SEMIPOL™ PRODUCT DATASHEET

SFC Air-cooled system data

Parameter	Value
Input	
Configuration	**6-, 12- or 24-pulse thyristor rectifier**
Maximum supply voltage variation	**+10%**
Mains frequency	**50/60Hz**
Auxiliary supply	**3AC 380-480V/50Hz, 2×220VDC, 1×230VAC**
Power factor	**Approx. 0.85 inductive at rated speed/load[1)]**
Output	
Power	**1900-36000 kW (higher on request)[2)]**
Frequency	**50/60Hz (other on request)**
Motor type	**Synchronous**
Efficiency (converter)	**>98.5%**
Mechanical	
Degree of protection	**Standard: IP31; IP42 on request**
Installation site	**Indoor installation**
Color	**RAL 7035**
Cubicles	**Fa. Rittal, type VX25**
Environment	
Cooling	**Air-cooled**
Environmental temperature	**Operation: +5 ... +40°C[3)]** **Storage: -20 ... +65°C**
Installation altitude	**≤1000m above MSL (mean sea level)[4)]**
Environmental class	**EN 60721-3-3:2002 3K3 (no occurrence of salt fog)/3M2/3C2EN 60721-3-2:1998 2K2/2M1**
Air humidity	**5–85% relative humidity[5)]** **max. 25 g/m3**
Insulation coordination	**Pollution degree 2 according to IEC 60664-1 and UL840**
Seismic requirements	**Up to 0.35g**
Certification	
Approvals	**EN, IEC, CE**
Standard	**IEC 61800-5-1:2016** **IEC 61800-3:2017[6)]** **EN 50581:2012**

1) Power factor is dependent on application
2) Real power is dependent on machine and plant conditions
3) Up to 45°C optional with derating 1% per K
4) Up to 2000m with derating 1.3% per 100m
5) Condensate in the converter & operating room must be avoided
6) Applies not in full for devices with restricted availability that are installed in fixed installations

GEA34911 (07/2024)

	1.4kV 1.9MW 6p6p	1.4kV 2.9MW 6p6p	2.0kV 4.0MW 6p6p	2.5kV 5.0MW 6p6p	2.5kV 6.0MW 6p6p
Input					
Maximum supply voltage [Vac]	**1400+10%**	**1400+10%**	**2000+10%**	**2500+10%**	**2500+10%**
Power electronics design	**PA56**	**PA75**	**PA75**	**PA75**	**PA75**
Output					
Max real power [MW][1)]	**1.9**	**2.9**	**4.0**	**5.0**	**6.0**
DC-current-short time [Adc]	**1200**	**1840**	**1940**	**2200**	**2200**
Short circuit current [kA]	**15**	**25**	**25**	**25**	**25**
Air flow					
Air flow [m^3/hour]	**4600**	**6000**	**6000**	**6000**	**6000**
Air flow direction input	**Front+back**	**Front+back**	**Front+back**	**Front+back**	**Front+back**
Air flow direction output	**Back**	**Back**	**Back**	**Back**	**Back**
Environment					
Sound pressure level [dB(A)][2)]	**85**	**85**	**85**	**85**	**85**
Access					
Cable inlet	**Bottom**	**Bottom**	**Bottom**	**Bottom**	**Bottom**
Access	**Front+back, front only (option)**	**Front+back, front only (option)**	**Front+back, front only (option)**	**Front+back, front only (option)**	**Front+back, front only (option)**
Distance front [mm]	**1000**	**1000**	**1000**	**1000**	**1000**
Distance back [mm]	**600**	**600**	**600**	**600**	**600**
Distance top [mm]	**500**	**500**	**500**	**500**	**500**
Dimensions					
Dimensions cabinets without fans (LxDxH) [mm][3)]	**1200×1000 x2200**	**1800×1000 x2200**	**1800×1000 x2200**	**1800×1000 x2200**	**2100×1000 x2200**
Additional height IP3x fans [mm]	**212**	**286**	**286**	**286**	**286**
Additional height IP4x fans [mm]	**325, 525 (option)**	**325, 525 (option)**	**325, 525 (option)**	**325, 525 (option)**	**325, 525 (option)**
Base frame (on request) [mm]	**160 (option)**	**160 (option)**	**160 (option)**	**160 (option)**	**160 (option)**
Transport dimensions (LxDxH) [mm][4)]	**1600×1300 x2650**	**2200×1300 x2650**	**2500×1300 x2650**	**2200×1300 x2650**	**2500×1300 x2650**

1) Real power depends on machine and plant conditions, only indication
2) Measured at 1m distance, 1.6m height
3) Without regulator cabinet; without base frame, packaging
4) Seaworthy packing

