

Power Systems & Controls

Series SFC -- Static Frequency Converter



The Series SFC incorporates the latest technology in solid state PWM Inverter and PWM Rectifier controls combined with the use of an “all IGBT” topology for the most efficient static frequency conversion on the market. This advancement in

digital technology gives the PS&C SFC a great advantage over other conventional frequency converters. Although IGBT's are a more expensive solution, we

avoided the older technology (i.e. diodes & SCR's) to gain the quality. 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. With THD less than 1%, efficiency up to 97% and Input Power Factor at .99 minimum, we know our customers will be amazed. Our Series SFC comes with access to our “World Class 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
- Transformer-less
- True On-Line double conversion
- Input PF is greater than .99
- Input Current THD is less than 3%
- Wide Input Range
- Input Frequency is 45 to 65 Hz
- 100% unbalanced load capability
- Lower Audible Noise
- Front access
- Power Factor Correction for 100% generator compatibility
- Active Power Factor Correcting Front End
- SNMP Support over Ethernet
- RS485 communications port for modbus
- Modbus over TCP/IP support for Ethernet
- Monochrome 1/4 VGA Touch Screen

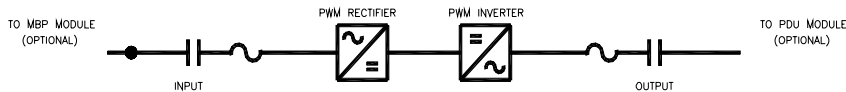
Optional Features

- Split input/output voltage
- Nema 3R Enclosures
- Back-up diesel generator with transfer switch (ATS)
- Remote monitor (Status)
- HTTP Monitoring Support
- “Turn-key” Installation
- PDU Module Cabinet
- Maintenance Bypass Module Cabinet
- Remote communications

System Specifications

Note: 208V & 480V models are transformerless, 380V & 575V require Transformers

INPUT		OUTPUT					
Nominal Voltage Available		Nominal Voltage Available					
➤ @ 60 Hz	208, 480, 575	➤ @ 60 Hz	208, 480, 575				
➤ @ 50 Hz	208, 380	➤ @ 50 Hz	208, 380				
➤ Phase	3 Phase 4 Wire + Ground	➤ @ 400 Hz	200				
➤ Frequency Tolerance	60 Hz +5%, -15%	➤ Phase	3 Phase 4 Wire + Ground				
➤ Magnitude Tolerance		➤ Frequency Regulation	± 0.1%				
➤ Continuous	+10%, -15% (-30% opt.)	➤ Voltage Adjustment	± 5% manually				
➤ Transient	1500v for 1 ms	➤ Voltage Regulation					
➤ Current Distortion	< 3%	➤ Balanced Load	± 1.0%				
General		➤ 100% Imbalance	± 5% phase to phase				
➤ Input Power Factor	> .99	Voltage THD (Total Harmonic Distortion)					
➤ Efficiency	Up to 97%	➤ Single	1% Max				
		➤ Total	3% Max – No load to full				
		Overload Capacity					
		➤ 100% Rating	Continuous				
		➤ 110 - 125%	15 Minutes				
		➤ 150%	1 Minutes				
SERIES CONTINUUM DIMENSIONS & WEIGHTS		Output Power Factor					
KVA/KW	H (CM)	W (CM)	D (CM)	W (KGS)	➤ Power Factor	.9 leading to .9 lagging	
30/24	60 (152)	44 (112)	34 (86)	400 (198)	ENVIRONMENT		
50/40	60 (152)	44 (112)	34 (86)	450 (223)	➤ Temperature	32° to 104° F (0° to 40° C)	
75/60	60 (152)	44 (112)	34 (86)	650 (322)	➤ Altitude	0 to 6600 FT (0 to 2000M)	
100/80	72 (183)	48 (122)	34 (86)	900 (445)	➤ Humidity	0 to 95% non-condensing	
125/100	72 (183)	48 (122)	34 (86)	1000 (495)	➤ Noise Level	65 dBa @ 3 FT (1M)	
150/120	72 (183)	48 (122)	34 (86)	1200 (594)			
175/140	72 (183)	48 (122)	34 (86)	1300 (644)			
200/160	72 (183)	48 (122)	34 (86)	1400 (693)			
250/200	72 (183)	48 (122)	34 (86)	1500 (743)			
300/240	72 (183)	54 (137)	34 (86)	1600 (792)			
400/320	72 (183)	54 (137)	34 (86)	1800 (891)			
500/400	72 (183)	54 (137)	34 (86)	2000 (990)			



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