



The Best Choice for Grid Abnormal Simulation

Providing clean sine wave AC power, the VFC series allows users to simulate all sorts of utility grid voltage and frequency. The new VFC series features upgraded appearance design and user interface for a more intuitive control. It provides measurements of voltage, current, frequency and power factor. Moreover, the built-in hot key function allows quick memory recall and easy voltage and frequency setting.

Easy-to-use

Intuitive and User-friendly Operation

6 Output Hot Key

Easy Set up and Recall

200% Overload Capability

Easy to Activate Products that Require High Activation Current

■ 10" Intuitive Touch Screen Control

Users can easily read or set test parameters.

■ Applicable to 100% Unbalanced Load

Capable of delivering power to either three separate single-phase devices like EV Charger or one single three-phase device.

■ RS-232 & RS-485 Remote Interfaces

Users can set test parameters for single or multiple VFC series remotely.



VFC series



Output Power
10kVA~2000kVA

Interfaces

Standard **RS-232** **RS-485**

IS-0017

AC Power Source/ Frequency Converter

Providing clean sine wave AC power, the VFC series allows users to simulate all sorts of utility grid voltage and frequency for export product testing or operation of imported equipment. With a brand new appearance design, the new VFC series has not only improved electronic performance but also upgraded its user interface with 7" or 10" touch screen as well as RS-232 and RS-485 for more intuitive control. The VFC series now provides measurements of voltage, current, frequency and power factor. The built-in hot key function allows quick memory recall and easy voltage and frequency setting.

VFC series can simulate standard or abnormal voltage and frequency status. The maximum output power is up to 2000kVA in one unit instead of parallel. The output voltage range is 0-310V, and the output frequency is adjustable between optional 45-65Hz continuously, and optional 45-65Hz, 100Hz / 120Hz / 200Hz / 240Hz / 400Hz. With PWM high-frequency switching technology, VFC series provides pure sine wave output, with single-phase and three-phase output models. Unlike other power supplies in the market, VFC series is suitable for the Certified Bureau, the production and R&D of various industries including home appliances, electrical electronics, medical equipment and lighting.

Friendly UI and Hot Key Group



Main page



6 hot key group



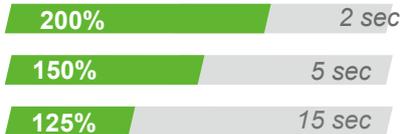
Meter page



Voltage setting page

The new VFC series has updated with an enlarged touch screen that can make fine tune adjustment for parameters and changing values. With RS-232,RS-485 interface, VFC is able to be controlled remotely. The colorful display allows user to quickly recognize all the parameters including voltage, current and PF with 6 groups of hot key that can promptly switching at a glance.

Overload Capability (Opt.)



An electric-motor-type UUT (Unit under Test), such as motor, compressor or water pump, generates great activation current when activating. As a result, users need to purchase a power supply with much higher capacity than the UUT itself. VFC series has an optional overload capability that can endure/achieve 200% overload capability, easy to activate products of electric motor type that require high activation current.

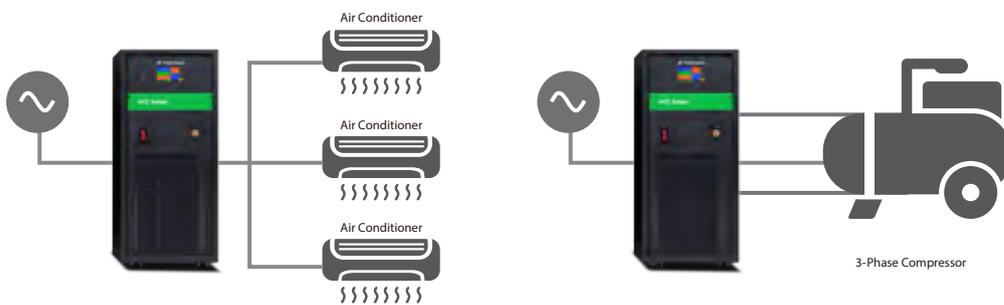
Ideal Power Source for Various Industries



The VFC series AC power source is highly reliable and easy to operate, and it has been widely applied in production line, quality assurance and design verification. The multiple levels of frequency and wide range of output voltage is ideal for applications requiring voltage and frequency conversion. The unit can also be applied as isolation between DUT and the grid to reduce the interference from each side. These features make the VFC series ideal for home appliance, EMC chamber, motor and electronic industries.



