

V7AZ to V1000 Replacement Instructions

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Concerned Drives

This document describes the substitution of the following drives:

Original drive: CIMR-V7AZxxxx ,
Spec: xxxx0 (IP20) or xxxx1 (NEMA1)
Software Version S5740 or S5750
Replacement: CIMR-VZAxxxxxxx

This description is not valid for drives with other specs or other firmware installed!

Main Differences

- V1000 has only 6 inputs, S7 not available
- Analog input A1 in V1000 does not accept 4-20mA use A2 instead
- V1000 has 2nd analog input on standard terminals (A2)
- Operator panel is not detachable in V1000
- Operator and Memobus communication (RJ45, RS232) are possible at the same time on V1000
- No potentiometer in the operator panel use up/down keys for local reference instead
- Torque detection always compares to torque in vector control. N097 is not necessary anymore V1000 vector control has better performance.
- Scaling for memobus frequency monitor independent from display is not possible. (n152)
- Input and Output Open phase detection does not have direct correspondence n166/n167/n168/n169
- No DC braking PI available in V1000 (n173/n174). Not necessary anymore in V1000.
- Sequence Input redundant reading n143 is not necessary anymore in V1000 (faster scan)

Drive Replacement Checklist

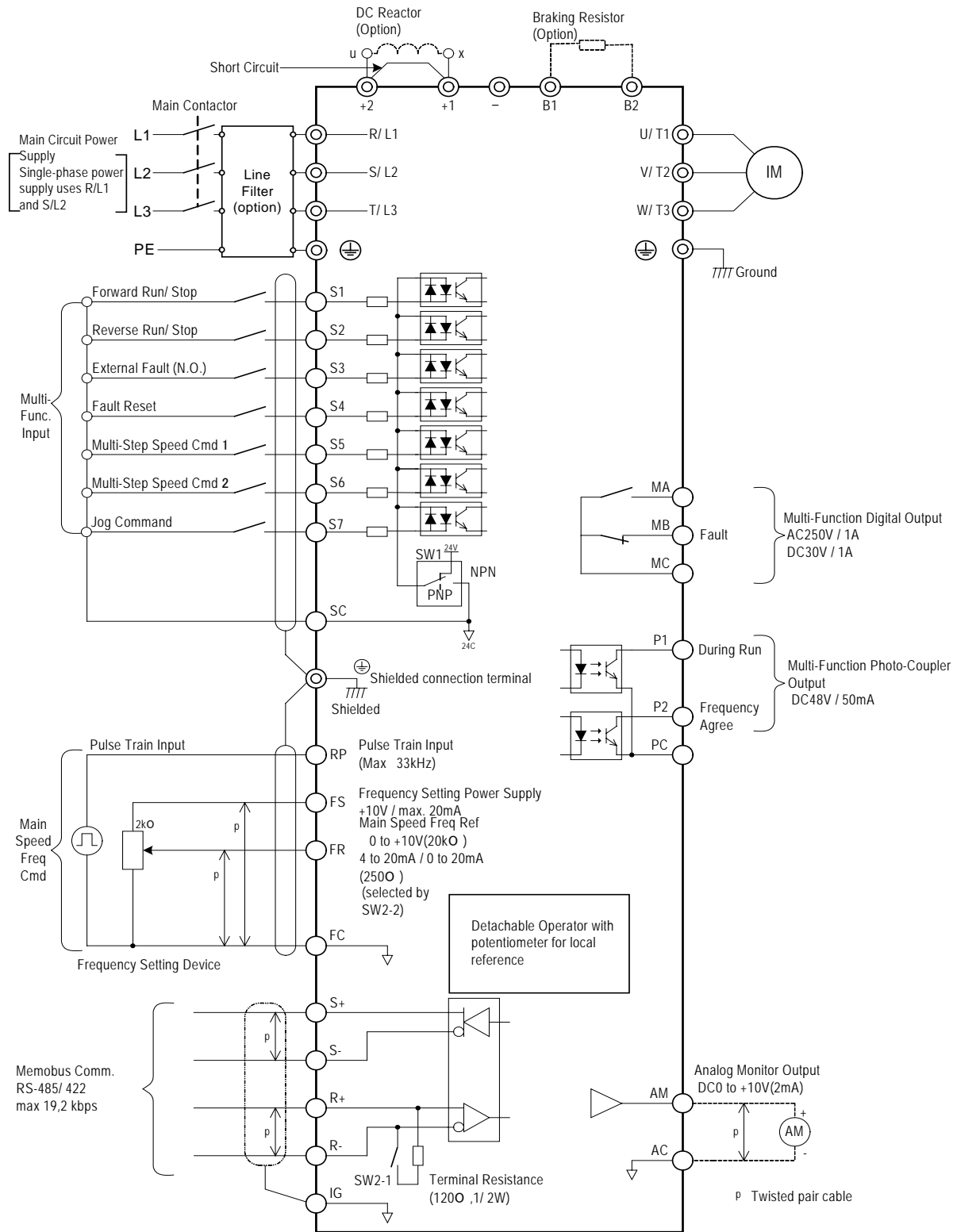
	Item	Checkpoints	Checked?
Hardware	Basic	<u>< Check the installation type ></u> * Check if the drive is installed with the heat sink put through the panel wall. <ul style="list-style-type: none"> ○ For heat sink outside installation a special mounting kit is necessary. Refer to part 0 of this manual for finding the appropriate mounting kit. 	
		* Check if the new drive dimensions are not bigger than the old ones. V1000 up to 4kW has same mounting dimensions. <ul style="list-style-type: none"> ○ Use part 0 of this manual to compare the sizes of the old and new unit. In case that a mechanical substitution kit is necessary, it is mentioned there. 	
		<u>< Digital operator panel ></u> * Does the digital operator panel need to be at the same position as before ? <ul style="list-style-type: none"> ○ If necessary try to readjust the position in order to have the operator panel at the same location as before. * Was a remote operator panel connected to the old unit? <ul style="list-style-type: none"> ○ If so, never connect the old remote operator panel to the V1000. Replace existing remote operators by the new type. See part 0 of this manual for options replacement. 	
		<u>< Special specifications ></u> * Check the installed drives specification to make sure, that it is compliant to the standard specification (no special firmware, no special coating, no special brand ...)	
	Main and control terminals	<u>< Wire Length ></u> * In the replacement drive the main and control circuit terminals can be at a different position. Check if all cables are long enough to be connected without tension to the new unit.	
		<u>< Main circuit wires and terminal specifications ></u> * Compare the occupied terminals of the old unit with the new drives terminals (shape, size, etc.) and check if the wires fit in the new units terminals using part 0 of this book.	
Software	Software version	<u>< Check for special software ></u> * Check the software number in the old unit to be sure, that no special software is used. <ul style="list-style-type: none"> ○ If necessary ask your dealer to find out, if the installed software on the old unit is a special software or not. If the old drive has a special software installed, it might not be easily possible to replace it with a V1000. 	
Software	Parameter	<u>< Check the parameter settings ></u> * Read out the parameter settings of the old unit and perform a parameter transformation to the new parameters following part 0 of this book. * If there is a special software installed or parameters, which are not mentioned in this book appear, contact your dealer.	

Options, Others	Option boards	<p>< Is an option card is installed? ></p> <ul style="list-style-type: none"> * Check if any option board is installed. <ul style="list-style-type: none"> o If an option board is installed, get the equivalent option card for the V1000. o Never try to apply V7 option cards to V1000 unit. o The V1000 option board may have a different connector (e.g. for fieldbus connection). Make sure that the connectors fit in to the new option card before using it. 	
	Others	<p>< Is a braking option (resistor, resistor unit, braking chopper) installed? ></p> <ul style="list-style-type: none"> * Braking options used with a V7 have not to be changed and can be used with the V1000 (only for same capacity like the installed V7). Before connecting it, make sure that the braking option works properly. Connect it to the equivalent terminals on the new unit. 	
		<p>< Is an AC or DC reactor installed? ></p> <ul style="list-style-type: none"> * AC or DC chokes installed with a V7 can be used with a V1000 and have not to be changed (only for same capacity like the installed V7). Before connecting it, make sure that it works properly. 	
		<p>< Is an Noise Filter installed? ></p> <ul style="list-style-type: none"> * Noise filters installed with a V7 can be used with a V1000 and have not to be changed (only for same capacity like the installed V7). Before connecting it, make sure that it works properly. 	
		<p>< Extension Cables ></p> <ul style="list-style-type: none"> * Extension cables for remote operators can continued to be used, but remote operator panels have to be replaced! 	

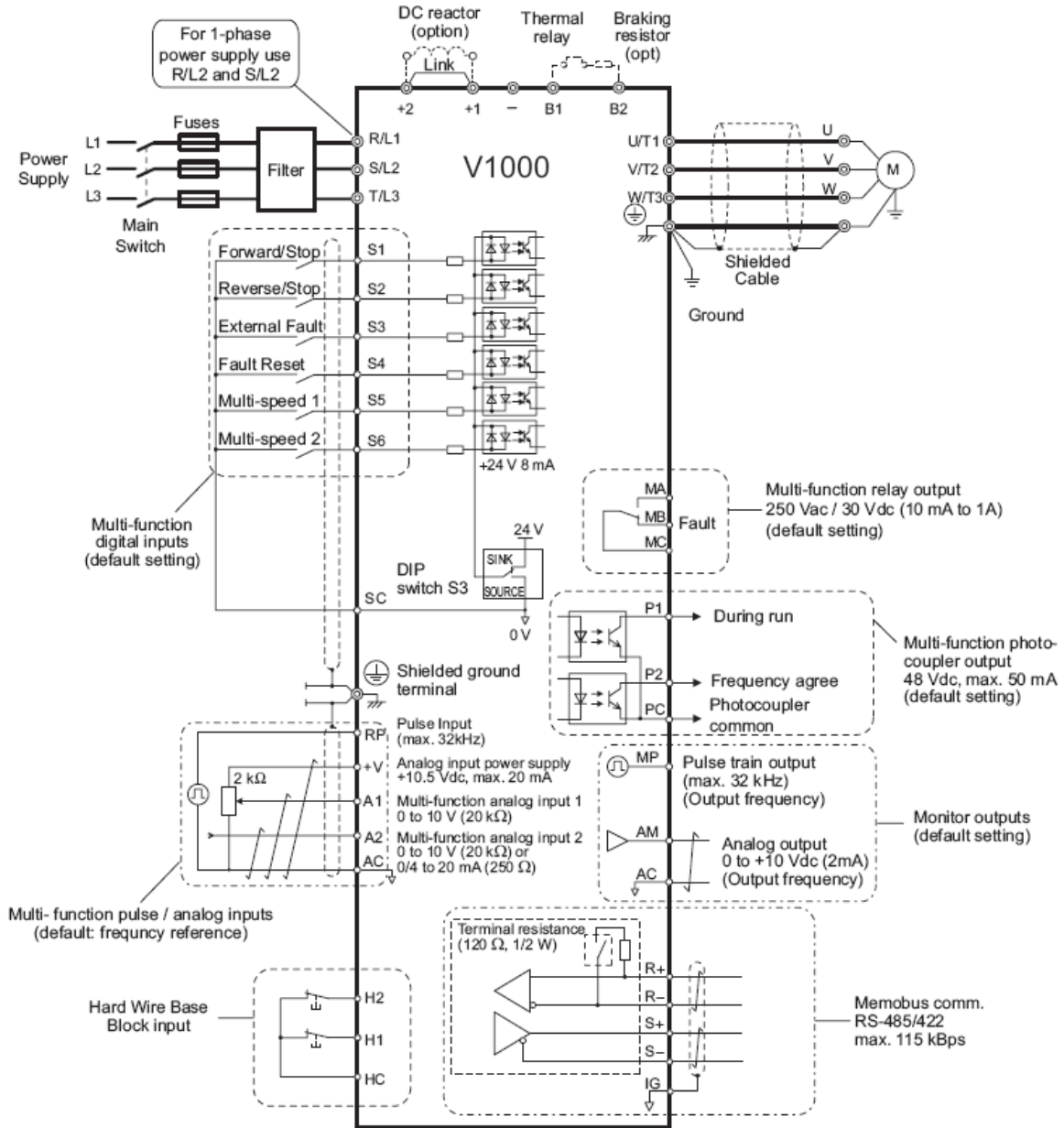
○ Refer to the instruction manual for questions about installation, parameter settings or detailed parameter / function descriptions

