

Addendum

ALTIVAR® 66 Addendum to VD0C06S304E ATV66 Repair Parts

Retain for future use.

INTRODUCTION

This Addendum replaces Appendix A of instruction bulletin VD0C06S304E, *ALTIVAR 66® Adjustable Speed Drive Controllers for Asynchronous Motors User's Manual, Constant and Variable Torque: 1 to 400 hp, 460 V and 1 to 50 hp, 230 V, Receiving, Installation, and Start-up*. This addendum contains revised repair parts information.

Replacement of repair parts requires the use of special tools and installation procedures not included with the repair parts kits. Before replacing any repair part, consult the *ALTIVAR 66 Drive Controller Service and Troubleshooting Manual*, bulletin number VD0C06S701 (1–75 hp, 100 hp VT) or VD0C06S702 (100–350 hp, 125–400 hp VT). These manuals can be ordered from your local Square D distributor. Repair parts must be replaced only by qualified electrical personnel familiar with the service and troubleshooting manual.

SELECTING REPAIR PARTS FOR ATV66C10N4 TO ATV66C19N4 DRIVE CONTROLLERS

When ordering repair parts for the ATV66C10N4 to ATV66C19N4 drive controllers, check the drive controller serial number and follow these guidelines. Refer to pages 3–5 of bulletin VD0C06S304E for assistance in finding the drive controller serial number.

- If the serial number has a "1" as the seventh digit, select repair parts from the repair parts list beginning on page 2 of this addendum. All drive controllers shipped on or after June 1, 1998 have a "1" as the seventh digit of the serial number. See Figure 2 on page 2 for illustrations of these controllers.
- If the serial number does **not** have a "1" as the seventh digit, consult bulletin VD0C06S702 for repair parts. These are drive controllers that shipped on or before May 31, 1998. They are illustrated in Figure 1.

Use the repair parts list beginning on page 2 of this addendum for all other drive controller models (ATV66U41N4 to ATV66D79N4, ATV66U41M2 to ATV66D46M2, and ATV66C23N4 to ATV66C31N4).