Applicable to 100% Unbalanced Load



The VFC series is reliable for testing home appliances, motors, and compressors in production lines or laboratories. It can simulate different voltages and frequencies found in various countries to confirm the DUT's reliability. series can handle unbalanced three-phase loads and connect to single-phase or three-phase loads simultaneously.

Patent Module Design & CE Certified

The VFC series uses AC Power patent power module to greatly enhance its reliability and performance for high power model. It is CE certified and fulfill EMC and LVD requirements to ensure low interference to the DUT and the environment.

VFC Series Single-Phase Output (5kVA-30kVA)

Model	VFC- 11005-E	VFC- 11010	VFC- 11015	VFC- 11030
Phase	1Ø / 2 Wire + G			
Voltage^{*1}	220V±15%			
Frequency	47- 63Hz			
Max. Current^{*2}	41.8A	74A	111A	222A
Power Factor	≥ 0.8 (Max. Power)		≥ 0.85 (Max. Power)	
Power (VA)	5kVA	10kVA	15kVA	30kVA
Phase	1Ø / 2 Wire + G			
Voltage Ranges	5V-155.0V (L-N)		0V-155.0V (L-N)	
Low(V)	10V-300.0V(L-N)		0V-310.0V(L-N)	
High(V)	0.1V			
Voltage Resolution	0.2% F.S.+4 counts		0.5% F.S.+4 counts	
Voltage Accuracy	Standard:47Hz - 63Hz;50Hz;60Hz Option: 2&4 times frequency;400Hz		Standard : 45-65Hz Option : 45-65Hz,100Hz/120Hz/200Hz/240Hz/400Hz	
Frequency Range^{*3}	0.1Hz			
Frequency Resolution	±0.1% F.S.		±0.02% F.S.	
Frequency Accuracy	41.7A	83.3A	125A	250A
Max. Current	20.8A	41.7A	62.5A	125A
Low(A)	< 1%			
High(A)	< 1% (Resistive Load)			
Line Regulation	≤ 2% (Resistive Load)			
Load Regulation	≤ 2ms			
Total Harmonic Distortion				
Response Time				
Voltage Range				
Voltage Resolution	0.1V			
Voltage Accuracy	0.2% F.S.+4counts		0.5% F.S.+4counts	
Frequency Range				
Frequency Resolution	0.1Hz		0.01Hz	
Frequency Accuracy	±0.1% F.S.		±0.02% F.S.	
Current Range(RMS)	0-250A			
Current Resolution(RMS)				
Current Accuracy(RMS)				
Power Range	0 - 5kW	0 - 10kW	0 - 15kW	0 - 30kW
Power Resolution				
Power Accuracy	0.3% F.S.+4counts		1% F.S.+6counts	
Efficiency	≥ 80% at Max. Power		≥ 85% at Max. Power	
HMI	Digital LED Display		7" Touch Screen	
Memories	-		6 sets (M1/M2/M3/M4/M5/M6)	
Protection	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature		Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature	
Remote Interface	-		Standard : RS-232 &RS-485	
Operating Temperature	0°C ~ 45°C			
Humidity	0-90% (Non condensing)			
Altitude	< 1,500m			
Dimensions (H x W x D)^{*4}	720 x 430 x 520 mm (including wheels)	1045 x 600 x 800 mm (including wheels)	1440 x 600 x 800 mm (including wheels)	
	28.3x 16.9 x 20.4 inch (including wheels)	41.1x 23.6 x 31.5 inch (including wheels)	56.7x 23.7 x 31.5 inch (including wheels)	
Weight^{*4}	89 kg	210 kg	240 kg	330 kg
	2.2 lbs	462.9 lbs	529.1 lbs	727.5 lbs

*1 Please contact us for other input voltage specifications. *2 The max. current is based on rated input voltage of 220V.