○ In case of technical questions regarding the replacement please contact your dealer.

Note: Analog input of operator panel of V7 can be substituted by the 2nd analog input in the input control terminals

V7AZ Connecting Diagram


V1000 Connecting Diagram



- Note:
1. Use shielded cabled for connections which are circled with a dashed line.
 2. Use twisted pair shielded cables for connections, which are circled with a dash-dot line.
 3. A double circle connector indicates a main circuit terminal, a single circle connector indicates a control terminal.

Terminals
Main circuit terminals

1. As the V7AZ and V1000 may have different terminals sizes (depending on capacity), this point has to be carefully checked before the replacement (see 2-4).

V7AZ Main terminals	V1000 Main terminals	Note
R/L1	R/L1	Power supply connection
S/L2	S/L2	
T/L3	T/L3	
U/T1	U/T1	Drive output
V/T2	V/T2	
W/T3	W/T3	
B1	B1	Braking resistor or external braking chopper connection
B2	B2	Braking resistor connection
+1	+1	DC Reactor connection, DC power supply input
+2	+2	DC Reactor connection
—	—	DC power supply input, external braking chopper connection

Control Terminals, Signal Levels

2. “-“ means that an equivalent terminal on the other unit does not exist

Terminal		Function	Signal Level																
V7AZ	V1000		V7AZ	V1000															
S1		Multi function input 1 (1: Run forward 0: Stop)	Photo coupler +24Vdc, 8mA	Photo coupler +24Vdc, 8mA															
S2		Multi function input 2 (1: Run reverse 0: Stop)																	
S3		Multi function input 3 (Ext. fault)																	
S4		Multi function input 4 (Fault reset)																	
S5		Multi function input 5 (Multi speed 1)																	
S6		Multi function input 6 (Multi speed 2)																	
S7	—	Multi function input 7 (Jog speed)	Photo coupler +24Vdc, 8mA	-															
SC		Multi function input common	-	-															
RP		Pulse input (frequency reference)	Max. 33kHz	0.5 to 32kHz															
FS	+V	Analog input power supply	+12V, max. 20mA	+10.5V, max. 20 mA															
FR	A1	Analog input 1 (frequency reference)	0-10 Vdc (20 k Ω), 0 or 4-20 mA (250 Ω)	0-10 Vdc (20 k Ω)															
—	A2	Analog input 2 (CN2 in V7) (frequency reference)	0-10 Vdc (20k Ω), 4-20mA (250 Ω)	0-10 Vdc (20k Ω), 0 or 4-20mA (250 Ω)															
FC	AC	Analog input common	0V																
—	HC	Hard wire base block common	—	+24V(max. 10mA)															
—	H1	Hard wire base block input 1 (EN60204-1, stop cat. 0 conform stop)	—	<table border="1"> <thead> <tr> <th>H1</th> <th>H2</th> <th>Output State</th> </tr> </thead> <tbody> <tr> <td>Off</td> <td>Off</td> <td>Disable</td> </tr> <tr> <td>On</td> <td>Off</td> <td>Disable</td> </tr> <tr> <td>Off</td> <td>On</td> <td>Disable</td> </tr> <tr> <td>On</td> <td>On</td> <td>Enable</td> </tr> </tbody> </table>	H1	H2	Output State	Off	Off	Disable	On	Off	Disable	Off	On	Disable	On	On	Enable
H1	H2	Output State																	
Off	Off	Disable																	
On	Off	Disable																	
Off	On	Disable																	
On	On	Enable																	
—	H2	Hard wire base block input 2 (EN60204-1, stop cat. 0 conform stop)																	
MA		Change over contact output (NO) (Fault)	Max. load AC250V 1A max. DC30V 1A max.	Max. load AC250V 10mA~1A DC30V 10mA~1A															
MB		Change over contact output (NC) (Fault)																	
MC		Change over contact output common																	
P1		Open collector output 1 (during run)	Open Collector +48 Vdc, max. 50 mA																
P2		Open collector output 2 (speed agree)																	
PC		Open collector output common																	
—	MP	Pulse output (output frequency)	Pulse output by analog output max. 14400Hz	Max. 32kHz															
AM		Analog output	0-10 Vdc, max. 2mA	0-10 Vdc, max. 2mA															
AC		Analog output GND	Resolution 8bit	Resolution 10bit															

Serial communications terminals

3. “-“ means that an equivalent terminal on the other unit does not exist

Terminal		Function	Signal level	
V7AZ	V1000		V7AZ	V1000
R+	R+	Receive +	RS-485/422 MEMOBUS Protocol Max. 19.2kbps	RS-485/422 MEMOBUS Protocol Max. 115.2kbps
R-	R-	Receive -		
S+	S+	Transmit +		
S-	S-	Transmit -		
—	IG	Shield connection, GND	—	0V

DIP Switches

When replacing a V7AZ, make sure to set the DIP switches S1 to S3 on the V1000 properly.


Function	V7AZ		V1000	
	Switch	Default	Switch	Default
NPN/PNP selection	SW1	NPN	S3	NPN
Analog input 2 level selection	CN2 pin select	-	S1	Current
RS422/485 terminal resistance	SW2	OFF	S2	OFF






Terminal Size/ Electric Wire Differences


Main Circuit Terminal





⊕ stands for the ground terminal

Voltage class	Drive	Capacity	Terminal Symbol	Screw Size	Tightening Torque (Nm)	Wire Size (mm ²)	Recommended Wire Size (mm ²)
Single-Phase 200V	V7AZ	B0P1 B0P2 B0P4	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, ⊕	M3.5	0.8~1.0	0.75~2	1.5
	V1000	B0P1 B0P2 B0P4	B1, B2, ⊕				
	V7AZ	B0P7	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1,+2, ⊕	M4	1.2~1.5	2.0~5.5	2.5
	V1000	B0P7	B1, B2, ⊕				
	V7AZ	B1P5	R/L1,S/L2, U/T1,V/T2,W/T3, ⊕	M4	1.2~1.5	2.0~5.5	4
	V1000	B1P5	B1, B2, ⊕				
	V7AZ	B1P5	-, +1, +2, ⊕	M4	1.2~1.5	2.0~5.5	4
	V1000	B1P5	B1, B2, ⊕				
	V7AZ	B2P2	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, ⊕	M4	1.2~1.5	2.0~5.5	4
	V1000	B2P2	-, +1, +2, ⊕				
	V7AZ	B4P0	R/L1,S/L2, U/T1,V/T2, W/T3, -, +1, +2, B1, B2,	M5	3.0	3.5~8.0	8
	V1000	B4P0	-, +1, +2, B1, B2, ⊕		2.2~2.5		
	V7AZ	B4P0	⊕	M4	1.2~1.5	2.0~8.0	8
	V1000	B4P0	⊕		2.2~2.5		

Main Circuit Terminal
 stands for the ground terminal

Voltage class	Drive	Capacity	Terminal Symbol	Screw Size	Tightening Torque (Nm)	Wire Size (mm ²)	Recommended Wire Size (mm ²)
Three-Phase 200 V	V7AZ	20P1 20P2 20P4 20P7	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, B1, B2, 	M3.5	0.8~1.0	0.75~2	1.5
	V1000	20P1 20P2 20P4 20P7					
	V7AZ	21P5	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1,+2, B1, B2,	M4	1.2~1.5	2.0~5.5	2.5
	V1000	21P5					
	V7AZ	21P5		M4	1.2~1.5	2.0~5.5	2.5
	V1000	21P5					
	V7AZ	22P2	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, B1, B2, 	M4	1.2~1.5	2.0~5.5	4
	V1000	22P2					
	V7AZ	24P0	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, B1, B2, 	M4	1.2~1.5	2.0~5.5	4
	V1000	24P0					
	V7AZ	25P5	R/L1,S/L2, U/T1,V/T2,W/T3, -, +1, +2, B1, B2, 	M5	2.5	5.5~8.0	8
	V1000	25P5			2.2~2.5	5.5~14.0	
	V7AZ	25P5	B1, B2,	M5	2.5	5.5~8.0	8
	V1000	25P5		M4	1.2~1.5	2.0~5.5	5.5

