

BLUE WHALE POWER SUPPLY

PRODUCTS RANGE

Frequency Converter / AC Power Supply

Frequency Converter / GPU

Static Voltage Stabilizer

Servo Voltage Stabilizer

IGBT Frequency & Voltage Stabilizer

DC Ground Power Unit

Programmable DC Power Supply

Uninterruptible Power Supply (UPS)



Solid State Frequency Converter / AC Power Supply

BWFCM Series (0.5kVA ~ 2000kVA)

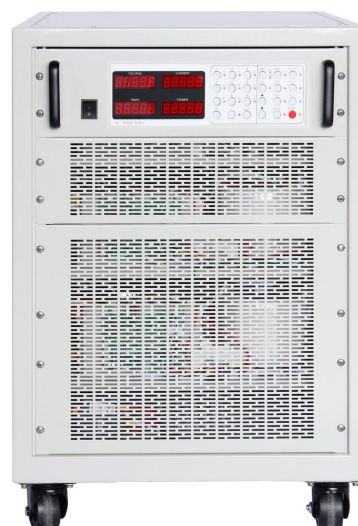
For Applications

- Home appliance
- Electrical equipment
- Laboratory and test
- Aviation and avionics
- Marine electronics
- Motors and pumps



Main Features

- Double conversion
- SPWM and IGBT
- Low harmonic distortion
- Fixed and variable selectable
- Pure sine wave output
- Isolated output transformer
- LED display, key buttons
- Complete protections
- Single & triple phase available



Blue Whale BWFCM series solid state / static frequency converter is one of the most popular AC power supplies designed to change AC power at 50Hz to 60Hz or 60Hz to 50Hz, or convert conventional 50/60 Hertz to 400Hz or convert 50/60Hz to 16.67Hz/25Hz/100Hz.

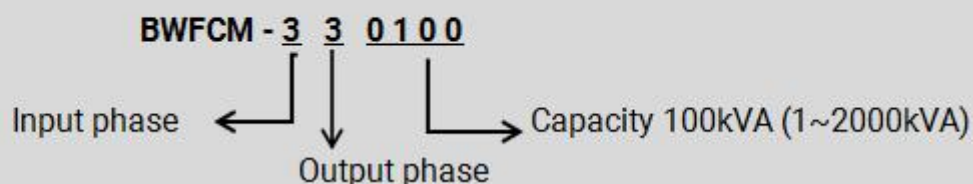
BWFCM series static converters adopt built-in rectifier to convert incoming AC power into DC and then invert the DC into desired frequency and voltage thru IGBT and built-in isolation transformer.

“Blue Whale BWFCM series features in many advantages, making them ideal not only for export product testing or operation of imported equipment, but also for applications such as the

testing of military/avionics equipment or for the operation of 400 hertz electronics that are onboard an aircraft or a military vessel.

Model Selection

Model selection of Blue Whale® BWFCM series solid state frequency converters shown below:



Technical Specification

Capacity	0.5kVA ~ 2000kVA (Select One specific kVA)
Input	
Single phase	110Vac ±10%, 115Vac ±10%, 120Vac ±10% 127Vac ±10%, 220Vac ±10%, 230Vac ±10%, 240Vac ±10% Select One Individual Voltage
Three phase	120/208Vac ±10%, 127/220Vac ±10% 220/380Vac ±10%, 230/400Vac ±10% 240/415Vac ±10%, 254/440Vac ±10%, 277/480Vac ±5% Select One Individual Voltage
Frequency	50Hz/60Hz ±5%
Power factor	≥ 0.8 (standard type) ≥ 0.9 (optional type, 12 pulse)
Output	
Single phase	110Vac, 115Vac, 120Vac, 127Vac, 220Vac, 230Vac, 240Vac fixed Or 0~150Vac adjustable, 0~300Vac adjustable Select One Individual Voltage
Three phase	120/208Vac, 127/220Vac, 220/380Vac, 230/400Vac 240/415Vac, 254/440Vac, 277/480Vac Or 0~260Vac adjustable, 0~520Vac adjustable Select One Individual Voltage
Frequency	50Hz, 60Hz, 100Hz, 200Hz, 400Hz , 40-70Hz, 40Hz~500Hz adjustable Select one or two frequency you need. Or 16.67Hz, 25Hz(Optional)

Voltage Accuracy	$\leq \pm 1\%$ FS (Full Scale)
Frequency Accuracy	$\leq \pm 0.1\%$ FS (Full Scale)
Total harmonic distortion	THD $\leq 3\%$ @ linear load, pure sine wave output
Crest	3:1
Overload	100% for continuous, 120% shut down in 200mS,
Protection	Over current, over load Over voltage, over heat Short circuit, alarm and indicators
Enclosure IP	IP22 (Standard) IP32, IP54(Optional) Or as per requirement
LED display	Digital frequency meter Digital voltage meter Digital current meter Digital power/PF meter
Working condition	
Temperature	Operation: $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$ Ambient: $-10^{\circ}\text{C} \sim 45^{\circ}\text{C}$
Noise	$\leq 65\text{dB}$ at 1 meter
Humidity	10~90% non-condensing
Altitude	$\leq 1800\text{m}$
Reliability and Efficiency	
Mean Time Between Failure(MTBF)	50,000H
Mean Time To Restore(MTTR)	< 30 min
Overall efficiency	$\geq 85\%$
Standards	GB 50054-95 GB 50150-1991 GB 50150-2006 GB 50171-1992 GBT 5465.2-2008 GB/T 16935.5-2008 GB/T 16935.4-2011