*3 For frequency option, please contact us for output power characteristic curve.

*4 Dimensions and weight are for input voltage 220V. Please contact us for dimensions and weight for other input voltage.

* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C.

VFC Series Single-Phase Output (10kVA-120kVA)

Model	VFC- 31010	VFC- 31015	VFC- 31030	VFC- 31045	VFC- 31060	VFC- 31080	VFC- 31100	VFC- 31120		
Phase	3Ø / 3 Wire + G									
Voltage	380VAC ±15% (option: 220V / 208VAC)			380VAC ±15% (option: 480VAC)						
Frequency	47-63Hz									
Max. Current *1	22A	33A	66A	99A	132A	197.4A	246.7A	296.1A		
Power Factor	≥ 0.9 (Max. Power)					≥ 0.85 (Max. Power)				
Power (VA)	10kVA	15kVA	30kVA	45kVA	60kVA	80kVA	100kVA	120kVA		
Phase	1Ø / 2 Wire + G									
Voltage Ranges	Low(V)		0V-155.0V (L-N)							
	High(V)		0V-310.0V (L-N)							
Voltage Resolution	0.1V									
Voltage Accuracy	0.5% F.S.+4counts									
Frequency Range *2	Standard : 45-65Hz Option : 45-65Hz, 100Hz / 120Hz / 200Hz / 240Hz / 400Hz									
Frequency Resolution	0.01Hz									
Frequency Accuracy	±0.02% F.S.									
Max. Current	Low(A)		83.3A	125A	250A	375A	500A	666.7A	833.3A	1000A
	High(A)		41.7A	62.5A	125A	187.5A	250A	333.3A	416.7A	500A
Line Regulation	< 1%									
Load Regulation	≤ 1% (Resistive Load)									
Total Harmonic Distortion *3	≤ 2% (Resistive Load)									
Response Time	≤ 2ms									
Voltage Range										
Voltage Resolution	0.1V									
Voltage Accuracy	0.5% F.S.+4counts									
Frequency Range										
Frequency Resolution	0.1Hz									
Frequency Accuracy	±0.02% F.S.									
Current Range(RMS)	0 - 83.3A	0 - 125A	0 - 250A	0 - 375A	0 - 500A	0 - 666.7A	0 - 833.3A	0 - 1000A		
Current Resolution(RMS)										
Current Accuracy(RMS)										
Power Range	0 - 10kW	0 - 15kW	0 - 30kW	0 - 45kW	0 - 60kW	0 - 80kW	0 - 100kW	0 - 120kW		
Power Resolution										
Power Accuracy	1% F.S.+6counts									
Efficiency	≥ 90% at Max. Power					≥ 85% at Max. Power				
HMI	7" Touch Screen			10" Touch Screen						
Memories	6 sets (M1/M2/M3/M4/M5/M6)									
Protection	Input : N.F.B, Over Voltage, Under Voltage Output : Over Voltage, Over Current, Over Temperature									
Remote Interface	Standard : RS-232 &RS-485									
Operating Temperature	0°C ~45°C									
Humidity	0-90% (Non condensing)									
Altitude	< 1,500m									
Dimensions (H x W x D)*4	1045 x 600 x 800 mm (including wheels)		1440 x 600 x 800 mm (including wheels)	1645 x 800 x 800 mm (including wheels)		1800 x 1050 x 950 mm		1900 x 1150 x 1200 mm		
	41.1 x 23.6 x 31.5 inch (including wheels)		56.7 x 23.6 x 31.5 inch (including wheels)	64.8 x 31.5 x 31.5 inch (including wheels)		70.9 x 41.3 x 38.2 inch		74.8 x 45.3 x 48.0 inch		
Weight*4	225kg	270kg	440kg	560kg	650kg	750kg	940kg	1100kg		
	496.1lbs	595.4lbs	970.2lbs	1234.8lbs	1433.3lbs	1653.8lbs	2072.7lbs	2425.5lbs		

*1 The max. current is based on a rated input voltage of 380V minus 15%. *2 For frequency option, please contact us for output power characteristic curve.