Main Circuit Terminal
 stands for the ground terminal

Voltage class	Drive	Capacity	Terminal Symbol	Screw Size	Tightening Torque (Nm)	Wire Size (mm ²)	Recommended Wire Size (mm ²)
Three-Phase 400 V	V7AZ	40P2 40P4 40P7 41P5 42P2	R/L1,S/L2, U/T1,V/T2,W/T3, -,+1,+2, B1, B2, 	M4	1.2~1.5	2.0~5.5	2.5
	V1000	40P2 40P4 40P7 41P5 42P2					
	V7AZ	43P0 44P0	R/L1,S/L2, U/T1,V/T2,W/T3, -,+1,+2, B1, B2,	M4	1.2~1.5	2.0~5.5	2.5
	V1000	43P0 44P0					
	V7AZ	43P0 44P0		M4	1.2~1.5	2.0~5.5	2.5
	V1000	43P0 44P0					
	V7AZ	45P5	R/L1,S/L2, U/T1,V/T2,W/T3, -,+1,+2,	M4	1.4	3.5~5.5	5.5
	V1000	45P5	-,+1,+2,		1.2~1.5	2.0~5.5	
	V7AZ	45P5	B1, B2,	M4	1.4	3.5~5.5	5.5
	V1000	45P5			1.2~1.5	2.0~5.5	2
	V7AZ	45P5		M4	1.4	3.5~5.5	5.5
	V1000	45P5		M5	2.2~2.5	2.0~5.5	
	V7AZ	47P5	R/L1,S/L2, U/T1,V/T2,W/T3, -,+1,+2,	M5	2.5	5.5~8	5.5
	V1000	47P5	-,+1,+2,	M4	1.2~1.5	2.0~5.5	
	V7AZ	47P5	B1, B2,	M5	2.5	5.5~8	5.5
	V1000	47P5		M4	1.2~1.5	2.0~5.5	2
	V7AZ	47P5		M5	2.5	5.5~8	5.5
	V1000	47P5			2.2~2.5	2.0~5.5	

Control terminal sizes and wire sizes

Voltage class	Drive	Capacity	Terminal Symbol (new or changed in brackets)	Screw Size	Tightening Torque (Nm)	Wire Size (mm ²)	Recommended Wire Size (mm ²)
All	V7AZ	All	MA,MB,MC	M3	0.5~0.6	flexible 0.25~1.25	flexible 0.2~1.25
	V1000				Screw less terminals	solid 0.25~1.25	solid 0.2~1.5
All	V7AZ	All	S1-S6, SC, P1, P2, PC, R+, R-, S+, S-, FS (V+), FR (A1), (A2), FC (AC), AM,AC,RP, (MP), (HC), (H1), (H2)	M2	0.22~0.25	flexible 0.25~0.75	flexible 0.2~1.0
	V1000				Screw less terminals	solid 0.25~1.25	solid 0.2~1.5

Dimensions, installation space and substitution material
IP20 Type

Voltage class	V7 type V7AZ****	V1000 Type VZA****	V7AZ (unit: mm)			V1000 (unit: mm)			Installation attachment (order code)		
			W	H	D	W	H	D	Panel mounted	Heat sink outside	
Single Phase 200V	B0P1	B0P1	68	128	76	68	128	76	UNDER DEVELOPMENT		
	B0P2	B0P2			131			108			118
	B0P4	B0P4									137.5
	B0P7	B0P7	108		140	154					
	B1P5	B1P5	140		156	163					
	B2P2	B2P2	170		163	180					
B4P0	B4P0		180	170	180						
3 Phase 200V	20P1	20P1	68	128	76	68	128	76			
	20P2	20P2			108			108			108
	20P4	20P4									128
	20P7	20P7	108		131	129					
	21P5	21P5	140		140	137.5					
	22P2	22P2	140		143	143					
	24P0	24P0	180		140	140					
	25P5	25P5	180		260	170		140	234	140	
27P5	27P5										
3 Phase 400V	40P2	40P2	108	128	92	108	128	81			
	40P4	40P4			140			108	99		
	40P7	40P7							137.5		
	41P5	41P5	140		156	154					
	42P2	42P2	140		143	143					
	43P0	43P0	180		140	140					
	44P0	44P0	180		260	170		140	234	140	
	45P5	45P5									
47P5	47P5										

NEMA Type 1

Voltage class	V7 type V7AZ****	V1000 Type VZA****	V7AZ (unit: mm)			V1000 (unit: mm)			Installation attachment (order code)	
			W	H	D	W	H	D	normal	Heat sink outside
Single Phase 200V	B0P1	B0P1	68	148	76					
	B0P2	B0P2								
	B0P4	B0P4								
	B0P7	B0P7	108		131					
	B1P5	B1P5			140					
	B2P2	B2P2			156					
	B4P0	B4P0			163					
		170	166	180						
3 Phase 200V	20P1	20P1	68	148	76					
	20P2	20P2								
	20P4	20P4								
	20P7	20P7	108		108					
	21P5	21P5			128					
	22P2	22P2			131					
	24P0	24P0			140					
		140		143						
3 Phase 400V	40P2	40P2	108	148	92					
	40P4	40P4								
	40P7	40P7								
	41P5	41P5			110					
	42P2	42P2	140							
	43P0	43P0	140		156					
	44P0	44P0			143					

UNDER DEVELOPMENT

Options Replacement

The table below gives an overview about the replacement of options, which might be installed at the drive which has to be replaced. Replace an option only like by the appropriate new type and never try to apply any not mentioned option to the V1000.

Type	Description	V7AZ	V1000
Option boards	Profibus comm. option	SI-P1/V7	SI-P3 (u. development)
	CanOpen comm. option	SI-S1/V7	SI-S3 (u. development)
	Devicenet comm. option	SI-N1/V7	SI-N3 (u. development)
		SI-N3 (u. development)	SI-N3 (u. development)
	Mechatrolink II comm. option	SI-T/V7	Under development
	LONWorks comm. option	-	Under development
	Ethernet comm. option	-	Under development
Inverter PLC	3G3MV-P10CDT-E	Under development	
Operator panel	Remote operator without potentiometer	JVOP-146	JVOP-180 (u. development)
	Remote operator with potentiometer	JVOP-144	-
	Extension cable 1 m	72606-WV001	72606-WV001
	Extension cable 2 m	72606-WV003	72606-WV003
Braking resistor	Heat sink mounted braking resistor	ERF-150WJx	Use the existing resistor, if inverter size is the same. Check for min. resistor value
DIN rail attachment	Used to mount the drive on a DIN rail.	EZZ08122x	Use the existing, if the inverter size is the same.
AC reactors		UZBA-B	V7AZ installation can be used with V1000
DC reactors		UZDA-B	V7AZ installation can be used with V1000
Heat sink outside mounting			Under development

Parameter Correspondence Table
V7AZ→V1000 Parameter Correspondence for Drive Replacement

4. Before setting up other parameters, make sure that C6-01 is set to "0".
5. The given voltage values are valid for 200 V units. For 400 V units the values have to be doubled.
6. The given V1000 defaults for max. frequency are given for European spec (o2-09 = 2)

Drive Function/ Parameter	V7AZ		V1000		Comments																
	Parameter No.	Initial Value	Parameter No.	Initial Value																	
Parameter access level	001	1	A1-01	2	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n001→0</td> <td>A1-01→0</td> </tr> <tr> <td>n001→1~4</td> <td>A1-01→2</td> </tr> <tr> <td>n001→5</td> <td>A1-01→2 b1-08→1</td> </tr> <tr> <td>n001→6</td> <td>o4-11→1</td> </tr> <tr> <td>n001→12</td> <td>A1-03→2220</td> </tr> <tr> <td>n001→13</td> <td>A1-03→3330</td> </tr> </tbody> </table>	V7AZ	V1000	n001→0	A1-01→0	n001→1~4	A1-01→2	n001→5	A1-01→2 b1-08→1	n001→6	o4-11→1	n001→12	A1-03→2220	n001→13	A1-03→3330		
V7AZ			V1000																		
n001→0			A1-01→0																		
n001→1~4			A1-01→2																		
n001→5			A1-01→2 b1-08→1																		
n001→6	o4-11→1																				
n001→12	A1-03→2220																				
n001→13	A1-03→3330																				
Initialization	A1-03	0																			
RUN command In PRG mode select	b1-08	0																			
Fault history U2, U3 initialization	o4-04	0																			
Control mode selection	002	0	A1-02	2	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n002→0</td> <td>A1-02→0</td> </tr> <tr> <td>n002→1</td> <td>A1-02→2</td> </tr> </tbody> </table>	V7AZ	V1000	n002→0	A1-02→0	n002→1	A1-02→2										
V7AZ	V1000																				
n002→0	A1-02→0																				
n002→1	A1-02→2																				
RUN command source selection	003	0	b1-02	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n003→0</td> <td>b1-02→0</td> </tr> <tr> <td>n003→1</td> <td>b1-02→1</td> </tr> <tr> <td>n003→2</td> <td>b1-02→2</td> </tr> <tr> <td>n003→3</td> <td>b1-02→3</td> </tr> </tbody> </table>	V7AZ	V1000	n003→0	b1-02→0	n003→1	b1-02→1	n003→2	b1-02→2	n003→3	b1-02→3						
V7AZ	V1000																				
n003→0	b1-02→0																				
n003→1	b1-02→1																				
n003→2	b1-02→2																				
n003→3	b1-02→3																				
Frequency reference source selection	004	0	b1-01	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n004→0</td> <td>-</td> </tr> <tr> <td>n004→1</td> <td>b1-01→0</td> </tr> <tr> <td>n004→2</td> <td>b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0</td> </tr> <tr> <td>n004→3</td> <td>Term. A2: b1-01→1 and H3-09→2</td> </tr> <tr> <td>n004→4</td> <td>Term. A2: b1-01→1 and H3-09→3</td> </tr> <tr> <td>n004→5</td> <td>b1-01→4</td> </tr> <tr> <td>n004→6</td> <td>b1-01→2</td> </tr> </tbody> </table>	V7AZ	V1000	n004→0	-	n004→1	b1-01→0	n004→2	b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0	n004→3	Term. A2: b1-01→1 and H3-09→2	n004→4	Term. A2: b1-01→1 and H3-09→3	n004→5	b1-01→4	n004→6	b1-01→2
V7AZ	V1000																				
n004→0	-																				
n004→1	b1-01→0																				
n004→2	b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0																				
n004→3	Term. A2: b1-01→1 and H3-09→2																				
n004→4	Term. A2: b1-01→1 and H3-09→3																				
n004→5	b1-01→4																				
n004→6	b1-01→2																				
Frequency reference by analog input A2 (signal level) selection	004 078	0 1	H3-09	2	<table border="1"> <tbody> <tr> <td>n004→7 n078→0</td> <td>b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0</td> </tr> <tr> <td>n004→8 n078→1</td> <td>Term. A2: b1-01→1 and H3-09→2</td> </tr> <tr> <td>n004→9</td> <td>b1-01→3</td> </tr> </tbody> </table> <p>To use an analog input as frequency reference, the input function must be set to 0 in parameter H3-02 or H3-10. When using A2 make sure to set DIP switch S1 properly.</p>	n004→7 n078→0	b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0	n004→8 n078→1	Term. A2: b1-01→1 and H3-09→2	n004→9	b1-01→3										
n004→7 n078→0	b1-01→1 and if Term. A1: H3-01→0 if Term. A2: H3-09→0																				
n004→8 n078→1	Term. A2: b1-01→1 and H3-09→2																				
n004→9	b1-01→3																				
Stop method selection	005	0	b1-03	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n005→0</td> <td>b1-03→0</td> </tr> <tr> <td>n005→1</td> <td>b1-03→1</td> </tr> </tbody> </table>	V7AZ	V1000	n005→0	b1-03→0	n005→1	b1-03→1										
V7AZ	V1000																				
n005→0	b1-03→0																				
n005→1	b1-03→1																				

