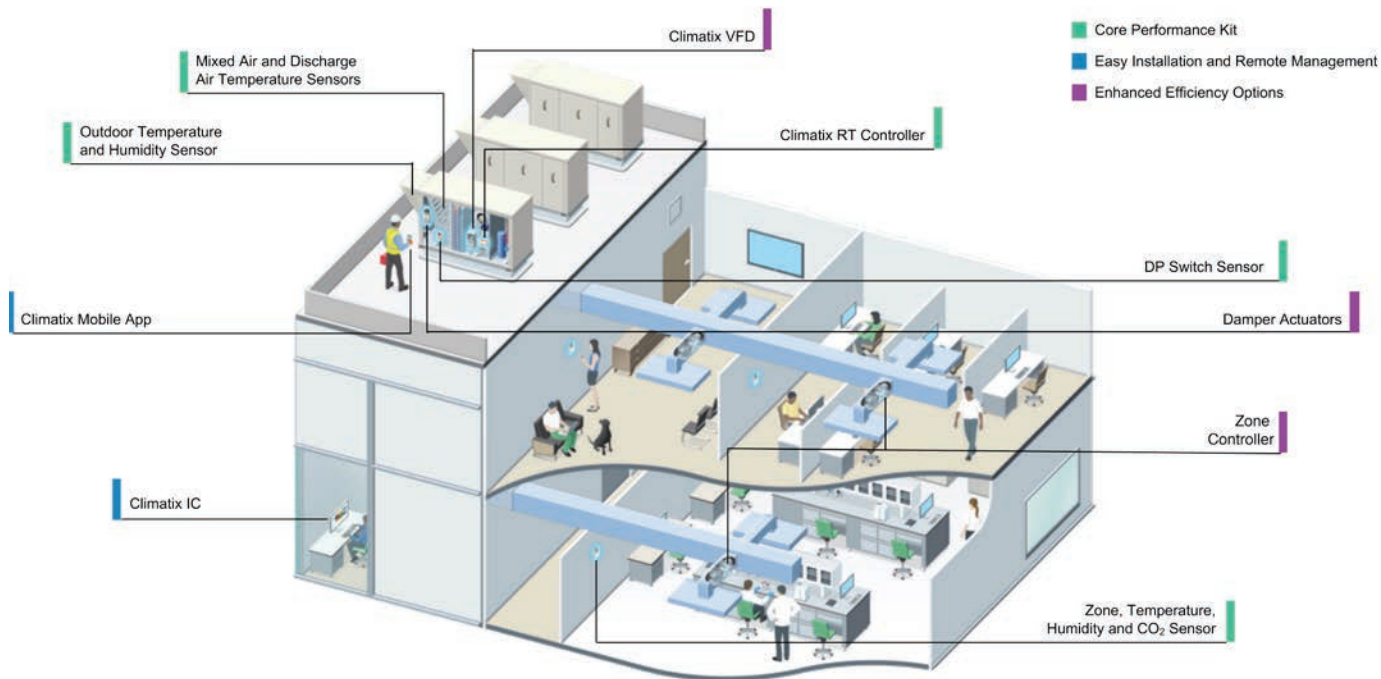
The Climatix VFD is designed for use with the Climatix RTU solution and provides the simplest commissioning and system integration in the industry. Commissioned with an easy to use mobile app, this VFD is perfect to meet the latest roof top unit efficiency requirements. The rooftop unit sequence of operations is specially programmed into the Climatix RT controller enabling contractors to save hundreds of hours in training and commissioning. Learn it in a day and be on your way to simplified service and maintenance for more rooftop units.

The Climatix VFD Microdrive has just the right functionality to simplify rooftop unit efficiency for fans up to 30HP. The Climatix VFD key features include:

- First HVAC VFD Solution Mobile App
- Commissioning in 5 min or less
- Standard Safe Torque Off
- Conformal Coated PCB's to protect against dust and moisture accumulation
- Real time status monitoring with pre-configured Climatix IC dashboard.

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Variable Frequency Drives



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Climatix RTU Solution — Designed to make contractors more efficient and faster

The Climatix RTU solution is designed to be used with minimal interaction. The kit you order includes the Climatix RT controller paired with zone sensors for demand-controlled ventilation plus sensors for temperature, humidity and differential pressure. This kit addresses core RTU performance optimization. You have the option to include the Climatix VFD for enhanced efficiency and damper actuators for reliable, long-lasting fresh air management.

Visit usa.siemens.com/rtu to learn more.