*3 When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1.

*4 Dimensions and weight are for input voltage 220/380V. Please contact us for dimensions and weight for other input voltage.

* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C.

VFC Series Three-Phase Output (5kVA-80kVA)

Model	VFC- 33005	VFC- 33010	VFC- 33015	VFC- 33030	VFC- 33045	VFC- 33060	VFC- 33080		
Phase	3Ø / 3 Wire + G								
Voltage	380Vac ±15% (option: 220 / 208VAC)			380Vac ±15% (option: 480VAC)					
Frequency	47-63Hz								
Max. Current ^{*1}	11A	22A	33A	66A	99A	132A			
Power Factor	≥ 0.9 Max. Power						≥ 0.85 Max. Power		
Power (VA)	5kVA	10kVA	15kVA	30kVA	45kVA	60kVA			
Phase	3Ø / 4 Wire + G								
Voltage Ranges	Low(V)		0V-155.0V (L-N)						
	High(V)		0V-310.0V (L-N)						
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4counts								
Frequency Range ^{*2}	Standard : 45-65Hz Option : 45-65Hz, 100Hz/120Hz/200Hz/240Hz/400Hz								
Frequency Resolution	0.1Hz								
Frequency Accuracy	±0.02% F.S.								
Max. Current	Low(A)		13.9A	27.8A	41.7A	83.3A	125A	166.7A	222.2A
	High(A)		6.9A	13.9A	20.8A	41.7A	62.5A	83.3A	111.1A
Line Regulation	≤ 1%								
Load Regulation	≤ 1% (Resistive Load)								
Total Harmonic Distortion ^{*3}	≤ 2% (Resistive Load)								
Response Time	≤ 2ms								
Voltage Range	0V-310.0V								
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4counts								
Frequency Range	45-400Hz								
Frequency Resolution	0.01Hz								
Frequency Accuracy	±0.02% F.S.								
Current Range(RMS)	0 - 13.9A	0 - 27.8A	0 - 41.7A	0 - 83.3A	0 - 125A	0 - 166.7A	0		
Current Resolution(RMS)	0.1A								
Current Accuracy(RMS)	0.5% F.S.+4counts								
Power Range	0 - 5kW	0 - 10kW	0 - 15kW	0 - 30kW	0 - 45kW	0 - 60kW	0		
Power Resolution	0.1kW								
Power Accuracy	1% F.S.+6counts								
Efficiency	≥ 90% at Max. Power						≥ 85 % at Max. Power		
HMI	7" Touch Screen				10" Touch Screen				
Memories	6 sets (M1/M2/M3/M4/M5/M6)								
Protection	Input : N.F.B, Over Voltage, Under Voltage Output : Over Voltage, Over Current, Over Temperature								
Remote Interface	Standard : RS-232 &RS-485								
Operating Temperature	0°C ~ 45°C								
Humidity	0-90% (Non condensing)								
Altitude	< 1,500m								
Dimensions (H x W x D) ^{*4}	1045 x 600 x 800 mm (including wheels)		1440 x 600 x 800 mm (including wheels)		1645 x 800 x 800 mm (including wheels)		1800 x 1050 x 970 mm		
	41.1 x 23.6 x 31.5 inch (including wheels)		56.7 x 23.6 x 31.5 inch (including wheels)		64.8 x 31.5 x 31.5 inch (including wheels)		70.9x41.3x38.2 inch		
Weight ^{*4}	205kg	255kg	295kg	390kg	540kg	650kg	1000kg		
	452lbs	562.3lbs	650.5lbs	860lbs	1190.7lbs	1433.3lbs	2205lbs		

*1 The max. current is based on a rated input voltage of 380V minus 15%.