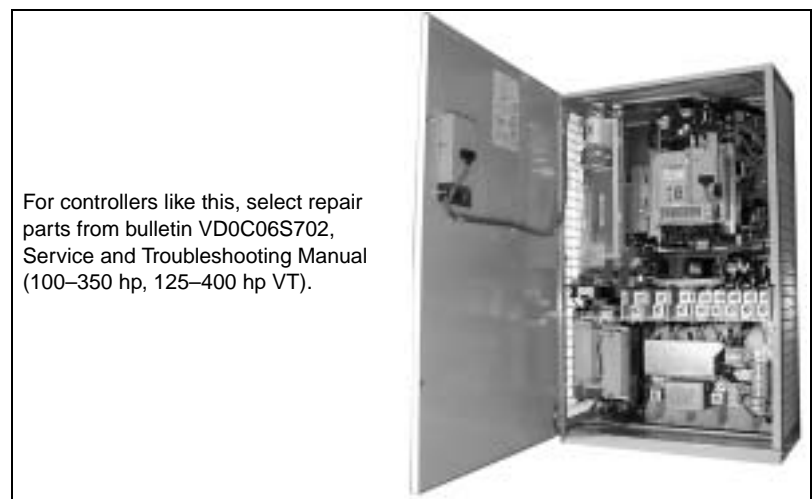


Figure 1: ATV66C10N4–C19N4: Shipped On or Before May 31, 1998

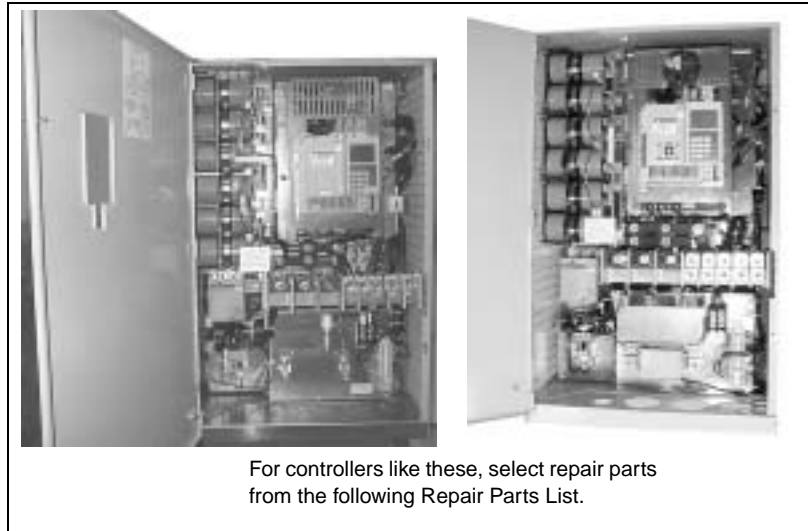


Figure 2: ATV66C10N4–C19N4: Shipped On or After June 1, 1998

Repair Parts List

Description	Drive Controller	Part No.	Note
ALTIVAR 66 Adjustable Speed Drive Controllers Service and Troubleshooting Manual	ATV66 1–75 hp, 100 hp VT	VD0C06S701	
	ATV66 100 hp CT, 125–400 hp	VD0C06S702	
Control Kit — 460 V	ATV66U41N4 to D79N4 ATV66C10N4 to C31N4	VX4A66CK1 VX4A66CK2	
Control Kit — 208/230 V	ATV66U41M2 to D46M2 (except ATV66D23M2S264U)	VX4A66CK1	Matched keypad display and control basket with latest firmware
	ATV66D23M2S264U	VX4A66CK1S260	
Keypad Display Refer to the section “Identifying the Firmware Version” in Chapter 4 of bulletin VD0C06S304E and determine the firmware version of your drive controller.			
For drive controllers with firmware level 3.0 and later	ATV66 all sizes	VW3A66206U	
For drive controllers with firmware version earlier than 3.0	Order the control kit listed above that is appropriate for your drive controller.		
Removable Control Terminal Strips	ATV66 all sizes	VZ3N006	J1, J12, and J13 on control basket

Repair Parts List (Continued)

Description	Drive Controller	Part No.	Note
Power Board — 460 V	ATV66U41N4	VX5A66U41N4	Includes IGBT block, rectifier diode, heatsink, and fan
	ATV66U54N4	VX5A66U54N4	
	ATV66U72N4	VX5A66U72N4	
	ATV66U90N4	VX5A66U90N4	
	ATV66D12N4	VX5A66D12N4	
	ATV66D16N4	VX5A66D16N4	
	ATV66D23N4	VX5A66D23N4	Power board only
	ATV66D33N4	VX5A66D33N4	
	ATV66D46N4	VX5A66D46N4	
	ATV66D54N4	VX5A66D54N4	
	ATV66D64N4	VX5A66D64N4	
	ATV66D79N4	VX5A66D79N4	
	ATV66C10N4	VX5A661C10N4	
	ATV66C13N4	VX5A661C13N4	
	ATV66C15N4	VX5A661C15N4	
	ATV66C19N4	VX5A661C19N4	
	ATV66C23N4	VX5A661C23N4	
	ATV66C28N4	VX5A661C28N4	
ATV66C31N4	VX5A661C31N4		
Power Board — 208/230 V	ATV66U41M2	VX5A662U41M2	Includes IGBT block and rectifier diode
	ATV66U72M2	VX5A662U72M2	
	ATV66U90M2	VX5A662U90M2	
	ATV66D12M2	VX5A66D12M2	Power board only
	ATV66D16M2	VX5A66D16M2	
Power Board and Gate Driver Board — 208/230 V	ATV66D23M2	VX5A66D234M2	Matched set
	ATV66D33M2	VX5A66D335M2	
	ATV66D46M2	VX5A66D466M2	
Gate Driver Board — 460 V	ATV66D16N4	VX5A66103	Gate driver board only
	ATV66D23N4	VX5A66104	
	ATV66D33N4	VX5A66105	
	ATV66D46N4	VX5A66106	
	ATV66D54N4	VX5A66107	
	ATV66D64N4	VX5A66108	
	ATV66D79N4	VX5A66109	
Gate Driver Board — 208/230 V	ATV66D12M2	VX5A66112	
	ATV66D16M2	VX5A66113	
Inverter IGBT — 460 V [1] For units with a serial number starting with "6W", or for units with a serial number starting with "86" and a date code of 0216 or earlier. [2] For units with a serial number starting with "86" and a date code of 0217 or later. Refer to pages 3–5 of bulletin VD0C06S304E for assistance in finding the serial number and date code.	ATV66D16N4	VZ3IM2050M1201	1 dual IGBT block
	ATV66D23N4	VZ3IM2075M1201	
	ATV66D33N4	VZ3IM2100M1201	
	ATV66D46N4, D54N4	VZ3IM2150M1201	
	ATV66D64N4	VZ3IM2200M1201	
	ATV66D79N4 [1]	VZ3IM2300M1201	
	ATV66D79N4 [2]	VZ3IM2200M1202	
	ATV66C10N4	VZ3IM2300M1202	
	ATV66C13N4 to C19N4	VZ3IM2400M1202	
	ATV66C23N4, C28N4	VZ3IM1400M1207	
ATV66C31N4	VZ3IM1500M1207	2 IGBT blocks, 2 snubber boards, 2 gate driver boards, 1 clamp module	
			4 IGBT blocks, 2 snubber boards, 2 gate driver boards