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Climatix Variable Frequency Drives



Description

The Climatix VFD series is designed specifically for use in new or existing rooftop unit fan applications to provide the energy efficiency needed in an easily integrated, compact, cost-effective VFD. It leverages the Climatix RT controller to simplify commissioning, monitoring, and troubleshooting.

Features

Compact Form

Designed to fit nicely in tight spaces with a size 40% smaller than other VFDs – ideal for RTU retrofits.

Conformal Coated PCBs

Durable in harsh environments, the Climatix VFD printed circuit boards are built to withstand dust and moisture build-up.

Ease of Use

- Easy commissioning with Climatix mobile app
- Compatible with existing induction motor or permanent magnet motors
- VFD configuration for induction motors with 10 or fewer parameters (25 or fewer for permanent magnet motors)
- Real-time status monitoring with pre-configured Climatix IC dashboards
- Easy access to boards via screwless front cover
- Removeable fan for easy maintenance
- Flexible mounting options for easy installation

Additional Features

- Built-in Safe Torque Off (STO)
- Multi-motor control – up to 4 motors
- Built-in PID
- Phase loss protection
- Plenum rated
- DC braking
- Operating temperature -4° to 122° F (-20° to 50° C) without derating
- Certifications: UL, CE, RCM, TUV (SIL 2), RoHS, REACH

Accessories

- Replacement fan kit VFD frames B-E
- EMC filter
- Remote mounting kit
- Line / load reactors
- DC choke

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Variable Frequency Drives

Specifications

Input Voltages and Power Ranges (3-phase)

0.25-1 HP 115VAC (-15% +10%) 1-ph
 0.25-3 HP 230VAC (-15% +10%) 1-ph
 0.25-20 HP 230VAC (-15% +10%) 3-ph
 0.5-30 HP 460VAC (-15% +10%) 3-ph

Input Frequency.....50/60 HZ

Output Frequency.....0 – 599 Hz

Max Output Frequency.....Standard model: 599.00 Hz /
 High speed model: 1500.0 Hz
 (with derating, V/F control only)

Overload Capacity.....Normal duty: 120% 60s, 150% 3s
 Heavy duty: 150% 60s, 200% 3s

Carrier Frequency.....2-15 KHz (Default 4)

Speed Control Mode.....1 : 50 (V/f, SVC control for IM, Heavy duty)
 1 : 20 (SVC control for PM, Heavy duty)

Starting Torque.....150% / 3 Hz (V/f, SVC control for IM, Heavy duty)
 100% / (1/20 of motor rated frequency)
 (SVC control for PM, Heavy duty)

Ambient Operating Temperature.....-4° – +122° F (-20° - +50° C)
 -4° – +140° F (-20° - +60° C) with derating

Storage Temperature.....-4° – +122° F (-20° - +50° C)
 140° (60° C) with derating

Relative Humidity

Operation.....Max 90%
 Storage/Transportation.....Max 95%

Altitude.....1000m/3280ft (>1000m w/ derating)

Vibration.....IEC60068-2-6: 2Hz~13.2Hz: 1mm, peak-peak
 13.2Hz~55Hz: 0.7G~2.0G
 55Hz~512Hz: 2.0G

Enclosures Class.....IP20, IP21 Kit Future release

Motor Compatibility.... Induction motors (IM), interior permanent magnet
 (IPM) motors, and surface permanent magnet (SPM) motors

Braking.....DC Injection Braking

Protections.....Over-current, Over-voltage, Over-temperature,
 Phase loss, Stall prevention

Certifications.....UL, cUL, CE, RoHS, REACH, C-Tick

Catalog Number Builder

Example Product Number

R T 0 0 1 X - 1 1 N

Family	
Rooftop	
Power Rating	
0002 – 0.25 HP	
0005 – 0.50 HP	
001X – 1 HP	
002X – 2 HP	
003X – 3 HP	
005X – 5 HP	
0075 – 7.5 HP	
010X – 10 HP	
015X – 15 HP	
020X – 20 HP	
025X – 25 HP	
030X – 30 HP	
Separator	
Voltage	
11 – 115V 1-ph	
21 – 230V 1-ph	
23 – 230V 3-ph	
43 – 460V 3-ph	
53 – 575V 3-ph	

