

# RATINGS AND DIMENSIONS

## Mains voltage 208—240 V, 50/60 Hz, 3~, Wall-mounted units

AC DRIVE TYPE	LOADABILITY					MOTOR SHAFT POWER			FRAME SIZE	Dimensions W*H*D (mm)
	Low (+40°C)		High (+50°C)		Maximum current I <sub>S</sub>	230 V supply				
	Rated continuous current I <sub>L</sub> (A)	10% overload current (A)	Rated continuous current I <sub>H</sub> (A)	50% overload current (A)		10% overl. P (kW)	50% overl. P (kW)			
NXS 0004 2 A 2 H 1 SSS	4.8	5.3	3.7	5.6	7.4	0.75	0.55	FR4	128*292*190	
NXS 0007 2 A 2 H 1 SSS	6.6	7.3	4.8	7.2	9.6	1.1	0.75	FR4	128*292*190	
NXS 0008 2 A 2 H 1 SSS	7.8	8.6	6.6	9.9	13.2	1.5	1.1	FR4	128*292*190	
NXS 0011 2 A 2 H 1 SSS	11	12.1	7.8	11.7	15.6	2.2	1.5	FR4	128*292*190	
NXS 0012 2 A 2 H 1 SSS	12.5	13.8	11	16.5	22	3	2.2	FR4	128*292*190	
NXS 0017 2 A 2 H 1 SSS	17.5	19.3	12.5	18.8	25	4	3	FR5	144*391*214	
NXS 0025 2 A 2 H 1 SSS	25	27.5	17.5	26.3	35	5.5	4	FR5	144*391*214	
NXS 0031 2 A 2 H 1 SSS	31	34.1	25	37.5	50	7.5	5.5	FR5	144*391*214	
NXS 0048 2 A 2 H 1 SSS	48	52.8	31	46.5	62	11	7.5	FR6	195*519*237	
NXS 0061 2 A 2 H 1 SSS	61	67.1	48	72.0	96	15	11	FR6	195*519*237	
NXS 0075 2 A 2 H 0 SSS	75	83	61	92	122	22	15	FR7	237*591*257	
NXS 0088 2 A 2 H 0 SSS	88	97	75	113	150	22	22	FR7	237*591*257	
NXS 0114 2 A 2 H 0 SSS	114	125	88	132	176	30	22	FR7	237*591*257	
NXS 0140 2 A 2 H 0 SSS	140	154	105	158	210	37	30	FR8	291*758*344	
NXS 0170 2 A 2 H 0 SSS	170	187	140	210	280	45	37	FR8	291*758*344	
NXS 0205 2 A 2 H 0 SSS	205	226	170	255	336	55	45	FR8	291*758*344	
NXS 0261 2 A 2 H 0 SSF	261	287	205	308	349	75	55	FR9	480*1150*362	
NXS 0300 2 A 2 H 0 SSF	300	330	245	368	444	90	75	FR9	480*1150*362	