Drive Function/ Parameter	V7AZ		V1000		Comments						
	Parameter No.	Initial Value	Parameter No.	Initial Value							
Reverse run prohibit selection	006	0	b1-04	0	<table border="1"> <tr> <td>V7AZ</td> <td>V1000</td> </tr> <tr> <td>n006→0</td> <td>b1-04→0</td> </tr> <tr> <td>n006→1</td> <td>b1-04→1</td> </tr> </table>	V7AZ	V1000	n006→0	b1-04→0	n006→1	b1-04→1
V7AZ	V1000										
n006→0	b1-04→0										
n006→1	b1-04→1										
Operation panel STOP key function	007	0	o2-02	1	<table border="1"> <tr> <td>V7AZ</td> <td>V1000</td> </tr> <tr> <td>n007→0</td> <td>o2-02→1</td> </tr> <tr> <td>n007→1</td> <td>o2-02→0</td> </tr> </table>	V7AZ	V1000	n007→0	o2-02→1	n007→1	o2-02→0
V7AZ	V1000										
n007→0	o2-02→1										
n007→1	o2-02→0										
Frequency reference in local mode	008	0	-	-	no operator panel potentiometer, up/down keys can be used instead						
Frequency reference from operator ENTER key selection	009	0	o2-05	0	<table border="1"> <tr> <td>V7AZ</td> <td>V1000</td> </tr> <tr> <td>n009→0</td> <td>o2-05→0</td> </tr> <tr> <td>n009→1</td> <td>o2-05→1</td> </tr> </table>	V7AZ	V1000	n009→0	o2-05→0	n009→1	o2-05→1
V7AZ	V1000										
n009→0	o2-05→0										
n009→1	o2-05→1										
Operator panel disconnect fault detection selection	010	0	o2-06	0	<table border="1"> <tr> <td>V7AZ</td> <td>V1000</td> </tr> <tr> <td>n010→0</td> <td>o2-06 = 0</td> </tr> <tr> <td>n010→1</td> <td>o2-06 = 1</td> </tr> </table>	V7AZ	V1000	n010→0	o2-06 = 0	n010→1	o2-06 = 1
V7AZ	V1000										
n010→0	o2-06 = 0										
n010→1	o2-06 = 1										
Max. output frequency (FMAX)	011	50.0 Hz	E1-04	50.0 Hz							
Max. output voltage (VMAX)	012	200.0 V	E1-05	200 V							
Base frequency (FBASE)	013	50.0Hz	E1-06	50.0 Hz							
Mid. output frequency (FMID)	014	1.5Hz	E1-07	3.0 Hz							
Mid. output voltage (VMID)	015	12.0V	E1-08	15.0 V							
Min. output frequency (FMIN)	016	1.5Hz	E1-09	1.5 Hz							
Min. output voltage (VMIN)	017	12.0V	E1-10	9.0 V							
Acceleration / deceleration time resolution selection	018	0	C1-10	1	<table border="1"> <tr> <td>V7AZ</td> <td>V1000</td> </tr> <tr> <td>n018→0</td> <td>C1-10→1</td> </tr> <tr> <td>n018→1</td> <td>C1-10→0</td> </tr> </table>	V7AZ	V1000	n018→0	C1-10→1	n018→1	C1-10→0
V7AZ	V1000										
n018→0	C1-10→1										
n018→1	C1-10→0										
Acceleration time 1	019	10.0 s	C1-01	10.0 s							
Deceleration time 1	020	10.0 s	C1-02	10.0 s							
Acceleration time 2	021	10.0 s	C1-03	10.0 s							
Deceleration time 2	022	10.0 s	C1-04	10.0 s							

Drive Function/ Parameter	V7AZ		V1000		Comments												
	Parameter No.	Initial Value	Parameter No.	Initial Value													
S-curve at accel Start	023	0 (0 s)	C2-01	0.2 s	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n023→0</td> <td>C2-01→0 C2-02→0 C2-03→0 C2-04→0</td> </tr> <tr> <td>n023→1</td> <td>C2-01→0.2 s C2-02→0.2 s C2-03→0.2 s C2-04→0.2 s</td> </tr> <tr> <td>n023→2</td> <td>C2-01→0.5 s C2-02→0.5 s C2-03→0.5 s C2-04→0.5 s</td> </tr> <tr> <td>n023→3</td> <td>C2-01→ 1s C2-02→ 1s C2-03→ 1s C2-04→ 1s</td> </tr> </tbody> </table>	V7AZ	V1000	n023→0	C2-01→0 C2-02→0 C2-03→0 C2-04→0	n023→1	C2-01→0.2 s C2-02→0.2 s C2-03→0.2 s C2-04→0.2 s	n023→2	C2-01→0.5 s C2-02→0.5 s C2-03→0.5 s C2-04→0.5 s	n023→3	C2-01→ 1s C2-02→ 1s C2-03→ 1s C2-04→ 1s		
					V7AZ	V1000											
					n023→0	C2-01→0 C2-02→0 C2-03→0 C2-04→0											
					n023→1	C2-01→0.2 s C2-02→0.2 s C2-03→0.2 s C2-04→0.2 s											
n023→2	C2-01→0.5 s C2-02→0.5 s C2-03→0.5 s C2-04→0.5 s																
n023→3	C2-01→ 1s C2-02→ 1s C2-03→ 1s C2-04→ 1s																
Multi speed reference 1	024	6.00Hz	d1-01	0.00 Hz													
Multi speed reference 2	025	0.00Hz	d1-02	0.00 Hz													
Multi speed reference 3	026	0.00Hz	d1-03	0.00 Hz													
Multi speed reference 4	027	0.00Hz	d1-04	0.00 Hz													
Multi speed reference 5	028	0.00Hz	d1-05	0.00 Hz													
Multi speed reference 6	029	0.00Hz	d1-06	0.00 Hz													
Multi speed reference 7	030	0.00Hz	d1-07	0.00 Hz													
Multi speed reference 8	031	0.00Hz	d1-08	0.00 Hz													
Jog frequency	032	6.00Hz	d1-17	6.00Hz													
Frequency reference upper limit	033	100%	d2-01	100.0%													
Frequency reference lower limit	034	0%	d2-02	0.0%													
Display unit for frequency reference values.	035	0	o1-03	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n035→0</td> <td>o1-03→0</td> </tr> <tr> <td>n035→1</td> <td>o1-03→1</td> </tr> <tr> <td>n035→2~39</td> <td>o1-03→2 and set up E2-04, E4-04, E5-04</td> </tr> <tr> <td>n035→40~3999</td> <td>o1-03→3 and set up o1-10, o1-11</td> </tr> </tbody> </table>	V7AZ	V1000	n035→0	o1-03→0	n035→1	o1-03→1	n035→2~39	o1-03→2 and set up E2-04, E4-04, E5-04	n035→40~3999	o1-03→3 and set up o1-10, o1-11		
					V7AZ	V1000											
					n035→0	o1-03→0											
					n035→1	o1-03→1											
n035→2~39	o1-03→2 and set up E2-04, E4-04, E5-04																
n035→40~3999	o1-03→3 and set up o1-10, o1-11																
Motor rated current	036	-	E2-01	-	Depends on the drive capacity												
Motor overheat protection	037	0	L1-01	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n037→0</td> <td>L1-01→1</td> </tr> <tr> <td>n037→1</td> <td>L1-01→2 to 4</td> </tr> <tr> <td>n037→2</td> <td>L1-01→0</td> </tr> <tr> <td>n037→3</td> <td>Contact Omron</td> </tr> <tr> <td>n037→4</td> <td>Contact Omron</td> </tr> </tbody> </table>	V7AZ	V1000	n037→0	L1-01→1	n037→1	L1-01→2 to 4	n037→2	L1-01→0	n037→3	Contact Omron	n037→4	Contact Omron
					V7AZ	V1000											
					n037→0	L1-01→1											
					n037→1	L1-01→2 to 4											
					n037→2	L1-01→0											
n037→3	Contact Omron																
n037→4	Contact Omron																

Drive Function/ Parameter	V7AZ		V1000		Comments						
	Parameter No.	Initial Value	Parameter No.	Initial Value							
Motor protection time constant	038	8min	L1-02	1min	Needs not to be changed.						
Drive cooling fan operation selection	039	0	L8-10	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n039→0</td> <td>L8-10→0</td> </tr> <tr> <td>n039→1</td> <td>L8-10→1</td> </tr> </tbody> </table>	V7AZ	V1000	n039→0	L8-10→0	n039→1	L8-10→1
V7AZ	V1000										
n039→0	L8-10→0										
n039→1	L8-10→1										
Motor rotation direction	040	0	b1-14	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n040→0</td> <td>b1-14→0</td> </tr> <tr> <td>n040→1</td> <td>b1-14→1</td> </tr> </tbody> </table>	V7AZ	V1000	n040→0	b1-14→0	n040→1	b1-14→1
V7AZ	V1000										
n040→0	b1-14→0										
n040→1	b1-14→1										
Acceleration Time 3	041	10 s	C1-05	10.0 s	In V1000 also used as Accel Time 1 for Motor 2						
Deceleration Time 3	042	10 s	C1-06	10.0 s	In V1000 also used as Decel Time 1 for Motor 2						
Acceleration Time 4	043	10 s	C1-07	10.0 s	In V1000 also used as Accel Time 2 for Motor 2						
Deceleration Time 4	044	10 s	C1-08	10.0 s	In V1000 also used as Decel Time 2 for Motor 2						
Frequency reference bias step value (up/down2)	045	0.0Hz	d4-03	0.0Hz							
Frequency reference bias accel/decel rate (up/down2)	046	0	d4-04	0							
Frequency reference bias operation mode selection (up/down2)	047	0	d4-05	0							
Frequency reference bias value (up/down2)	048	0.0%	d4-06	0.0%							
Analog frequency reference fluctuation limit (up/down2)	049	1.0%	d4-07	1.0%							