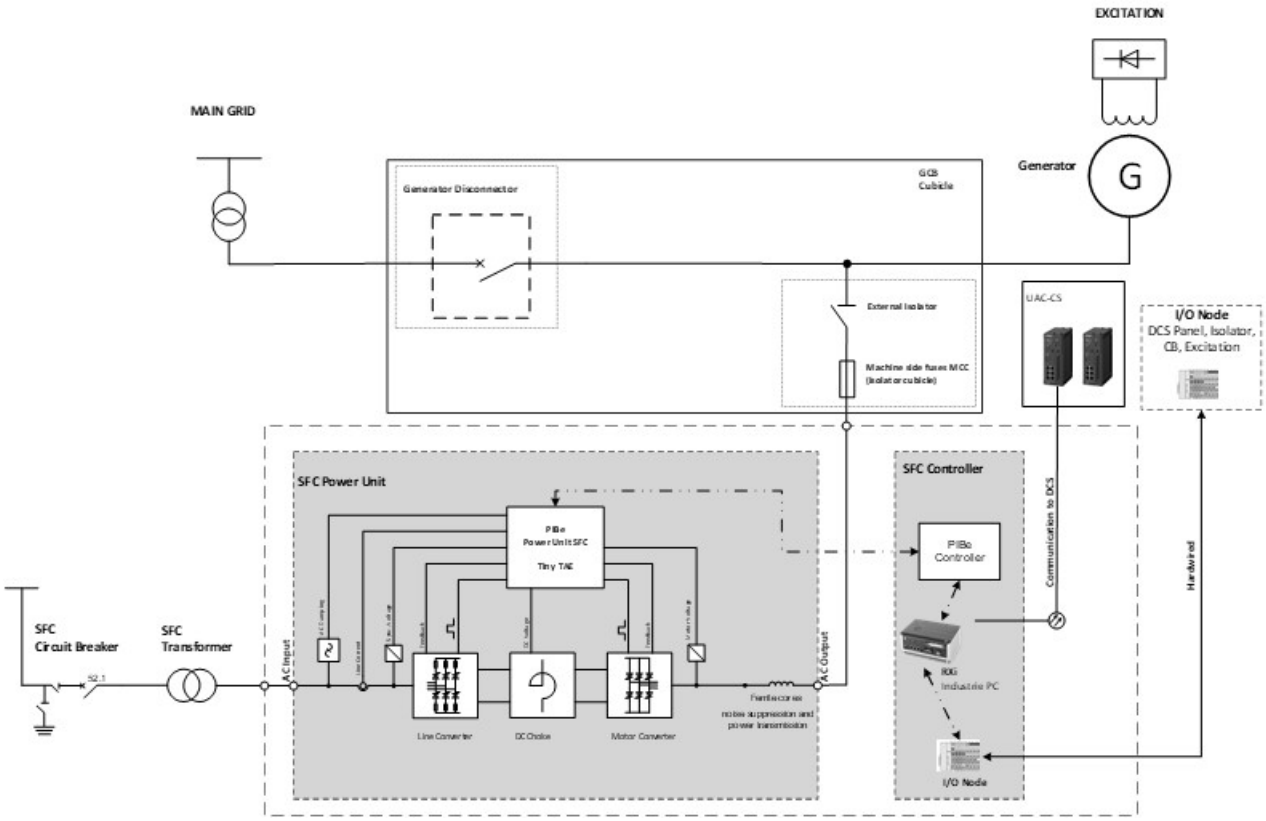
GEA34911 (07/2024)

	2.8kV 11.0MW 6p6p	3.5kV 15MW 6p6p	5.0kV 17.5MW 6p6p
Input			
Maximum supply voltage [Vac]	**2800+10%**	**3500+10%**	**5000+10%**
Power electronics design	**PA100MV**	**PA100MV**	**PA100MV**
Output			
Max real power [MW][1)]	**11.0**	**15.0**	**17.5**
DC-current-short time [Adc]	**3750**	**3900**	**3300**
Short circuit current [kA]	**22**	**22**	**22**
Air flow			
Air flow [m³/hour]	**2500**	**25000**	**25000**
Air flow direction input	**Back**	**Back**	**Back**
Air flow direction output	**Front**	**Front**	**Front**
Environment			
Sound pressure level [dB(A)][2)]	**95**	**95**	**95**
Access			
Cable inlet	**Bottom, top (option)**	**Bottom, top (option)**	**Bottom, top (option)**
Access	**Front+back**	**Front+back**	**Front+back**
Distance front [mm]	**1000**	**1000**	**1000**
Distance back [mm]	**600**	**600**	**600**
Distance top [mm]	**500**	**500**	**500**
Dimensions			
Dimensions cabinets without fans (LxDxH) [mm][3)]	**3600×1400×2360**	**3600×1400×2360**	**3600×1400×2360**
Additional height IP3x fans [mm]	**350**	**350**	**350**
Additional height IP4x fans [mm]	**325, 525 (option)**	**325, 525 (option)**	**325, 525 (option)**
Base frame (on request) [mm]	**Included**	**Included**	**Included**
Transport dimensions (LxDxH) [mm][4)]	**4000×1700×2810**	**4000×1700×2810**	**4000×1700×2810**

1) Real power depends on machine and plant conditions, only indication
2) Measured at 1m distance, 1.6m height
3) Without regulator cabinet; without base frame, packaging
4) Seaworthy packing

GEA34911 (07/2024)

Controller	
Semipol generation	**D4.2**
Controller platform	**PECe**
Cycling time	**380us**
Thyristor firing	**Fiber optic tiny TAE**
Thyristor control modules (firing, actual values processing)	**PIBe (Power interface board)**
Controller modules (PIBe) connection	**Fiber optic**
HMI based commissioning tool	**COMGUIDE**
Interface to DCS	**Profibus DP, Modbus (TCP, UDP, RTU), hardwired**
Interface to excitation	**Profibus DP, Modbus (TCP, UDP, RTU), hardwired**
Remote monitoring connection	**Visor**
Options	
Medium voltage AC circuit breaker	**1–7,2 kV**
Machine side isolators/earthing isolators	**1–7,2 kV–motor operated 24V DC**
Cross start configuration	**Up to 6 machines**
SFC second automatic channel	
SFC configuration with start-excitation	
SFC containerized solution	



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