Central PV Inverter KonSol-200

Technical specifications

Features:

- Compact construction
- Galvanic isolation from grid – integrated grid transformer
- Integrated disconnection apparatus on DC and AC side
- Integrated EMC filters
- Modular – synchronized operation of several units
- Numerous additional features on customer request

Input

Absolute maximum input voltage[1]	1000V
MPPT voltage range	597V – 830V
Operational voltage range	570V – 880V
Maximum input current	395A

Output

Connection	Three-phase
Grid type	TN, TT, IT
Nominal power	200kW @ cos φ=1
Nominal voltage	$3\times400_{rms}$V
Nominal frequency	50Hz / 60Hz[2]
Nominal current	$3\times288A_{rms}$
Power factor	1….0.85 cap./ind.
Total harmonic distortion	< 5%

Safety

DC side switch	Converter-controlled contactor
AC side switch	Converter-controlled motorized circuit breaker
Manual disconnection	Yes, DC and AC side
Overvoltage protection DC side	Varistor system, type II
Overvoltage protection AC side	Varistor system, type II
Isolation monitoring	DC side, AC side on request

Auxiliary power supply

Nominal voltage	400Vac / 230Vac[3], 50Hz
Galvanic isolation	Yes – integrated isolation transformer
Maximum consumption	< 800VA
Stand-by consumption	< 400VA

Efficiency[4]

Maximum efficiency	> 96.5%
Efficiency with transformer	> 95%
Weighted efficiency (Euro-η)	> 95%

Communication and monitoring

Standard communication interfaces/protocols	CAN (CanOpen), RS232 (service port), MODBUS RTU & TCP
Optional Communication interfaces	Ethernet, RS485, modem, GPRS, Bluetooth, others on request
Master/slave operation	Yes, programmable, n units[5]
LCD display	Optional
SCADA system	Optional
Data logging	Flash memory, SD card on request
Web server	Optional

General and mechanical data

Dimensions (WxHxD)	1300 × 2000 (2275)[6] × 800 [mm]
Weight	1850kg[7]
Cooling	Forced air cooling (AF)
Fresh air consumption	3000m^3/h
Installation altitude	< 1000m
Ambient temperature	-20˚C …. +50˚C[8]
Relative humidity	5% …. 95%[9]
Protection class	IP54 / IP20[10]
Connection DC[11]	2 × M16 (per pole)
Connection AC	1 × M12 (per pole)

Norms

Safety	EN62109-1, EN62109-2[12]
EMC	EN61000-6-2, EN61000-6-4
Other	EN50530, EN50178[13]
Grid codes	HEP grid code, other on request

[1] PV Open circuit voltage in winter conditions
[2] On request
[3] On request
[4] Calculated
[5] Synchronization of multiple units through dedicated high-speed interface
[6] With base mount (200 mm) and exhaust baffle (75 mm); dimensions are approximate, actual dimensions can be larger, depending on the customer requirements
[7] Mass is approximate, actual mass depends on customer requirements
[8] With derating in unfavorable conditions
[9] Non condensing
[10] Defined by customer
[11] Other DC bus connection configurations available on request
[12] Optional
[13] Other norms -depends on the converter configuration and communication interfaces

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