

PRODUCT DATASHEET - RSI0100

Item	Characteristic	RSI0100-3L-0105-5	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	RSI0100	
1.05	MODEL NUMNER	RSI0100-3L-0105-5	
1.06	COUNTRY OF ORIGIN	Finland	
1.06	FRAME SIZE	MR7	
1.07	FIRMWARE NUMBER	FW0238V007	
1.08	CERTIFYING BODY	SGS Systems	
1.09	CERTIFICATE NUMBER	230227 (RSI0100)	
1.10	EXPIRY DATE	12/04/2028	
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)	380-500VAC	VAC
2.03	INPUT VOLTAGE TOLERANCE (%)	-10% 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)	Short circuit current: the maximum short circuit current must be < 100 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)	110	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)	121	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 200A/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)	380-500V	V
4.02	RATED OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	IL: 105 IH: 87	A
4.03	OVERLOAD OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	IL: 115.5 (1 min/10 min) IH: 130.5 (1 min/10 min)	A
4.04	STARTING OUTPUT CURRENT (A) (AT 40°C AMBIENT TEMPERATURE)	174 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)	52.5	kVA
5	CONTROL CHARACTERISTICS		
5.01	FIELD BUS	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	RELATIVE HUMIDITY (%)	0-95% RH, non-condensing, non-corrosive	%
6.05	POLLUTION DEGREE	PD2	
6.06	MAXIMUM ALTITUDE (M)	1000m - 3000m with derating	m
6.07	STATIONARY VIBRATION: SINUSOIDAL	5-150 Hz Displacement amplitude 1 mm (peak) at 5-15.8 Hz [EN 61800-5-1 & EN 60068-2-6]	
6.08	SHOCK / BUMP	Storage and shipping: maximum 15 G, 11 ms (in package)	
6.09	IP RATING	IP54	
7	NOISE LEVEL		
7.01	Average noise level (min-max) in dB (A)	43-73 dBA Dependant on the cooling fan speed	dBA
8	WEIGHT, CLEARANCES AND DIMENSIONS		
8.01	DIMENSIONS: HEIGHT (MM)	660	mm
8.02	DIMENSIONS: WIDTH (MM)	237	mm
8.03	DIMENSIONS: DEPTH (MM)	259	mm
8.04	WEIGHT (KG)	37.5	kg
8.05	CLEARANCE ABOVE (MM)	250	mm
8.06	CLEARANCE SIDES (MM)	20	mm
8.07	CLEARANCE BELOW (MM)	100	mm

	OverVoltage Category of each Port	Category 3	
	Inverter Efficiency (%)	97.30%	%
	Max Recommended PV Array Power (kW)	110	kW
	Rated Output Power (for motor connection) - Low Overload - Industrial, -Flow, 400V supply Power 40°C LO (kW)	55	kW
	Rated Output Power (for motor connection) - High Overload - Industrial, 400V supply Power 50°C HO (kW)	45	kW
	Output Voltage range (for motor connection)	380-500V	V