Drive Function/ Parameter	V7AZ		V1000		Comments																																
	Parameter No.	Initial Value	Parameter No.	Initial Value																																	
Terminal S1 function selection	050	1	H1-01	40	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr><td>n050~56→1</td><td>H1-01~H1-06→40</td></tr> <tr><td>n050~56→2</td><td>H1-01~H1-06→41</td></tr> <tr><td>n050~56→3</td><td>H1-01~H1-06→24</td></tr> <tr><td>n050~56→4</td><td>H1-01~H1-06→25</td></tr> <tr><td>n050~56→5</td><td>H1-01~H1-06→14</td></tr> <tr><td>n050~56→6</td><td>H1-01~H1-06→3</td></tr> </tbody> </table>	V7AZ	V1000	n050~56→1	H1-01~H1-06→40	n050~56→2	H1-01~H1-06→41	n050~56→3	H1-01~H1-06→24	n050~56→4	H1-01~H1-06→25	n050~56→5	H1-01~H1-06→14	n050~56→6	H1-01~H1-06→3																		
					V7AZ	V1000																															
					n050~56→1	H1-01~H1-06→40																															
					n050~56→2	H1-01~H1-06→41																															
					n050~56→3	H1-01~H1-06→24																															
					n050~56→4	H1-01~H1-06→25																															
n050~56→5	H1-01~H1-06→14																																				
n050~56→6	H1-01~H1-06→3																																				
Terminal S2 function selection	051	2	H1-02	41	<table border="1"> <tbody> <tr><td>n050~56→7</td><td>H1-01~H1-06→4</td></tr> <tr><td>n050~56→8</td><td>H1-01~H1-06→5</td></tr> <tr><td>n050~56→9</td><td>H1-01~H1-06→32</td></tr> <tr><td>n050~56→10</td><td>H1-01~H1-06→6</td></tr> <tr><td>n050~56→11</td><td>H1-01~H1-06→7</td></tr> <tr><td>n050~56→12</td><td>H1-01~H1-06→8</td></tr> <tr><td>n050~56→13</td><td>H1-01~H1-06→9</td></tr> <tr><td>n050~56→14</td><td>H1-01~H1-06→61</td></tr> <tr><td>n050~56→15</td><td>H1-01~H1-06→62</td></tr> <tr><td>n050~56→16</td><td>H1-01~H1-06→A</td></tr> <tr><td>n050~56→17</td><td>H1-01~H1-06→1</td></tr> <tr><td>n050~56→18</td><td>H1-01~H1-06→2</td></tr> <tr><td>n050~56→19</td><td>H1-01~H1-06→20</td></tr> <tr><td>n005→0</td><td></td></tr> <tr><td>n050~56→19</td><td>H1-01~H1-06→24</td></tr> <tr><td>n005→1</td><td></td></tr> </tbody> </table>	n050~56→7	H1-01~H1-06→4	n050~56→8	H1-01~H1-06→5	n050~56→9	H1-01~H1-06→32	n050~56→10	H1-01~H1-06→6	n050~56→11	H1-01~H1-06→7	n050~56→12	H1-01~H1-06→8	n050~56→13	H1-01~H1-06→9	n050~56→14	H1-01~H1-06→61	n050~56→15	H1-01~H1-06→62	n050~56→16	H1-01~H1-06→A	n050~56→17	H1-01~H1-06→1	n050~56→18	H1-01~H1-06→2	n050~56→19	H1-01~H1-06→20	n005→0		n050~56→19	H1-01~H1-06→24	n005→1	
					n050~56→7	H1-01~H1-06→4																															
					n050~56→8	H1-01~H1-06→5																															
					n050~56→9	H1-01~H1-06→32																															
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n005→0																																					
n050~56→19	H1-01~H1-06→24																																				
n005→1																																					
Terminal S3 function selection	052	3	H1-03	24	<table border="1"> <tbody> <tr><td>n050~56→20</td><td>H1-01~H1-06→2C</td></tr> <tr><td>n005→0, 1</td><td></td></tr> <tr><td>n050~56→21</td><td>H1-01~H1-06→21</td></tr> <tr><td>n005→0</td><td></td></tr> <tr><td>n050~56→21</td><td>H1-01~H1-06→25</td></tr> <tr><td>n005→1</td><td></td></tr> <tr><td>n050~56→22</td><td>H1-01~H1-06→2D</td></tr> <tr><td>n005→0, 1</td><td></td></tr> <tr><td>n050~56→23</td><td>H1-01~H1-06→19</td></tr> <tr><td>n050~56→24</td><td>H1-01~H1-06→30</td></tr> <tr><td>n050~56→25</td><td>H1-01~H1-06→31</td></tr> <tr><td>n050~56→26</td><td>H1-01~H1-06→B</td></tr> <tr><td>n050~56→27</td><td>H1-01~H1-06→1A</td></tr> <tr><td>n052→0</td><td>H1-03→0</td></tr> <tr><td>n050~56→28</td><td>H1-01~H1-06→16</td></tr> <tr><td>n050~56→29</td><td>Under development</td></tr> </tbody> </table>	n050~56→20	H1-01~H1-06→2C	n005→0, 1		n050~56→21	H1-01~H1-06→21	n005→0		n050~56→21	H1-01~H1-06→25	n005→1		n050~56→22	H1-01~H1-06→2D	n005→0, 1		n050~56→23	H1-01~H1-06→19	n050~56→24	H1-01~H1-06→30	n050~56→25	H1-01~H1-06→31	n050~56→26	H1-01~H1-06→B	n050~56→27	H1-01~H1-06→1A	n052→0	H1-03→0	n050~56→28	H1-01~H1-06→16	n050~56→29	Under development
					n050~56→20	H1-01~H1-06→2C																															
					n005→0, 1																																
					n050~56→21	H1-01~H1-06→21																															
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n050~56→28	H1-01~H1-06→16																																				
n050~56→29	Under development																																				
Terminal S4 function selection	053	5	H1-04	14	<table border="1"> <tbody> <tr><td>n050~56→30</td><td>H1-01~H1-06→44</td></tr> <tr><td>n050~56→31</td><td>H1-01~H1-06→45</td></tr> <tr><td>n050~56→32</td><td>H1-01~H1-06→46</td></tr> <tr><td>n050~56→33</td><td>H1-01~H1-06→0F</td></tr> <tr><td>n050~56→37</td><td>H1-01~H1-06 →42,43</td></tr> </tbody> </table>	n050~56→30	H1-01~H1-06→44	n050~56→31	H1-01~H1-06→45	n050~56→32	H1-01~H1-06→46	n050~56→33	H1-01~H1-06→0F	n050~56→37	H1-01~H1-06 →42,43																						
					n050~56→30	H1-01~H1-06→44																															
					n050~56→31	H1-01~H1-06→45																															
					n050~56→32	H1-01~H1-06→46																															
					n050~56→33	H1-01~H1-06→0F																															
					n050~56→37	H1-01~H1-06 →42,43																															
Terminal S5 function selection	054	6	H1-05	3	<table border="1"> <tbody> <tr><td>n050~56→34</td><td>H1-01~H1-06 →10,11</td></tr> <tr><td>n050~56→35</td><td>H1-01~H1-06→67</td></tr> <tr><td>n050~56→36</td><td>H1-01~H1-06 →75,76</td></tr> </tbody> </table>	n050~56→34	H1-01~H1-06 →10,11	n050~56→35	H1-01~H1-06→67	n050~56→36	H1-01~H1-06 →75,76																										
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					n050~56→36	H1-01~H1-06 →75,76																															
					Terminal S6 function selection	055	7	H1-06	4	Terminal S7 does not exist, S1-S6 have to be used																											
										Terminal S7 function selection	056	10	-	-	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr><td>n056→34</td><td>H1-01~H1-06 →10,11</td></tr> <tr><td>n056→35</td><td>H1-01~H1-06→67</td></tr> <tr><td>n056→36</td><td>H1-01~H1-06 →75,76</td></tr> </tbody> </table>	V7AZ	V1000	n056→34	H1-01~H1-06 →10,11	n056→35	H1-01~H1-06→67	n056→36	H1-01~H1-06 →75,76														
V7AZ	V1000																																				
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n056→36	H1-01~H1-06 →75,76																																				

Drive Function/ Parameter	V7AZ		V1000		Comments	
	Parameter No.	Initial Value	Parameter No.	Initial Value		
Terminal MA,MB,MC function selection	057	0	H2-01	E	V7AZ	V1000
					n057~59→0	H2-01~03→E
					n057~59→1	H2-01~03→0
					n057~59→2	H2-01~03→2
					n057~59→3	H2-01~03→1
					n057~59→4	H2-01~03→5
					n057~59→5	H2-01~03→4
Terminal P1 function selection (Open collector)	058	1	H2-02	0	n057~59→6	H2-01~03→B,18
					n057~59→7	H2-01~03→17,19
					n057~59→8	H2-01~03→B,18
					n057~59→9	H2-01~03→17,19
					n057~59→10	H2-01~03→10
					n057~59→11	H2-01~03→8
					n057~59→12	H2-01~03→3C
					n057~59→13	H2-01~03→6
					n057~59→14	H2-01~03→1E
					n057~59→15	H2-01~03→7
Terminal P2 function selection (Open collector)	059	2	H2-03	2	n057~59→16	H2-01~03→1A
					n057~59→17	H2-01~03→3D
					n057~59→18	H2-01~03→0F
					n057~59→19	H2-01~03→3E
					n057~59→20	H2-01~03→C
					n057~59→21	H2-01~03→(1F), 20
					n057~59→22	H2-01~03→1C
					Analog input FR (A1) gain	060
Analog input FR (A2) bias	061	0%	H3-04	0%		
Analog input filter time constant	062	0.10 s	H3-13	0.03 s		
SI-T Watchdog error operation selection	063	0	-	-	Under development	
Operation at frequency reference loss selection	064	0	L4-05	0	V7AZ	V1000
			L4-06	80.0 %	n064→0	L4-05→0
					n064→1	L4-05→1 and L4-06→fref value
Analog output AM Monitor type selection	065	0	-	-	V1000 has separate analog and pulse train output. For analog output set H4-xx, for pulse output set H6-06	
Analog output AM function selection	066	0	H4-01	102	V7AZ	V1000
					n066→0	H4-01→102
					n066→1	H4-01→103
					n066→2	H4-01→107
					n066→3	H4-01→109
					n066→4	H4-01→108
					n066→5	H4-01→106
					n066→6	H4-01→101
					n066→7	H4-01→619
n066→8	H4-01→000, 031					