*3 When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1.

* All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C.

*2 For frequency option, please contact us for output power characteristic curve.

*4 Dimensions and weight are for input voltage 380V. Please contact us for dimensions and weight for other input voltage.

VFC Series Three-Phase Output (100kVA-640kVA)

Model	VFC-33100	VFC-33120	VFC-33160	VFC-33240	VFC-33300	VFC-33400	VFC-33500	VFC-33640	
Phase	3 Ø / 3 Wire + G								
Voltage ¹	380Vac ±15% (option: 480VAC)								
Frequency	47-63Hz								
Max. Current ²	246.7A	296.1A	394.7A	592.1A	740.2A	986.9A	1233.6A	1579A	
Power Factor	≥ 0.85 (Max. Power)								
Power (VA)	100kVA	120kVA	160kVA	240kVA	300kVA	400kVA	500kVA	640kVA	
Phase	3Ø / 4 Wire + G								
Voltage Ranges	Low(V) ⁶	0-155 V (L-N)							
	High(V)	0-310 V (L-N)							
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4 counts								
Frequency Range ³	Standard : 45-65Hz Option : 45-65Hz, 100Hz/120Hz/200Hz/240Hz/400Hz								
Frequency Resolution	0.1Hz								
Frequency Accuracy	±0.02% F.S								
Max. Current (RMS)	Low(A)	277.8A	333.3A	444.4A	666.7A	833.3A	1111.1A	1388.9A	1777.8A
	High(A)	138.9A	166.7A	222.2A	333.3A	416.7A	555.6A	694.4A	888.9A
Line Regulation	≤ 1%								
Load Regulation	≤ 1% (Resistive Load)								
Total HarmonicDistortion(THD) ⁴	≤ 2% (Resistive Load)								
Response Time	≤ 2ms								
Voltage Range	0V-310.0V								
Voltage Resolution	0.1V								
Voltage Accuracy	0.5% F.S.+4 counts								
Frequency Range	45-400Hz								
Frequency Resolution	0.01Hz								
Frequency Accuracy	±0.02% F.S.								
Current Range(RMS)	0 - 277.8A	0 - 333.3A	0 - 444.4A	0 - 666.7A	0 - 833.3A	0 - 1111.1A	0 - 1388.9A	0 - 1777.8A	
Current Resolution(RMS)	0.1A								
Current Accuracy(RMS)	0.5% F.S.+4counts								
Power Range	0 - 100kW	0 - 120kW	0 - 160kW	0 - 240kW	0 - 300kW	0 - 400kW	0 - 500kW	0 - 640kW	
Power Resolution	0.1kW								
Power Accuracy	1% F.S.+6counts								
Efficiency	≥ 85% at Max. Power								
HMI	10" Touch Screen								
Memories	6 sets (M1/M2/M3/M4/M5/M6)								
Protection	Input : N.F.B, Over Voltage, Under Voltage, Output : Over Voltage, Over Current, Over Temperature								
Remote Interface	Standard : RS-232 &RS-485								
Operating Temperature	0°C ~ 45°C								
Humidity	0-90% (Non condensing)								
Altitude	< 1,500m								
Dimensions (H x W x D) ⁵	1800 x 1050 x 970 mm	1900 x 1150 x 1200 mm			2050 x 3880x 1539 mm			2050 x 4716 x 1520 mm	
	70.9 x 41.3 x 38.2 inch	74.8 x 45.3 x 48.8 inch			80.7 x 152.8 x 60.6 inch			80.7 x 185.7 x 59.8 inch	
Weight ⁵	1170kg	1450kg	1850kg	2800kg	3450kg	4450kg	5550kg	7800kg	
	2579.8lbs	3197.3lbs	4079.3lbs	6174lbs	7607.25lbs	9812.25lbs	12237.8lbs	17199lbs	

*1 Please contact us for other input voltage specifications.

