

SERIES SFC

CM1 SINGLE PHASE CONVERSION

The **Series SFC** incorporates the latest technology in solid state PWM Inverter and advanced Rectifier controls combined with the use of Galvanic Isolation on the output creates a rugged and efficient static frequency converter. This advancement in digital technology gives the PS&C **Series SFC** a great advantage over other conventional frequency converters. Although IGBT's are a more expensive solution, PS&C employs the digital inverter topology over the older technology (i.e. diodes & SCR's) when the customer requires it. PS&C has over 40 years vested in the development of power conditioning equipment and we always create the best solution for the task. With an incredible input range reaching further, this machine will support equipment in the most extreme electrical conditions. **Series SFC** comes with access to PS&C's Service Division which gives our customers the type of support which is not only required today, but is mandatory for industry to continue to move on a daily basis.



Standard Equipment Features

- PWM IGBT Rectifier
- PWM IGBT Inverter
- Nema 1
- Input Current THD is less than 2%
- Wide Input Range (Optional)
- Input Frequency is 47 to 63 Hz
- Lower Audible Noise
- Front Access
- SNMP Support over Ethernet (Optional)
- RS485 communications port for modbus
- Modbus over TCP/IP support for Ethernet
- LCD display with softkeys for control

Optional Features

- Split input/output voltage
- Nema 3R Enclosures
- Nema 12 Enclosures
- Remote monitor (Status)
- HTTP Monitoring Support
- "Turn-key" Installation
- Remote communications
- Outdoor Enclosures



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System Specifications

LCD DISPLAY MODEL								
CAPACITY	(VA)	700	1000	1500	2000	3000	4000	5000
	(W)	490	700	1050	1400	2100	2800	3500
INPUT								
Voltage Load	100V, 110V, 115V, 120V, 127V				208V, 220V, 230V, 240V			
	Voltage/Range	Load Capacity	Voltage/Range	Load Capacity	Voltage/Range	Load Capacity		
	60 – 69V	0 – 40%	120 – 139v	0 – 40%	120 – 139V	0 – 40%		
	70 – 79V	0 – 70%	140 – 159V	0 – 70%	140 – 159V	0 – 70%		
	80 – 144V	0-100%	180 – 276V	0 – 100%	160 – 276V	0 – 100%		
Frequency	50/60Hz Auto Sensing							
OUTPUT								
Voltage	100V, 110V, 115V, 120V, 127V				208V, 220V, 230V, 240V			
Frequency	50/60Hz +/- 0.5%							
Transfer Time	0 ms							
Overload Recovery	Auto transfer to SFC							
High Eff. mode (AC to AC)	.95%							
UPS Design Technology	Fully digitized microprocessor controlled							
Output Wave Form	Sinewave							
Harmonic distortion	< 3% of T.H.D. at linear load							
Crest Factor	3 : 1							
BATTERY (OPTIONAL)								
Type	Sealed, maintenance – free lead acid batteries							
Typ. Recharge Time to 90% Full	4 hours							
Management	Self-test, adjustable battery transfer points and alarm settings							
Battery Protection	Cut off without draining any current when battery is low							
Cold Start (DC start)	YES							
Back Up Time	7 min	7 min	6 min	7 min	6 min	5 min	6 min	
PROTECTION AND FILTERING				CONFORMANCE				
Surge Protection	120V (IEEE C62.41)/230V (IEEEC61000-4-5 LEVEL 3)			Safety	UL 1778.CE			
Overload Protection	125% FOR 1 minutes and 150% for 10 seconds			EMC (EMS/EMI)	IEC 61000-4, FCC Part 15, CISPR 22			
Short Circuit Protection	SFC output cut off immediately or input fuse/circuit breaker protection			Warranty	12 months from commissioning or 18 months from shipment			
SYSTEM DISPLAY/WARNING				ENVIRONMENT				
Visual Display (LED mode)	SFC on (green), line-mode (green), battery model (yellow), bypass (yellow), fault (red)			Audible Noise (1 meter from surface)	< 40 dBa			
Visual Display (LCD mode)	Input/output voltage, input/output frequency, on-line mode, back up mode, battery capacity, load level			Operating Temperature	32 – 104 F / 0 – 400 C			
				Storage Temperature	-4 – 122 F / -20 - 500 C			
Audible Alarm (Battery back-up)	Beep every 5 sec			Altitude	3,500 meters max			
SFC Fault	Continuous beeping sound and LCD display			Relative Humidity	0-95% humidity, non-condensing			
Communication	RS-232 Serial Port and USB							
PHYSICAL								
Input Inlet	NEMA 5-15 (120V)/IEC 320 (230V)					Hardwire		
Receptacles	NEMA 5-15 (120V)/IEC 320 (230V)					IEC 320		
Total Receptacles (SFC + Surge Only)	6 (120V) 4 (230V)			12 (120V) 8 (230V)		IEC 320 C13*8 IEC 320 C19*2		
Box Dim. Inches W x D x H	6.0" x 16.5" x 9.3" (152 x 420 x 237)			8.9" x 16.5" x 14.2" (225 x 420 x 360)		10.1 x 23.2 x 22.4 (257 x 590 x 570)		
Net Weight (kg) Box model	30.6 (13.9)	37.6 (17.1)	38.9 (17.7)	74.4 (33.8)	78.3 (35.8)	189.2 (86.0)		
Shipping Weight (kg) Box model	34.3 (15.6)	41.6 (18.9)	42.9 (19.5)	79.2 (36.0)	83.6 (38.0)	233.2 (106.0)		

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