Drive Function/ Parameter	V7AZ		V1000		Comments														
	Parameter No.	Initial Value	Parameter No.	Initial Value															
Analog output AM gain	067	1.00	H4-02	100.0%															
Analog frequency ref. gain (Volt. input CN2) → Terminal A2 gain	068	100%	H3-11	100.0%	H3-09 must be set to 0 or 1 (Voltage Input)														
Analog freq. reference gain (Volt. input CN2) → Terminal A2 bias	069	0%	H3-12	0.0%	H3-09 must be set to 0 or 1 (Voltage input)														
Analog frequency ref. filter (Volt. input CN2)	070	0.10s	H3-13	0.03	Filter time H3-13 is the same for analog input A1 and A2 in V1000														
Analog frequency ref. gain (Cur. input CN2) → Terminal A2 gain	071	100%	H3-11	100.0%	H3-09 must be set to 2 or 3 (Current input)														
Analog frequency ref. gain (Cur. input CN2) → Terminal A2 gain	072	0%	H3-12	0.0%															
Analog frequency ref. filter (Volt. input CN2)	073	0.10s	H3-13	0.03	Filter time H3-13 is the same for analog input A1 and A2 in V1000														
Pulse input gain	074	100%	H6-03	100.0%															
Pulse input bias	075	0%	H6-04	0.0%															
Pulse input filter time	076	0.10 s	H6-05	0.10 s															
Analog input function selection (CN2→ Terminal A2)	077	0	H3-10	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n077→0</td> <td>H3-10→F</td> </tr> <tr> <td>n077→1</td> <td>H3-10→2</td> </tr> <tr> <td>n077→2</td> <td>H3-10→1</td> </tr> <tr> <td>n077→3</td> <td>H3-10→0</td> </tr> <tr> <td>n077→4</td> <td>H3-10→4</td> </tr> </tbody> </table>	V7AZ	V1000	n077→0	H3-10→F	n077→1	H3-10→2	n077→2	H3-10→1	n077→3	H3-10→0	n077→4	H3-10→4		
V7AZ	V1000																		
n077→0	H3-10→F																		
n077→1	H3-10→2																		
n077→2	H3-10→1																		
n077→3	H3-10→0																		
n077→4	H3-10→4																		
Analog input signal selection (CN2→ Terminal A2)	078	0	H3-09 / switch S1	3 / S1 = I	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n078→0</td> <td>H3-09→0 and S1 = V</td> </tr> <tr> <td>n078→1</td> <td>H3-09→2 And S1 = I</td> </tr> </tbody> </table>	V7AZ	V1000	n078→0	H3-09→0 and S1 = V	n078→1	H3-09→2 And S1 = I								
V7AZ	V1000																		
n078→0	H3-09→0 and S1 = V																		
n078→1	H3-09→2 And S1 = I																		
Frequency reference bias max. value for terminal CN2 reference input → terminal A2	079	10%	-	-	<p>For voltage input at terminal A2 the following has to be done:</p> <ul style="list-style-type: none"> ○ H3-09 → 1 (voltage input w/o limit) ○ H3-10→0 (frequency bias) ○ enter n079 value into H3-11 ○ enter negative n079 value into H3-12 														
Carrier frequency selection	080	4	C6-02	o2-04 dep.	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n080→1</td> <td>C6-02→1 (2kHz)</td> </tr> <tr> <td>n080→2</td> <td>C6-02→2 (5kHz)</td> </tr> <tr> <td>n080→3</td> <td>C6-02→3 (8kHz)</td> </tr> <tr> <td>n080→4</td> <td>C6-02→4 (10kHz)</td> </tr> <tr> <td>n080→12</td> <td>C6-02→5 (12.5kHz) C6-02→6 (15kHz)</td> </tr> <tr> <td>n080→7~9</td> <td>C6-03/04/05 must be used</td> </tr> </tbody> </table>	V7AZ	V1000	n080→1	C6-02→1 (2kHz)	n080→2	C6-02→2 (5kHz)	n080→3	C6-02→3 (8kHz)	n080→4	C6-02→4 (10kHz)	n080→12	C6-02→5 (12.5kHz) C6-02→6 (15kHz)	n080→7~9	C6-03/04/05 must be used
V7AZ			V1000																
n080→1			C6-02→1 (2kHz)																
n080→2			C6-02→2 (5kHz)																
n080→3	C6-02→3 (8kHz)																		
n080→4	C6-02→4 (10kHz)																		
n080→12	C6-02→5 (12.5kHz) C6-02→6 (15kHz)																		
n080→7~9	C6-03/04/05 must be used																		
Carrier frequency upper limit	C6-03	C6-02 dep.																	
Carrier frequency lower limit	C6-04	C6-02 dep.																	
Carrier frequency proportional gain	C6-05	0																	

Drive Function/ Parameter	V7AZ		V1000		Comments																																				
	Parameter No.	Initial Value	Parameter No.	Initial Value																																					
Momentary power loss detection selection	081	0	L2-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n081→0</td> <td>L2-01→0</td> </tr> <tr> <td>n081→1</td> <td>L2-01→1</td> </tr> <tr> <td>n081→2</td> <td>L2-01→2</td> </tr> </tbody> </table>	V7AZ	V1000	n081→0	L2-01→0	n081→1	L2-01→1	n081→2	L2-01→2																												
V7AZ	V1000																																								
n081→0	L2-01→0																																								
n081→1	L2-01→1																																								
n081→2	L2-01→2																																								
Automatic fault reset attempts	082	0	L5-01	0																																					
Jump frequency 1 / (Offset frequency 1)	083	0.0Hz	d3-01 / d7-01	0.0Hz	<p>In V7AZ the parameters n083 to n085 are used double (for jump frequencies and offset frequencies) depending on n146 setting.</p> <p>n146=0y → d3-01... = n083....</p> <p>n146=1y → d7-01=+/-n083 * 100 / fmax</p> <p>n146=2y → d7-01=+/-n083</p> <p>Values on d7-0x could be set in +/- % values so it's necessary to transform the V7 parameters when offset is defined in Hz</p> <p>2nd digit of n146 also define the sign of the offset, use this table for conversion</p> <table border="1"> <thead> <tr> <th>y</th> <th>n083</th> <th>n084</th> <th>n085</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>+</td> <td>+</td> <td>+</td> </tr> <tr> <td>1</td> <td>-</td> <td>+</td> <td>+</td> </tr> <tr> <td>2</td> <td>+</td> <td>-</td> <td>+</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> <td>+</td> </tr> <tr> <td>4</td> <td>+</td> <td>+</td> <td>-</td> </tr> <tr> <td>5</td> <td>-</td> <td>+</td> <td>-</td> </tr> <tr> <td>6</td> <td>+</td> <td>-</td> <td>-</td> </tr> <tr> <td>7,8,9</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	y	n083	n084	n085	0	+	+	+	1	-	+	+	2	+	-	+	3	-	-	+	4	+	+	-	5	-	+	-	6	+	-	-	7,8,9	-	-	-
y	n083	n084	n085																																						
0	+	+	+																																						
1	-	+	+																																						
2	+	-	+																																						
3	-	-	+																																						
4	+	+	-																																						
5	-	+	-																																						
6	+	-	-																																						
7,8,9	-	-	-																																						
Jump frequency 2 / (Offset frequency 2)	084	0.0Hz	d3-02 / d7-02	0.0Hz																																					
Jump frequency 3 / (Offset frequency 3)	085	0.0Hz	d3-03 / d7-03	0.0Hz																																					
Jump frequency bandwidth	086	0.0Hz	d3-04	1.0Hz																																					
Operation time counter selection (for V7AZ from 5.5 to 7.5 kW only)	087	0	o4-02	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n087→0</td> <td>o4-02→0</td> </tr> <tr> <td>n087→1</td> <td>o4-02→1</td> </tr> </tbody> </table>	V7AZ	V1000	n087→0	o4-02→0	n087→1	o4-02→1																														
V7AZ	V1000																																								
n087→0	o4-02→0																																								
n087→1	o4-02→1																																								
Accumulated operation time (for V7AZ from 5.5 to 7.5 kW only)	088	0H	o4-01	0H																																					
DC injection braking current	089	50%	b2-02	50%																																					
DC injection time at stop	090	0.5 s	b2-04	0.5s																																					
DC injection time at start	091	0 s	b2-03	0 s																																					
Stall prevention during deceleration	092	0	L3-04	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n092→0</td> <td>L3-04→1</td> </tr> <tr> <td>n092→1</td> <td>L3-04→0</td> </tr> </tbody> </table>	V7AZ	V1000	n092→0	L3-04→1	n092→1	L3-04→0																														
V7AZ	V1000																																								
n092→0	L3-04→1																																								
n092→1	L3-04→0																																								
Stall prevention level during acceleration	093	170%	L3-02	-	Initial value depends on Duty mode selection (C6-01).																																				
Stall prevention level during run	094	160%	L3-06	-	Initial value depends on Duty mode selection (C6-01)																																				
Output frequency detection level (DO)	095	0.00Hz	L4-01	0.0Hz																																					

Drive Function/ Parameter	V7AZ		V1000		Comments												
	Parameter No.	Initial Value	Parameter No.	Initial Value													
Over torque detection	096	0 0	L6-01 L6-04	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n096→0</td> <td>L6-01/04→0</td> </tr> <tr> <td>n096→1</td> <td>L6-01/04→1</td> </tr> <tr> <td>n096→2</td> <td>L6-01/04→3</td> </tr> <tr> <td>n096→3</td> <td>L6-01/04→2</td> </tr> <tr> <td>n096→4</td> <td>L6-01/04→4</td> </tr> </tbody> </table> (Two detection circuits)	V7AZ	V1000	n096→0	L6-01/04→0	n096→1	L6-01/04→1	n096→2	L6-01/04→3	n096→3	L6-01/04→2	n096→4	L6-01/04→4
V7AZ	V1000																
n096→0	L6-01/04→0																
n096→1	L6-01/04→1																
n096→2	L6-01/04→3																
n096→3	L6-01/04→2																
n096→4	L6-01/04→4																
Torque selection in vector mode	097	0	-	-	The torque reference value (U1-09) is always used as comparison value for torque detection in vector control.												
Over torque detection level	098	160% 10%	L6-02 L6-05	150%	(Two detection circuits)												
Over torque detection time	099	0.1 s	L6-03 L6-06	0.1 s	(Two detection circuits)												
Frequency reference hold selection (up/down function)	100	0	d4-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n100→0</td> <td>d4-01→0</td> </tr> <tr> <td>n100→1</td> <td>d4-01→1</td> </tr> </tbody> </table>	V7AZ	V1000	n100→0	d4-01→0	n100→1	d4-01→1						
V7AZ	V1000																
n100→0	d4-01→0																
n100→1	d4-01→1																
Speed search deceleration time	101	2.0 s	b3-03	2.0 s													
Speed search deactivation current	102	150%	b3-02	A1-02 dep.													
Torque compensation gain	103	1.0	C4-01	1.00													
Torque compensation time constant	104	0.3 s	C4-02	A1-02 dep.													
Torque compensation iron losses	105		E2-10	-	Value is drive capacity dependent												
Motor rated slip	106		E2-02	-													
Motor line-to-line resistance	107		E2-05	-	Value is drive capacity dependent n108 and E2-06 units are different so it's necessary to transform the value following that formula $L[\%] = \frac{I_{mot} \cdot \sqrt{3} \cdot 2 \cdot \pi \cdot F_{base} \cdot L[H] \cdot 100}{V_{base}}$												
Motor leakage inductance	108		E2-06	-													
Motor no-load current	110		E2-03	-													
Slip compensation gain	111	0.0	C3-01	-	L[H] is taken from n108 I _{mot} = n036 V _{base} = n012 and F _{base} = n013 For n110 and E2-03 also is necessary to transform. E2-03 = n110 / 100 * Inverter output current Better perform an auto-tuning procedure.												
Slip compensation time constant	112	2.0 s	C3-02	-													
Slip compensation in regenerative mode selection	113	0	C3-04	0													
SI-T Transmission Cycle Error Detection	114	2	-	-	Under development												