VACON - NXS - 0003 - 5 - A - 2 - H - 1 - S - S - S - A1 A2 00 00 00	
<b>NXS</b>	<b>Product Range</b> VACON NXS
<b>0003</b>	<b>Current Rating (Low Overload)</b> Ex: 0003 = 3A
<b>5</b>	<b>Supply Voltage</b> 2 = 208-240V Three Phase 5 = 380-500V Three Phase 6 = 500-690V Three Phase
<b>A</b>	<b>Keypad Option</b> A = Standard Alpha-Numeric Display B = No Keypad F = Dummy Keypad (No interface) G = Graphical Display (Cyrillic Languages)
<b>2</b>	<b>Enclosure Class</b> 2 = IP21/UL Type 1 5 = IP54/UL Type 12 T = Flange Mounting Factory Installed
<b>H</b>	<b>EMC Emission Levels</b> H = fulfils the standard EN/IEC 61800-3 + A1, category C2 T = fulfils the standard EN/IEC 61800-3 + A1, category C4 * L = fulfils the standard EN/IEC 61800-3 + A1, category C3 C = fulfils the standard EN/IEC 61800-3 + A1, category C1
<b>1</b>	<b>Brake Chopper</b> 0 = No Brake Chopper 1 = Integrated Brake Chopper 2 = Integrated Brake Chopper + Brake Resistor
<b>S</b>	<b>Electrical Modifications</b> S = Standard 6-Pulse w/ Integrated Choke B = DC Bus Connection
<b>S</b>	<b>Mechanical Modifications</b> S = Standard Air Cooled Drive G = Standard Air Cooled Drive, No Conduit Box*
<b>S</b>	<b>Card Modifications</b> S = Standard Connection / Not Varnished V = Standard Connection / Varnished Boards
<b>A1</b>	<b>Option Boards (Installed)</b>
<b>A2</b>	Each Two-digit code represents a card slot in order from left to right, Slot A, Slot B, Slot C, Slot D, Slot E
<b>00</b>	A = Basic I/O Cards
<b>00</b>	B = I/O Expansion Cards
<b>00</b>	C = Communications Cards
<b>00</b>	D = Special Option Cards

## TYPE CODE KEY

\* Low earth current solution for IT networks

## VACON NXS CONTROL UNIT

There are no fixed inputs or outputs in the VACON NXS. There are five slots (A, B, C, D and E) for I/O boards, and a suitable board can be selected for each slot (see the table below).

The NXS units are delivered with OPT-A1 and OPT-A2 boards if the I/O is not specified. In many countries, boards OPT-A1 and OPT-A3 are used as standard I/O as the galvanically isolated thermistor input is often required.

Removable terminals, snap-in card installation, automatic card identification and instructions on the drive help making quick connections. If necessary, the inputs, outputs and fieldbus boards can be added in the field. The VACON NXS is simply the most flexible frequency converter series on the market.

An external +24 V supply option enables communication with the control unit even if the mains supply is switched off (e.g. fieldbus communication and parameter settings).



## VACON OPTION BOARDS

Card typecode	Card slot					I/O signal														NOTE	
	A	B	C	D	E	DI	DO	DI DO	AI mA ±V	AI mA isol.	AO mA V	AO mA isol.	RO NO NC	RO NO	+10V ref	Therm	+24 EXT +24V	Pt100	42-240 VAC input		
<b>Basic I/O cards (OPT-A)</b>																					
OPT-A1						6	1		2		1				1		2				
OPT-A2													2								
OPT-A3													1	1		1					
OPT-A8						6	1		2		1				1		2			1)	
OPT-A9						6	1		2		1				1		2			2,5 mm <sup>2</sup> terminals	
<b>I/O expander cards (OPT-B)</b>																					
OPT-B1								6									1			Selectable DI/DO	
OPT-B2													1	1		1					
OPT-B4										1		2					1			2)	
OPT-B5														3							
OPT-B8																	1		3		
OPT-B9														1						5	
<b>Fieldbus cards (OPT-C)</b>																					
OPT-C2																					Modbus, N2
OPT-C3																					
OPT-C4																					
OPT-C5																					
OPT-C6																					
OPT-C7																					
OPT-C8																					Modbus, N2
OPT-CI																					
OPT-CJ																					
OPT-CP																					
OPT-CQ																					

NOTES: Allowed slots for the board are marked in blue.

1) analogue signals galvanically isolated as a group, 2) analogue signals galvanically isolated separately.

