

VACON® 100

VACON0100-3L-0009-4-X

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 100X	
1,05	MODEL NUMNER	VACON0100-3L-0009-4-X	
1,06	COUNTRY OF ORIGIN	Italy	
1,06	FRAME SIZE	MM4	
1,07	FIRMWARE NUMBER	AMIT1181 ≥ V207.vcx	
1,08	CERTIFYING BODY	SGS Systems	
1,09	CERTIFICATE NUMBER	220528 (VACON 100X)	
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 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

Item	Characteristic	Value	Units
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 (VAC)	3 VAC to Input Voltage	VAC
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	
4,08	OUTPUT APPARENT POWER (KVA)	4,6	
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	RELATIVE 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	

Item	Characteristic	Value	Units
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

Danfoss Drives Oy
Runsorintie 7
FIN-65380 Vaasa
drives.danfoss.com



Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalog descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogs, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.
