

Reliable frequency transformation

20 - 120 kVA/kW

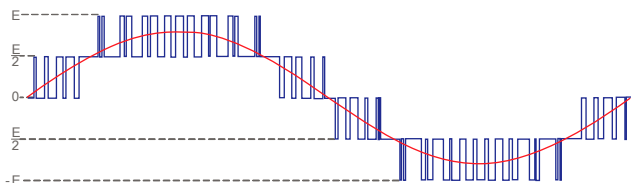


FEATURES

- › IGBT 3-level topology, 94% efficiency
- › Output Power Factor 1.0, higher critical load capacity
- › Active Power Factor Corrector (APFC), input P.F. up to 0.99
- › Wide input voltage range
- › Smart fans, lower noise and longer life
- › LCD 5" colorful touch screen, friendly interface and Converter status LEDs
- › Pure sine wave, providing a clean, harmonic-free output signal, ideal for sensitive equipment
- › Communications RS232, USB, RS485, RJ45, dry contacts, SNMP card, modbus
- › Fault tolerance; one fan damaged takes 50% of the load, two fans damaged take 30% of the load
- › Conformal coating on electronic PCB, operation in harsh environments
- › Compatibility with LiFePO₄ lithium battery bank

3-level topology

Frequency converters include a 3-level IGBT topology, increasing their operating efficiency.



Complete protection



Blackouts



Spikes



Harmonics



Transient



Frequency variation



Sags/swells



Surges



Under-voltage



Noise

Applications

Recommended for equipment with 50 Hz frequencies, such as PLCs, power supplies, variable speed drives, control equipment and more.

Three-Phase Frequency Converter

MODEL	FC33-20TL	FC33-30TL	FC33-40TL	FC33-60TL	FC33-80TL	FC33-100TL	FC33-120TL
Capacity	20 kVA/ 20 kW	30 kVA/ 30 kW	40 kVA/ 40 kW	60 kVA/ 60 kW	80 kVA/ 80 kW	100 kVA/ 100 kW	120 kVA/ 120 kW
Topology (Online)	Double conversion, dual input						
INPUT							
Nominal voltage	(3Phase, N + GND) 208/120, 220/127 VAC						
Voltage range	(120 ~ 269) VAC, Line voltage						
Frequency	50/60 Hz (auto-sensing); (40 - 70) Hz						
Power factor	≥ 0.99 typical						
Total Harmonic Distortion (THDi)	≤ 3%						
OUTPUT							
Output voltage (220/127 VAC default)	(3Phase, N + GND) 190 / 208 / 220 VAC; Line voltage						
Voltage regulation	±1%						
Frequency (Battery mode)	50 Hz ±0.1 Hz						
Power factor	1.0						
Waveform	Pure sine wave						
Crest factor	3:1						
Total Harmonic Distortion (THDv)	≤ 2%						
Overload capacity	105% < load ≤ 110%, 60 min; 110% < load ≤ 125%, 10 min; 125% < load ≤ 150%, 1 min; Load > 150%, 0.2 sec;						
SYSTEM							
Efficiency (normal mode)	94%						
Parallel function	4 max.						
Control panel	LCD 5" color touch screen + LED status indicators + Audible alarm						
Smart protection	Short-circuit, overload, overtemperature, excessive low battery, overvoltage, undervoltage, fans failure						
BACKUP TIME (Optional)							
Battery type	Lead Acid Batteries (VRLA), maintenance free (compatibility with LiFePo4 battery bank)						
Backup time 50% load Internal battery	2 strings (9Ah/12V)(40)= 9.5 min 3 strings (9Ah/12V)(60)= 17 min 4 strings (9Ah/12V)(80)= 24 min	3 strings (9Ah/12V)(60)= 9.5 min 4 strings (9Ah/12V)(80)= 14 min	External Battery Bank				
Backup time 100% load Internal battery	2 strings (9Ah/12V)(40)= 4 min 3 strings (9Ah/12V)(60)= 6 min 4 strings (9Ah/12V)(80)= 9.5 min	3 strings (9Ah/12V)(60)= 4 min 4 strings (9Ah/12V)(80)= 5 min	External Battery Bank				
Charger current	12A max.			24A max.		36A max.	48A max.
External battery Bank connector	Hardwire terminals block (Positive, Negative & Neutral)						
ENVIRONMENT							
Noise	≤ 65dB @ 3.8 ft (1 m.)						
Humidity	0 - 95% (non-condensing)						
Operation Temp.	(32 ~ 104)°F ; (0 ~ 40) °C						
IP Level	IP 20						
PHYSICAL							
Dimensions (Width x Depth x Height)	(14.17 x 33.46 x 34.84)in (360 x 850 x 885)mm			(14.17 x 33.46 x 47.24)in (360 X 850 X 1200)mm	(17.32 x 33.46 x 47.24)in (440 X 850 X 1200)mm	(23.62 x 33.46 x 47.24)in (600 X 850 X 1200)mm	
Weight (without batteries)	220.46 lb / 100 Kg			341.71 lb / 155 Kg	352.74 lb / 160 Kg	507.06 lb / 230 Kg	584.22 lb / 265 Kg
MANAGEMENT & CONTROL							
Communication ports	RS232, USB, RS485, RJ45, CAN, NET, Dual Smart Card Slot, dry contacts, Battery temperature sensor.						
Dual Smart Card	SNMP card, WiFi, GPRS, Dry contacts, (optional)						
CONFORMITY & STANDARDS							
Safety Certification	EN 62040-2-2018, EN 61000-3-12:2011, EN 62040-1:2008+A1:2013, CE						

**Product specifications are subject to change without notice.
*USA-V2508-REV1.00