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Variable Frequency Drives

Product Ordering

Voltage	HP	Phase	Rated Output Current (A)	Frame	Product Information	Part Number
115	0.25	1	1.6	A1	VFD 115V, 1-PH; 0.25HP	RT0002-11N
	0.5	1	2.5	A3	VFD 115V, 1-PH, 0.5HP	RT0005-11N
	1	1	4.8	C1	VFD 115V, 1-PH, 1HP	RT001X-11N
230	0.25	1	1.6	A1	VFD 230V, 1-PH, 0.25HP	RT0002-21N
	0.5	1	2.8	A3	VFD 230V, 1-PH, 0.5HP	RT0005-21N
	1	1	4.8	B2	VFD 230V, 1-PH, 1HP	RT001X-21N
	2	1	7.5	C1	VFD 230V, 1-PH, 2HP	RT002X-21N
	3	1	11.0	C1	VFD 230V, 1-PH, 3HP	RT003X-21N
	0.25	3	1.6	A1	VFD 230V, 3-PH, 0.25HP	RT0002-23N
	0.5	3	2.8	A2	VFD 230V, 3-PH, 0.5HP	RT0005-23N
	1	3	4.8	A5	VFD 230V, 3-PH, 1HP	RT001X-23N
	2	3	7.5	B1	VFD 230V, 3-PH, 2HP	RT002X-23N
	3	3	11.0	C1	VFD 230V, 3-PH, 3HP	RT003X-23N
	5	3	17.0	C1	VFD 230V, 3-PH, 5HP	RT005X-23N
	7.5	3	25.0	D1	VFD 230V, 3-PH, 7.5HP	RT0075-23N
	10	3	33.0	E1	VFD 230V, 3-PH, 10HP	RT010X-23N
	15	3	49.0	E1	VFD 230V, 3-PH, 15HP	RT015X-23N
	20	3	65.0	F1	VFD 230V, 3-PH, 20HP	RT020X-23N
460	0.5	3	1.5	A4	VFD 460V, 3-PH, 0.5HP	RT0005-43N
	1	3	2.7	A5	VFD 460V, 3-PH, 1HP	RT001X-43N
	2	3	4.2	B1	VFD 460V, 3-PH, 2HP	RT002X-43N
	3	3	5.5	C1	VFD 460V, 3-PH, 3HP	RT003X-43N
	5	3	9.0	C1	VFD 460V, 3-PH, 5HP	RT005X-43N
	7.5	3	13.0	D1	VFD 460V, 3-PH, 7.5HP	RT0075-43N
	15	3	17.0	E1	VFD 460V, 3-PH, 15HP	RT015X-43N
	10	3	25.0	D1	VFD 460V, 3-PH, 10HP	RT010X-43N
	20	3	32.0	E1	VFD 460V, 3-PH, 20HP	RT020X-43N
	25	3	38.0	F1	VFD 460V, 3-PH, 25HP	RT025X-43N
575	30	3	45.0	F1	VFD 460V, 3-PH, 30HP	RT030X-43N
	1	3	1.7	A5	VFD 575V, 3-PH, 1HP	RT001X-53N
	2	3	3.0	B1	VFD 575V, 3-PH, 2HP	RT002X-53N
	3	3	4.2	C1	VFD 575V, 3-PH, 3HP	RT003X-53N
	5	3	6.6	C1	VFD 575V, 3-PH, 5HP	RT005X-53N
	7.5	3	9.9	D1	VFD 575V, 3-PH, 7.5HP	RT0075-53N
	10	3	12.2	D1	VFD 575V, 3-PH, 10HP	RT010X-53N

Available Horsepower & Voltage Options

Input Voltage	HP	0.25	0.5	1	2	3	5	7.5	10	15	20	25	30	40
575V 3-ph	Motor output (HP)													
460V 3-ph														
230V 3-ph														
260V 1-ph														
115V 1-ph														

