

VACON® 100

VACON0100-3L-0105-5

1 Technical Data

Item	Characteristic	Value	Units
1	MANUFACTURER		
1,01	MANUFACTURER / CERTIFICATE HOLDER	Danfoss Drives Oy	
1,02	BRAND NAME	VACON	
1,03	TRADING NAME	Danfoss (Australia) Pty Ltd	
1,04	SERIES	VACON 100	
1,05	MODEL NUMNER	VACON0100-3L-0105-5	
1,06	COUNTRY OF ORIGIN	Finland	
1,06	FRAME SIZE	MR7	
1,07	FIRMWARE NUMBER	AMIT1181 ≥ V207.vcx	
1,08	CERTIFYING BODY	SGS Systems	
1,09	CERTIFICATE NUMBER	220389 (VACON100)	
1,10	APPLICABLE STANDARDS	IEC 62109-1/ IEC 62109-2	
2	GENERATOR CONNECTION		
2,01	NUMBER OF PHASES	3	Phases
2,02	INPUT VOLTAGE (VAC)	0 to 500 VAC	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

Item	Characteristic	Value	Units
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 (VAC)	3 VAC to Input Voltage	VAC
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	
4,08	OUTPUT APPARENT POWER (KVA)	52,5	
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		

Item	Characteristic	Value	Units
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

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