Drive Function/ Parameter	V7AZ		V1000		Comments																				
	Parameter No.	Initial Value	Parameter No.	Initial Value																					
Stall prevention level reduction during run in constant power range	115	0	L3-23	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n115→0</td> <td>L3-23→0</td> </tr> <tr> <td>n115→1</td> <td>L3-23→1</td> </tr> </tbody> </table>	V7AZ	V1000	n115→0	L3-23→0	n115→1	L3-23→1														
V7AZ	V1000																								
n115→0	L3-23→0																								
n115→1	L3-23→1																								
Stall prevention during run selection	116	0	L3-05	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n116→0</td> <td>L3-05→0</td> </tr> <tr> <td>n116→1</td> <td>L3-05→2</td> </tr> </tbody> </table>	V7AZ	V1000	n116→0	L3-05→0	n116→1	L3-05→2														
V7AZ	V1000																								
n116→0	L3-05→0																								
n116→1	L3-05→2																								
Under torque detection	117	0	L6-01 L6-04	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n117→0</td> <td>L6-01/04→0</td> </tr> <tr> <td>n117→1</td> <td>L6-01/04→5</td> </tr> <tr> <td>n117→2</td> <td>L6-01/04→7</td> </tr> <tr> <td>n117→3</td> <td>L6-01/04→6</td> </tr> <tr> <td>n117→4</td> <td>L6-01/04→8</td> </tr> </tbody> </table> <p>(Two detection circuits)</p>	V7AZ	V1000	n117→0	L6-01/04→0	n117→1	L6-01/04→5	n117→2	L6-01/04→7	n117→3	L6-01/04→6	n117→4	L6-01/04→8								
V7AZ	V1000																								
n117→0	L6-01/04→0																								
n117→1	L6-01/04→5																								
n117→2	L6-01/04→7																								
n117→3	L6-01/04→6																								
n117→4	L6-01/04→8																								
Under torque detection level	118	10%	L6-02 L6-05	150%	(Two detection circuits)																				
Under torque detection time	119	0.1 s	L6-03 L6-06	0.1 s	(Two detection circuits)																				
Multi speed reference 9	120	0.00Hz	d1-09	0.00Hz																					
Multi speed reference 10	121	0.00Hz	d1-10	0.00Hz																					
Multi speed reference 11	122	0.00Hz	d1-11	0.00Hz																					
Multi speed reference 12	123	0.00Hz	d1-12	0.00Hz																					
Multi speed reference 13	124	0.00Hz	d1-13	0.00Hz																					
Multi speed reference 14	125	0.00Hz	d1-14	0.00Hz																					
Multi speed reference 15	126	0.00Hz	d1-15	0.00Hz																					
Multi speed reference 16	127	0.00Hz	d1-16	0.00Hz																					
PID control selection	128	0	b5-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n128→0</td> <td>b5-01→0</td> </tr> <tr> <td>n128→1</td> <td>b5-01→1</td> </tr> <tr> <td>n128→2</td> <td>b5-01→2</td> </tr> <tr> <td>n128→3</td> <td>b5-01→3</td> </tr> <tr> <td>n128→4</td> <td>b5-01→4</td> </tr> <tr> <td>n128→5</td> <td>b5-01→1</td> </tr> <tr> <td>n128→6</td> <td>b5-01→2</td> </tr> <tr> <td>n128→7</td> <td>b5-01→3</td> </tr> <tr> <td>n128→8</td> <td>b5-01→4</td> </tr> </tbody> </table>	V7AZ	V1000	n128→0	b5-01→0	n128→1	b5-01→1	n128→2	b5-01→2	n128→3	b5-01→3	n128→4	b5-01→4	n128→5	b5-01→1	n128→6	b5-01→2	n128→7	b5-01→3	n128→8	b5-01→4
V7AZ					V1000																				
n128→0					b5-01→0																				
n128→1					b5-01→1																				
n128→2			b5-01→2																						
n128→3			b5-01→3																						
n128→4			b5-01→4																						
n128→5			b5-01→1																						
n128→6	b5-01→2																								
n128→7	b5-01→3																								
n128→8	b5-01→4																								
PID output mode selection	b5-09	0	b5-09→0																						
				b5-09→1																					
PID feedback gain	129	1.0	H3-11		100%	Use the feed back signal gain (in this case analog input A2 gain)																			

Drive Function/ Parameter	V7AZ		V1000		Comments												
	Parameter No.	Initial Value	Parameter No.	Initial Value													
PID proportional gain (P)	130	1.0	b5-02	1.00													
PID integral time (I)	131	1.0 s	b5-03	1.0 s													
PID derivative time (D)	132	0.0 s	b5-05	0.00 s													
PID output offset	133	0.0%	b5-07	0.0%													
PID integral limit	134	100%	b5-04	100%													
PID output delay time	135	0.0 s	b5-08	0.00 s													
PID feedback loss detection	136	0	b5-12	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n136→0</td> <td>b5-12→0</td> </tr> <tr> <td>n136→1</td> <td>b5-12→1</td> </tr> <tr> <td>n136→2</td> <td>b5-12→2</td> </tr> </tbody> </table>	V7AZ	V1000	n136→0	b5-12→0	n136→1	b5-12→1	n136→2	b5-12→2				
V7AZ	V1000																
n136→0	b5-12→0																
n136→1	b5-12→1																
n136→2	b5-12→2																
PID feedback loss detection level	137	0%	b5-13	0%													
PID feedback loss detection time	138	1.0 s	b5-14	1.0 s													
Auto tuning selection	139	0	T1-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n139→0</td> <td></td> </tr> <tr> <td>n139→1</td> <td>T1-01→0</td> </tr> <tr> <td>n139→2</td> <td>T1-01→2</td> </tr> </tbody> </table>	V7AZ	V1000	n139→0		n139→1	T1-01→0	n139→2	T1-01→2				
V7AZ	V1000																
n139→0																	
n139→1	T1-01→0																
n139→2	T1-01→2																
Motor 2 maximum output frequency	140	50.0 Hz	E3-04	50.0 Hz	Default setting in V1000 depends on control mode and o2-09 setting range by drive capacity and V/f pattern selection												
PTC thermistor input motor overheat protection selection	141	0	L1-03 L1-04	3 1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n141→0</td> <td>-</td> </tr> <tr> <td>n141→1</td> <td rowspan="4">L1-03 →3</td> </tr> <tr> <td>n141→2,5</td> <td>L1-04→0</td> </tr> <tr> <td>n141→3,6</td> <td>L1-04→2 n022→C1-09</td> </tr> <tr> <td>n141→4,7</td> <td>L1-04→1</td> </tr> </tbody> </table>	V7AZ	V1000	n141→0	-	n141→1	L1-03 →3	n141→2,5	L1-04→0	n141→3,6	L1-04→2 n022→C1-09	n141→4,7	L1-04→1
V7AZ	V1000																
n141→0	-																
n141→1	L1-03 →3																
n141→2,5		L1-04→0															
n141→3,6		L1-04→2 n022→C1-09															
n141→4,7		L1-04→1															
Motor temperature input filter time constant	142	0.2 sec	L1-05	0.2 sec													
Sequence input redundant reading selection	143	0	-	-	n143 = 1 Function is not necessary due faster scan cycle on V1000												
Stop position control selection					n143 = 2 (Simple positioning control) will be implemented in the future												
Stop position control compensation gain	144	1.00	-	-	Function not necessary in V1000												
Bi-directional function selection	145	0	-	-	Application dependant. Please contact supplier												
Frequency offset selection	146	0	-	-	n146=0x → d3-01=n083.... n146=1x → d7-01=+/-n083 * 100 / fmax n146=2x → d7-01=+/-n083												
Motor 2 maximum voltage output frequency	147	50.0 Hz	E3-06	50.0 Hz													
Pulse input scaling	149	2500 Hz	H6-02	1440Hz													