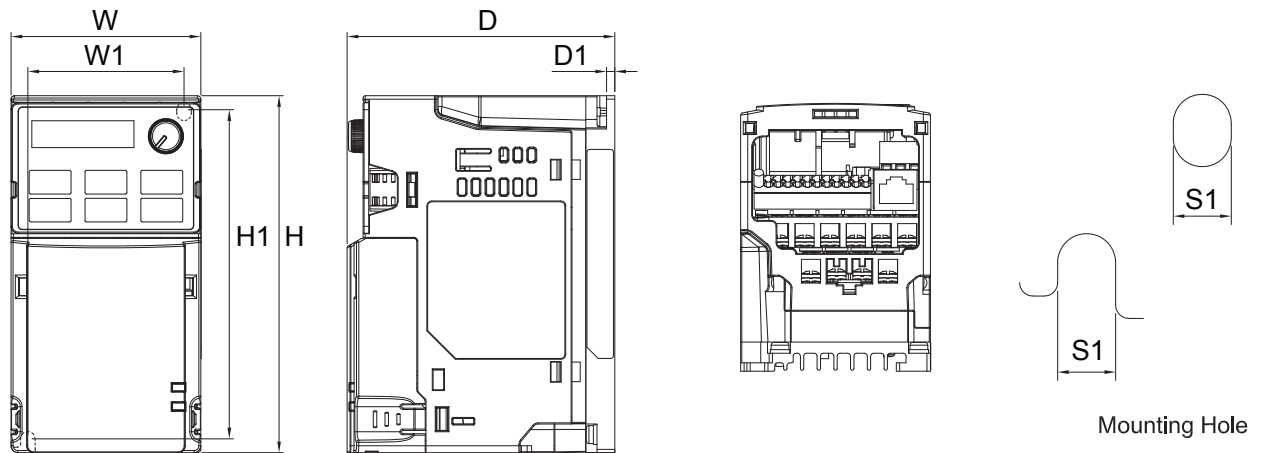
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Variable Frequency Drives

Climatix VFD Accessories

Item	Description	Part Number
Conduit Kit	NEMA1 Kit, Frame A3, A4, A5	RT-CONDUIT-FRA
	NEMA1 Kit, Frame B1, B2, B3	RT-CONDUIT-FRB
	NEMA1 Kit, Frame C1, C2	RT-CONDUIT-FRC
	NEMA1 Kit, Frame D1, D2	RT-CONDUIT-FRD
	NEMA1 Kit, Frame E1, E2	RT-CONDUIT-FRE
	NEMA1 Kit, Frame F1, F2	RT-CONDUIT-FRF
Din Rail Kit	DIN Rail Kit, Frame A or B	RT-MNTK-FRAB
	DIN Rail Kit, Frame C	RT-MNTK-FRC
Grounding Plate Kit	Grounding Plate Kit Frame A	RT-EP-FRA
	Grounding Plate Kit Frame B	RT-EP-FRB
	Grounding Plate Kit Frame C	RT-EP-FRC
	Grounding Plate Kit Frame D	RT-EP-FRD
	Grounding Plate Kit Frame E	RT-EP-FRE
	Grounding Plate Kit Frame F	RT-EP-FRF
EMC Filter	EMC Filter,10A,230V,3PH	RT-EMCF-10AM23A
	EMC Filter,11A,230V,1PH	RT-EMCF-11AM21A
	EMC Filter,12A,460V,3PH	RT-EMCF-12AM43B
	EMC Filter,23A,460V,3PH	RT-EMCF-23AM43B
	EMC Filter,24A,230V,3PH	RT-EMCF-24AM23B
	EMC Filter,27A,230V,1PH	RT-EMCF-27AM21B
	EMC Filter,33A,230V,3PH	RT-EMCF-33AM23B
	EMC Filter,6A,460V,3PH	RT-EMCF-6A0M43A
	EMC Filter,6A,575V,3PH	RT-EMCF-6A0M63B
	EMC Filter,16A,575V,3PH	RT-EMCF-16AM63B
Replacement Fan Kit	RT Fan Kit for Frame B	RT-FANKIT-FRB
	RT Fan Kit for Frame C	RT-FANKIT-FRC
	RT Fan Kit for Frame D	RT-FANKIT-FRD
	RT Fan Kit for Frame E	RT-FANKIT-FRE
	RT Fan Kit for Frame F	RT-FANKIT-FRF

