PRODUCT DATASHEET - VACON0100X

Item	Characteristic	RSI0100-3L-0009-4-X	Units
1	**MANUFACTURER**		
1.01	MANUFACTURER / CERTIFICATE HOLDER	Grundfos Holding A/S	
1.02	BRAND NAME	GRUNDFOS	
1.03	TRADING NAME	Grundfos Pumps Pty Ltd	
1.04	SERIES	RSI0100X	
1.05	MODEL NUMNER	RSI0100-3L-0009-4-X	
1.06	COUNTRY OF ORIGIN	Italy	
1.06	FRAME SIZE	MM4	
1.07	FIRMWARE NUMBER	FW0072V029	
1.08	CERTIFYING BODY	SGS Systems	
1.09	CERTIFICATE NUMBER	230279 (RSI0100X)	
1.10	EXPIRY DATE	20/04/2028	
1.11	APPLICABLE STANDARDS	IEC 62109-1/ IEC 62109-2	
2	**GENERATOR CONNECTION**		
2.01	NUMBER OF PHASES	3	Phases
2.02	INPUT VOLTAGE (VAC)	380 to 480 VAC	VAC
2.03	INPUT VOLTAGE TOLERANCE (%)	-15% to +10%	%
2.04	INPUT FREQUENCY (Hz)	50 Hz	Hz
2.05	TOPOLOGY	Transformerless	
2.06	MAXIMUM EFFICIENCY (%)	>97%	%
2.07	INPUT FREQUENCY TOLERANCE (Hz)	47.5 to 66 Hz	Hz
2.08	CONNECTION TO GENERATOR	Once per minute or less	
2.09	SHORT-CIRCUIT CURRENT (A)	Max. short-circuit current has to be < 100 kA (with optional input switch < 5 kA)	kA
3	**DC CONNECTIONS**		
3.01	PV DC CONNECTORS MANUFACTURER	N/A	
3.02	PV DC CONNECTORS MODEL	N/A	
3.03	PV DC VOLTAGE MINIMUM (VDC)	436	VDC
3.04	PV DC VOLTAGE MAXIMUM (VDC)	800	VDC
3.05	PV DC VOLTAGE TOLERANCE (VDC)	0	VDC
3.06	PV INPUT POWER MAXIMUM (kW)	8	kW
3.07	START UP DC VOLTAGE (VDC)	351	VDC
3.08	**SOLAR FEATURES**		
3.09	NUMBER OF MPPT	1	
3.10	MPPT MINIMUM VOLTAGE (VDC)	436	VDC
3.11	MPPT MAXIMUM VOLTAGE (VDC)	800	VDC
3.12	MPPT 1 MAXIMUM INPUT CURRENT (A)	9.2	A
3.13	MPPT 1 MAXIMUM SHORT CIRCUIT CURRENT (kA)	<100kA, however the maximum I_{sc} PV and inverter back-feed current depend on the DC fuses selected	kA
3.14	RECOMMENDED DC FUSES SIZE	2 X 15A/1000Vdc	
3.15	DEMAND RESPONSE MODES	N/A	
3.16	POWER QUALITY RESPONSE MODE	N/A	
3.17	EXTERNAL EQUIPMENT REQUIRED FOR COMPLIANCE	N/A	
3.18	MULTIPLE INVERTER COMBINATIONS:	N/A	
4	**MOTOR CONNECTIONS**		
4.01	OUTPUT VOLTAGE (V)	380-480V	V
4.02	RATED OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	9.6	A
4.03	OVERLOAD OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	14.4	A
4.04	STARTING OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	19.2 for 2 s every 20 s.	A
4.05	OUTPUT FREQUENCY (Hz)	0 to 320 Hz (standard)	Hz
4.06	FREQUENCY RESOLUTION (Hz)	0.01 Hz	Hz
4.07	CABLE TYPE	Screened motor cable	

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4.08	OUTPUT APPARENT POWER (KVA)	4.6	kVA
5	**CONTROL CHARACTERISTICS**		
5.01	FIELDBUS	Standard: Serial communication (RS485/Modbus); EtherNet/IP, PROFINET IO, Modbus TCP, BACnet IP Optional: CANOpen; PROFIBUS DP, DeviceNet, LonWorks, AS-interface	
5.02	CONTROL PERFORMANCE	Open loop vector control (5-150% of base speed): speed control 0.5%, dynamic 0.3%/sec, torque linearity <2%, torque rise time ~5 ms	%
5.03	RAMP TIMES (s)	0.01 to 3000 s	sec
6	**AMBIENT CONDITIONS**		
6.01	AMBIENT TEMPERATURE MIN (°C)	-10°C	°C
6.02	AMBIENT TEMPERATURE MAX (°C)	40°C to 50°C with derating	°C
6.03	STORAGE TEMP (°C)	-40°C to +70°C	°C
6.04	RELITIVE HUMIDITY (%)	0 to 100% RH, non-condensing, non-corrosive	%
6.05	POLLUTION DEGREE	PD2 used for PCB design. However the drives are suitable for outdoor use because of dust-tight enclosure to numeral 6 [acc. to IEC 60529].	
6.06	MAXIMUM ALTITUDE (M)	1000m - 3000m with derating	m
6.07	STATIONARY VIBRATION: SINUSOIDAL	3 Hz ≤ f ≤ 8.72 Hz: 10 mm 8.72 Hz ≤ f ≤ 200 Hz: 3g [3M7 acc. to IEC 60721-3-3]	
6.08	SHOCK / BUMP	25g / 6 ms [3M7 acc. to IEC 60721-3-3]	
6.09	IP RATING	IP66	
7	**NOISE LEVEL**		
7.01	Average noise level (min-max) in dB (A)	45-56 dBA Dependant on the cooling fan speed	dBA
8	**WEIGHT, CLEARANCES AND DIMENSIONS**		
8.01	DIMENSIONS: HEIGHT (MM)	316	mm
8.02	DIMENSIONS: WIDTH (MM)	191	mm
8.03	DIMENSIONS: DEPTH (MM)	214	mm
8.04	WEIGHT (KG)	8.8	kg
8.05	CLEARANCE ABOVE (MM)	160	mm
8.06	CLEARANCE SIDES (MM)	80	mm
8.07	CLEARANCE BELOW (MM)	60	mm

	OverVoltage Category of each Port	Category 3	
	Inverter Efficiency (%)	97.20%	%
	Rated Power (For motor connection) (kW)	4.0	kW