Drive Function/ Parameter	V7AZ		V1000		Comments																																			
	Parameter No.	Initial Value	Parameter No.	Initial Value																																				
Pulse output function selection	150	0	H6-06	102	<table border="1"> <thead> <tr> <th>V7AZ</th> <th colspan="2">V1000</th> </tr> <tr> <td></td> <th>H6-06</th> <th>H6-07</th> </tr> </thead> <tbody> <tr> <td>n150→0</td> <td rowspan="6">102</td> <td>1440</td> </tr> <tr> <td>n150→1</td> <td>E1-04</td> </tr> <tr> <td>n150→6</td> <td>6xE1-04</td> </tr> <tr> <td>n150→12</td> <td>12xE1-04</td> </tr> <tr> <td>n150→24</td> <td>24xE1-04</td> </tr> <tr> <td>n150→36</td> <td>36xE1-04</td> </tr> <tr> <td>n150→40</td> <td rowspan="5">101</td> <td>1440</td> </tr> <tr> <td>n150→41</td> <td>E1-04</td> </tr> <tr> <td>n150→42</td> <td>6xE1-04</td> </tr> <tr> <td>n150→43</td> <td>12xE1-04</td> </tr> <tr> <td>n150→44</td> <td>24xE1-04</td> </tr> <tr> <td>n150→45</td> <td>36xE1-04</td> </tr> <tr> <td>n150→50</td> <td>000 or 0031</td> <td>-</td> </tr> </tbody> </table>	V7AZ	V1000			H6-06	H6-07	n150→0	102	1440	n150→1	E1-04	n150→6	6xE1-04	n150→12	12xE1-04	n150→24	24xE1-04	n150→36	36xE1-04	n150→40	101	1440	n150→41	E1-04	n150→42	6xE1-04	n150→43	12xE1-04	n150→44	24xE1-04	n150→45	36xE1-04	n150→50	000 or 0031	-
V7AZ			V1000																																					
			H6-06	H6-07																																				
n150→0			102	1440																																				
n150→1				E1-04																																				
n150→6				6xE1-04																																				
n150→12				12xE1-04																																				
n150→24				24xE1-04																																				
n150→36				36xE1-04																																				
n150→40			101	1440																																				
n150→41	E1-04																																							
n150→42	6xE1-04																																							
n150→43	12xE1-04																																							
n150→44	24xE1-04																																							
n150→45	36xE1-04																																							
n150→50	000 or 0031	-																																						
Pulse output scaling			H6-07	1440Hz																																				
Memobus communication error behavior selection	151	0	H5-04	3	<table border="1"> <thead> <tr> <th>V7AZ</th> <th colspan="2">V1000</th> </tr> <tr> <td></td> <th>H5-04</th> <th>H5-05</th> </tr> </thead> <tbody> <tr> <td>n151→0</td> <td>1</td> <td rowspan="5">1</td> </tr> <tr> <td>n151→1</td> <td>0 (act. Ramp)</td> </tr> <tr> <td>n151→2</td> <td>2 (C1-09)</td> </tr> <tr> <td>n151→3</td> <td>3</td> </tr> <tr> <td>n151→4</td> <td>No effect</td> <td>0</td> </tr> </tbody> </table>	V7AZ	V1000			H5-04	H5-05	n151→0	1	1	n151→1	0 (act. Ramp)	n151→2	2 (C1-09)	n151→3	3	n151→4	No effect	0																	
V7AZ			V1000																																					
			H5-04	H5-05																																				
n151→0			1	1																																				
n151→1			0 (act. Ramp)																																					
n151→2	2 (C1-09)																																							
n151→3	3																																							
n151→4	No effect	0																																						
Memobus communication error detection			H5-05	1																																				
Memobus frequency reference and monitor units	152	1	o1-03	0	Not independent units for RS422 communication so same setting than n035 should be used																																			
Memobus slave address	153	0	H5-01	1F																																				
Memobus communication Speed selection	154	2	H5-02	3	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n154→0</td> <td>H5-02→1</td> </tr> <tr> <td>n154→1</td> <td>H5-02→2</td> </tr> <tr> <td>n154→2</td> <td>H5-02→3</td> </tr> <tr> <td>n154→3</td> <td>H5-02→4</td> </tr> </tbody> </table>	V7AZ	V1000	n154→0	H5-02→1	n154→1	H5-02→2	n154→2	H5-02→3	n154→3	H5-02→4																									
V7AZ	V1000																																							
n154→0	H5-02→1																																							
n154→1	H5-02→2																																							
n154→2	H5-02→3																																							
n154→3	H5-02→4																																							
Memobus parity selection	155	0	H5-03	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n155→0</td> <td>H5-03→1</td> </tr> <tr> <td>n155→1</td> <td>H5-03→2</td> </tr> <tr> <td>n155→2</td> <td>H5-03→0</td> </tr> </tbody> </table>	V7AZ	V1000	n155→0	H5-03→1	n155→1	H5-03→2	n155→2	H5-03→0																											
V7AZ	V1000																																							
n155→0	H5-03→1																																							
n155→1	H5-03→2																																							
n155→2	H5-03→0																																							
Transmission wait time	156	10ms	H5-06	5ms																																				

Drive Function/ Parameter	V7AZ		V1000		Comments						
	Parameter No.	Initial Value	Parameter No.	Initial Value							
RTS flow control on/off	157	0	H5-07	1	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n157→0</td> <td>H5-07→1</td> </tr> <tr> <td>n157→1</td> <td>H5-07→0</td> </tr> </tbody> </table>	V7AZ	V1000	n157→0	H5-07→1	n157→1	H5-07→0
V7AZ	V1000										
n157→0	H5-07→1										
n157→1	H5-07→0										
Motor 2 maximum voltage	158	200.0 V	E3-05	200.0 V							
Motor 2 mid output frequency voltage	159	12.0 V	E3-08	16.0 V							
Motor 2 minimum output frequency voltage	160	12.0 V	E3-10	9.0 V							
Motor 2 rated current	161	n210 dep.	E4-01	o2-04 dep.							
Motor 2 rated slip	162	n210 dep.	E4-02	o2-04 dep.							
PID output gain	163	1.0	b5-10	1.0							
PID feedback value selection	164	0	H3-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n164→0, 3</td> <td>Term. A1: H3-01→0 or 1 and H3-02→B Term. A2: H3-09→0 or 1 and H3-10→B</td> </tr> </tbody> </table>	V7AZ	V1000	n164→0, 3	Term. A1: H3-01→0 or 1 and H3-02→B Term. A2: H3-09→0 or 1 and H3-10→B		
			V7AZ	V1000							
			n164→0, 3	Term. A1: H3-01→0 or 1 and H3-02→B Term. A2: H3-09→0 or 1 and H3-10→B							
			H3-02	0	<table border="1"> <tbody> <tr> <td>n164→1, 4</td> <td>Term. A2: H3-09→2 and H3-10→B</td> </tr> <tr> <td>n164→2</td> <td>Term. A2: H3-09→3 and H3-10→B</td> </tr> </tbody> </table>	n164→1, 4	Term. A2: H3-09→2 and H3-10→B	n164→2	Term. A2: H3-09→3 and H3-10→B		
			n164→1, 4	Term. A2: H3-09→2 and H3-10→B							
			n164→2	Term. A2: H3-09→3 and H3-10→B							
H3-09	2	<table border="1"> <tbody> <tr> <td>n164→5</td> <td>H6-01 = 1</td> </tr> </tbody> </table>	n164→5	H6-01 = 1							
n164→5	H6-01 = 1										
H3-10	0	Terminal A1 or A2 can be used for PID feedback. When using terminal A2 always check the position of DIP switch S1!									
H6-01	0										
Braking resistor over heat protection (ERF type)	165	0	L8-01	0	<table border="1"> <thead> <tr> <th>V7AZ</th> <th>V1000</th> </tr> </thead> <tbody> <tr> <td>n165→0</td> <td>L8-01→0</td> </tr> <tr> <td>n165→1</td> <td>L8-01→1</td> </tr> </tbody> </table>	V7AZ	V1000	n165→0	L8-01→0	n165→1	L8-01→1
V7AZ	V1000										
n165→0	L8-01→0										
n165→1	L8-01→1										
Input open phase detection level	166	0%	-	-	The input phase loss detection level and time cannot be set in V1000. The phase loss detection can be enabled/disabled by setting L8-05.						
Input open phase detection time	167	0.0 s									
Output open phase detection level	168	0%	-	-	The output phase loss detection level and time cannot be set in V1000. The phase loss detection can be enabled/disabled by setting L8-07.						
Output open phase detection time	169	0.0 s									
Memobus Enter command selection	170	0	-	-	V1000 accepts Enter commands at any time.						
Frequency reference bias upper limit (up/down2)	171	0.0%	d4-08	0.0%							
Frequency reference bias lower limit (up/down2)	172	0.0%	d4-09	0.0%							

Drive Function/ Parameter	V7AZ		V1000		Comments	
	Parameter No.	Initial Value	Parameter No.	Initial Value		
DC braking P-gain	173	83 (0.083)	-	-	No need to set up in V1000	
DC braking integral time	174	25 (100 ms)	-	-	No need to set up in V1000	
Low speed carrier frequency reduction	175	0	L8-38	0	V7AZ	V1000
					n175→0	L8-38→0
					n175→1	L8-38→1
COPY function selection	176	rdy	-	-	Possible with option.	
READ prohibit selection	177	0	-	-		
Fault History	178	-	U2/U3-xx	-	In the V1000 the last fault can be traced in the U2-xx monitors. The fault history is displayed in the U3-xx monitors.	
Software Version	179	-	U1-25/26	-		

V7AZ and V1000 differences in rated power, current and carrier frequency

Voltage class	Max. Motor power (kW)	V7 type V7AZ****	V1000 type VZA****	V7AZ			V1000		
				Output power (kVA)	Output current (A)	Carrier frequency (kHz)	Output power (kVA)	Output current (A)	Carrier frequency (kHz)
Single phase 200V	0.1	B0P1	B0P1	0.3	0.8	10	0.3	0.8	10
	0.2	B0P2	B0P2	0.6	1.6		0.6	1.6	
	0.4	B0P4	B0P4	1.1	3.0		1.1	3.0	
	0.75	B0P7	B0P7	1.9	5.0		1.9	5.0	
	1.5	B1P5	B1P5	3.0	8.0	7.5	3.0	8.0	8
	2.2	B2P2	B2P2	4.2	11.0		4.2	11.0	
	4.0	B4P0	B4P0	6.7	17.5		6.7	17.5	
3 phase 200V	0.1	20P1	20P1	0.3	0.8	10	0.3	0.8	10
	0.2	20P2	20P2	0.6	1.6		0.6	1.6	
	0.4	20P4	20P4	1.1	3.0		1.1	3.0	
	0.75	20P7	20P7	1.9	5.0		1.9	5.0	
	1.5	21P5	21P5	3.0	8.0	7.5	3.0	8.0	8
	2.2	22P2	22P2	4.2	11.0		4.2	11.0	
	4.0	24P0	24P0	6.7	17.5		6.7	17.5	
	5.5	25P5	25P5	9.5	25.0		9.5	25.0	
7.5	27P5	27P5	13.0	33.0		13.0	33.0		
3 phase 400V	0.2	40P2	40P2	0.9	1.2	7.5	0.9	1.2	8
	0.4	40P4	40P4	1.4	1.8		1.4	1.8	
	0.75	40P7	40P7	2.6	3.4		2.6	3.4	
	1.5	41P5	41P5	3.7	4.8		3.7	4.8	
	2.2	42P2	42P2	4.2	5.5		4.2	5.5	
	3.0	43P0	43P0	5.5	7.2		5.5	7.2	
	4.0	44P0	44P0	6.6	8.6		7.0	9.2	
	5.5	45P5	45P5	11.0	14.8		11.0	14.8	
	7.5	47P5	47P5	14.0	18.0		14.0	18.0	

Revision History

Rev. No.	Date	Modification
-	31. March 2007	First Edition