Dimensions

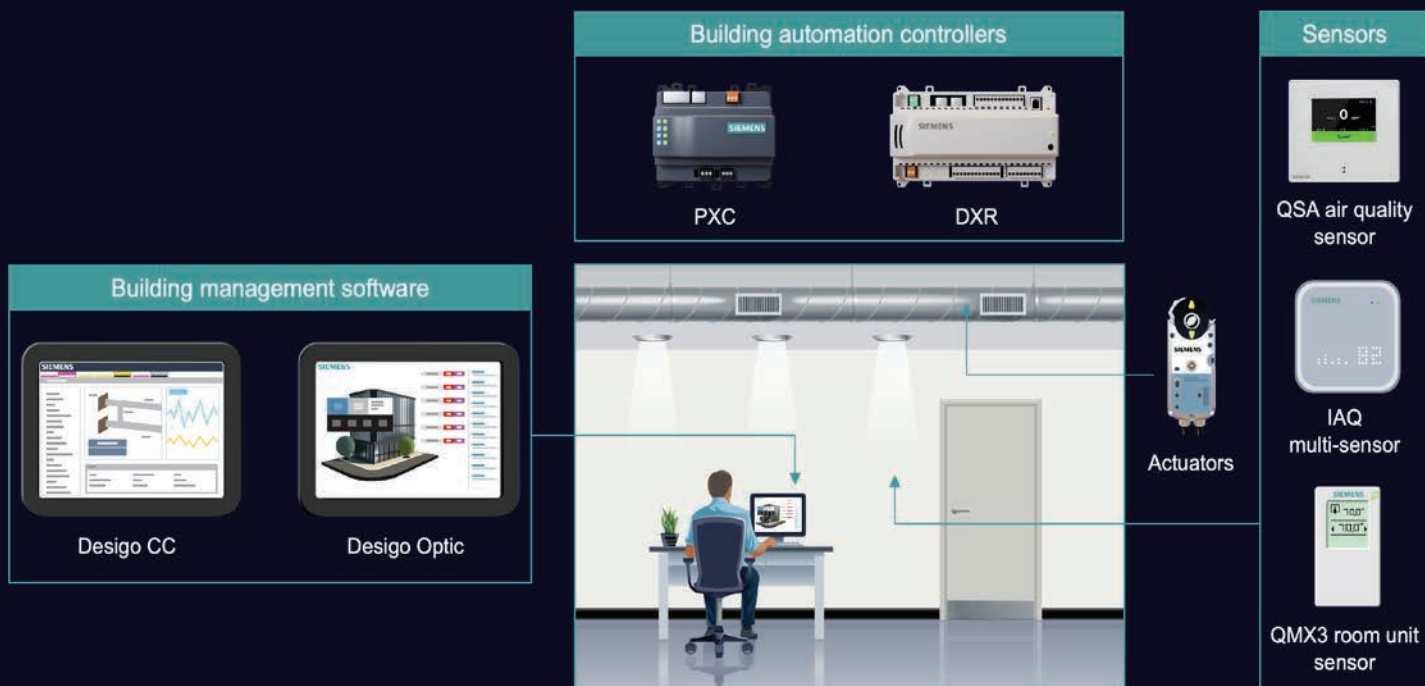


Dimensions and Weights

Frame Size	W	H	D	W1	H1	D1	S1
A1	2.68 (68.0)	5.04 (128.0)	3.78 (96.0)	2.2 (56.0)	4.65 (118.0)	0.12 (3.0)	0.2 (5.2)
A2			4.33 (110.0)				
A3			4.92 (125.0)				
A4			5.08 (129.0)				
A5			5.63 (143.0)				
B1	2.83 (72.0)	5.59 (142.0)	5.63 (143.0)	2.36 (60.0)	5.53 (130.0)	0.25 (6.4)	0.20 (5.2)
B2			6.26 (159.0)			0.12 (3.0)	
B3			6.26 (159.0)			0.17 (4.3)	
C1	3.43 (87.0)	6.18 (157.0)	5.98 (152.0)	2.87 (73.0)	5.69 (144.5)	0.2 (5.0)	0.22 (5.5)
C2			7.05 (179.0)				
D1	4.29 (109.0)	8.15 (207.0)	6.06 (154.0)	3.70 (94.0)	7.63 (193.8)	0.24 (6.0)	0.22 (5.5)
D2			7.36 (187.0)				
E1	5.12 (130.0)	9.84 (250.0)	7.83 (185.0)	4.53 (115.0)	9.32 (236.8)	0.24 (6.0)	0.22 (5.5)
E2			8.62 (219.0)				
F1	6.89 (175.0)	11.81 (300.0)	7.56 (192.0)	6.06 (154.0)	11 (279.50)	0.26 (6.5)	0.33 (8.4)
F2			9.61 (244.0)				

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Variable Frequency Drives



Accelerate **healthy building performance**

Fresh air may be invisible, but you will feel its impact: It turns rooms into spaces that give room for thought, productivity and well-being. Creating optimum indoor air quality (IAQ) has many factors to consider including air circulation, inside and outside temperatures, humidity, CO₂ levels, volatile organic compounds (VOCs) and fine dust (PM2.5) levels. At the same time, the challenge can be finding the right balance to improve IAQ while achieving energy efficiency and sustainability goals.

Gain better visibility and control of IAQ with our sensors, automation controls, damper actuators and data management applications. Design the right solution to fit your building's need no matter the size.

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