*3 For frequency option, please contact us for output power characteristic curve.

*5 Dimensions and weight are for input voltage 380V. Please contact us for dimensions and weight for other input voltage.

*6 Please contact us for specifications

** For output power ranging from 160kVA to 640kVA, please contact us for the dimensions.

*2 The max. current is based on a rated input voltage of 380V minus 15%.

*4 When the output voltage is at Low : 90-140V or High 180-280V with load power factor of 1.

*All specifications are subject to change without notice. The specifications are tested at ambient temperature of 25°C ± 5°C .

VFC Series Single-Phase Output (10kVA-120kVA)

Model Number	Description
VFC-11005-E	High Power Programmable AC Power Source (5kVA/310V/47Hz-63Hz;50Hz;60Hz)
VFC-11010	High Power Programmable AC Power Source (10kVA/310V/45-65Hz)
VFC-11015	High Power Programmable AC Power Source (15kVA/310V/45-65Hz)
VFC-11030	High Power Programmable AC Power Source (30kVA/310V/45-65Hz)
VFC- 31010	High Power Programmable AC Power Source (10kVA/310V/45-65Hz)
VFC- 31015	High Power Programmable AC Power Source (15kVA/310V/45-65Hz)
VFC- 31030	High Power Programmable AC Power Source (30kVA/310V/45-65Hz)
VFC- 31045	High Power Programmable AC Power Source (45kVA/310V/45-65Hz)
VFC- 31060	High Power Programmable AC Power Source (60kVA/310V/45-65Hz)
VFC- 31080	High Power Programmable AC Power Source (80kVA/310V/45-65Hz)
VFC- 31100	High Power Programmable AC Power Source (100kVA/310V/45-65Hz)
VFC- 31120	High Power Programmable AC Power Source (120kVA/310V/45-65Hz)

VFC Three-Phase Output(10kVA-640kVA)

Model Number	Description
VFC- 33005	High Power Programmable AC Power Source (5kVA/310V/45-65Hz)
VFC- 33010	High Power Programmable AC Power Source (10kVA/310V/45-65Hz)
VFC- 33015	High Power Programmable AC Power Source (15kVA/310V/45-65Hz)
VFC- 33030	High Power Programmable AC Power Source (30kVA/310V/45-65Hz)
VFC- 33045	High Power Programmable AC Power Source (45kVA/310V/45-65Hz)
VFC- 33060	High Power Programmable AC Power Source (60kVA/310V/45-65Hz)
VFC- 33080	High Power Programmable AC Power Source (80kVA/310V/45-65Hz)
VFC- 33100	High Power Programmable AC Power Source (100kVA/310V/45-65Hz)
VFC- 33120	High Power Programmable AC Power Source (120kVA/310V/45-65Hz)
VFC- 33160	High Power Programmable AC Power Source (160kVA/310V/45-65Hz)
VFC- 33240	High Power Programmable AC Power Source (240kVA/310V/45-65Hz)
VFC- 33300	High Power Programmable AC Power Source (300kVA/310V/45-65Hz)
VFC- 33400	High Power Programmable AC Power Source (400kVA/310V/45-65Hz)
VFC- 33500	High Power Programmable AC Power Source (500kVA/310V/45-65Hz)
VFC- 33640	High Power Programmable AC Power Source (640kVA/310V/45-65Hz)
VFC- 001	45-65Hz, 100Hz/120Hz/200Hz/240Hz/400Hz
VFC- 006	Overload Capability 200% 2 sec, 150% 5 sec, 125% 15 sec *1
VFC- 007	Input Voltage 208Vac
VFC- 008	Input Voltage 480Vac
VFC- 009	Input Voltage 220Vac
VFC- 010	Input Voltage 400Vac

*1 Please contact us for specifications.