OPT-A1

Terminal	Defaults settings	Programmable
1 +10V	Reference voltage	
2 AI1+	Frequency reference 0-10 V	-10--+10 V, 0/4-20 mA
3 AI1-	AI common (GND)	Differential
4 AI2+	Frequency reference 4-20 mA	0-20mA, 0/-10 V-10 V
5 AI2-	AI common (differential)	GND
6 +24V	Control supply (bidirectional)	
7 GND	I/O Ground	
8 DIN1	Start forward	Many possibilities
9 DIN2	Start reverse	Many possibilities
10 DIN3	External fault input	Many possibilities
11 CMA	Common for DIN1 - DIN3 (GND)	Floating
12 +24V	Control supply (bidirectional)	
13 GND	I/O Ground	
14 DIN4	Multi-step speed select 1	Many possibilities
15 DIN5	Multi-step speed select 2	Many possibilities
16 DIN6	Fault reset	Many possibilities
17 CMB	Common for DIN4 - DIN6 (GND)	Floating
18 AO1+	Output frequency (0-20 mA)	Many possibilities
19 AO1-	AO common (GND)	4-20 mA, 0-10 V
20 DO1	READY, $I \leq 50$ mA, $U \leq 48$ VDC	Many possibilities

OPT-A2

Terminal	Defaults settings	Programmable
21 R01	RUN	Many possibilities
22 R01		
23 R01		
24 R02	FAULT	Many possibilities
25 R02		
26 R02		

OPT-A3 (alternative)

Terminal	Defaults settings	Programmable
21 R01	RUN	Many possibilities
22 R01		
23 R01		
25 R02	FAULT	Many possibilities
26 R02		
28 T11+	Thermistor input fault	Warning, fault, no response
29 T11-		

Default settings of OPT-A1, OPT-A2 and OPT-A3 for the Basic and Standard Applications.

OTHER TYPICAL OPTIONS

OPTION	ORDER TYPECODE	AVAILABILITY	NOTE
IP54 enclosure	Factory option	All	Replace '2' by '5' in the type code, e.g. NXS02605A5H0 (SSS...)
	IP5-FR_	FR4, FR5, FR6	IP54 kit, e.g. IP5-FR4
Through-hole mounting	Factory option	FR4-FR9	E.g. NXS02605ATH0STS..., IP54 back, IP21 front, kits available
Integrated brake choppers	Standard	FR4-6/230, 500 V	E.g. NXS00455A2H1 (SSS...)
	Factory option	FR7- / 230 V, 500 V FR6- / 690 V	E.g. NXS02605A2H1 (SSS...)
External brake resistors (380 - 500 V range)	BRR-0022-LD-5	00035-00225	LD = Light duty: 5 sec nominal torque braking from nominal speed decreasing linearly to zero, once per 120 sec. HD = Heavy duty: 3 sec nominal torque braking at nominal speed + 7 sec nominal torque braking from nominal speed decreasing linearly to zero, once per 120 sec. Replace LD by HD in the type code, e.g. BRR-0105-HD-5 Brake resistors are also available for 208-240 V and 500-690 V NXS drives The brake resistor manual is available for more precise selection
	BRR-0031-LD-5	00315	
	BRR-0045-LD-5	00385-00455	
	BRR-0061-LD-5	00615	
	BRR-0105-LD-5	00725-01055	
	BRR-0300-LD-5	01405-03005	
Integrated brake resistors	Factory option	FR4-6/500 V	Replace '1' by '2' in the typecode, e.g. NXS00455A2H2 (SSS...) Light duty: 2 sec nominal torque braking from nominal speed decreasing linearly to zero, once per 60 sec.
Graphical display panel	Factory option	All	Replace 'A' by 'G', e.g. NXS00455G2H1 (SSS...), supports Chinese & Russian
	PAN-G	All	Order typecode when ordered separately
Panel door installation sets	DRA-02B (-04B, -15B)	All	Length of RS232C cable is specified in the typecode, e.g. DRA-02B includes 2-meter RS232C cable
Varnished circuit boards	Factory option	All	Frame sizes FR4-FR8: replace the 'S' by 'V', e.g. NXS00455A2H1SSV..., frame size FR9-FR11: replace 'S' by 'G'
C-level RFI filters	Factory option	FR4-6/500 V	Replace 'H' by 'C' in the typecode, e.g. NXS00455A5C1 (SSS...)
Du/dt & sinus filters			Available for all drives, contact local Vacon supplier