Repair Parts List (Continued)

Description	Drive Controller	Part No.	Note
Inverter IGBT — 208/230 V	ATV66D12M2	VZ3IM2075M0601	1 dual IGBT block
	ATV66D16M2	VZ3IM2100M0601	
	ATV66D23M2	VZ3IM2150M0601	
	ATV66D33M2	VZ3IM2200M0601	
	ATV66D46M2	VZ3IM2300M0601	
Inverter IGBT Clamp Capacitor	ATV66C23N4 to C31N4	VY1ADC610	1 capacitor
Dynamic Braking IGBT — 460 V	ATV66D16N4, D23N4	VZ3IM1025M1001	1 IGBT Block
	ATV66D33N4, D46N4	VZ3IM2050M1201	
	ATV66D54N4	VZ3IM2100M1201	
	ATV66D64N4, D79N4	VZ3IM2150M1201	1 IGBT block, 1 diode block, 1 snubber board, 1 gate driver board
	ATV66C10N4 to C19N4	VZ3IM1300M1202	
	ATV66C23N4	VZ3IM1400M1208	
Dynamic Braking IGBT — 208/230 V	ATV66C28N4, C31N4	VZ3IM1300M1208	2 IGBT blocks, 2 diode blocks, 2 snubber boards, 1 gate driver board
	ATV66D12M2, D16M2	VZ3IM1060M0601	1 IGBT block
	ATV66D23M2	VZ3IM2075M0601	
	ATV66D33M2	VZ3IM2100M0601	
ATV66D46M2	VZ3IM2150M0601		
Dynamic Braking Clamp Capacitor	ATV66C10N4 to C19N4	VY1ADC616	1 capacitor
	ATV66C23N4 to C31N4	VY1ADC614	
Line Filter Board — 460 V	ATV66D16N4, D23N4	VX4A66103	Board only
	ATV66D33N4, D46N4	VX4A66104	
	ATV66D54N4 to D79N4	VX4A66105	
	ATV66C10N4 to C31N4	VX4A66106	Assembly with board and capacitors
Line Filter Board — 208/230 V	ATV66D12M2, D16M2	VX4A66103	Board only
	ATV66D23M2, D33M2	VX4A66104	
	ATV66D46M2	VX4A66105	
Line Rectifier Diode — 460 V	ATV66D16N4, D23N4	VZ3DM6075M1601	6-pack diode block
	ATV66D33N4	VZ3DM2080M1606	1 dual diode block
	ATV66D46N4	VZ3DM2100M1601	
	ATV66D54N4 to D79N4	VZ3DM2160M1606	
	ATV66C10N4, C13N4	VZ3DM2170M1602	
	ATV66C15N4	VZ3DM2260M1602	
	ATV66C19N4	VZ3DM2350M1602	
	ATV66C23N4 to C31N4	VZ3DM2600M1602	
Line Rectifier Diode — 208/230 V	ATV66D12M2, D16M2	VZ3DM6075M1601	
	ATV66D23M2	VZ3DM2080M1606	1 dual diode block
	ATV66D33M2	VZ3DM2100M1601	
	ATV66D46M2	VZ3DM2160M1606	
DC Bus Capacitor—460 V	ATV66D16N4, D23N4	VY1ADC152V450	
	ATV66D33N4, D46N4	VY1ADC472V450	Assembly with capacitors and stirring fan
	ATV66D54N4	VY1ADC605	
	ATV66D64N4, D79N4	VY1ADC606	
	ATV66C10N4 to C19N4	VY1ADC615	
	ATV66C23N4 to C31N4	VY1ADC608	
DC Bus Capacitor—208/230 V	ATV66D12M2, D16M2	VY1ADC152V450	
	ATV66D23M2, D33M2	VY1ADC472V450	Assembly with capacitors and stirring fan
	ATV66D46M2	VY1ADC605	

Repair Parts List (Continued)

Description	Drive Controller	Part No.	Note
DC Bus Capacitor Bank Plexiglass Shield	ATV66C10N4 to C19N4	VY1ADV611	Shield with mounting screws
Discharge Resistor — 460 V	ATV66D33N4 to D79N4	VZ3R5K0W040	1 resistor
	ATV66C10N4 to C19N4	VZ3R2K5W600	2 resistors
	ATV66C23N4 to C31N4	VZ3R1K2W480	
Discharge Resistor — 208/230 V	ATV66D23M2 to D46M2	VZ3R5K0W040	
Precharge Resistor — 460 V	ATV66D16N4, D23N4	VZ3R033W009	1 resistor
	ATV66D33N4, D46N4	VZ3R010W025	
	ATV66D54N4 to D79N4	VZ3R010W481	
	ATV66C10N4 to C31N4	VZ3R010W270	2 resistors
Precharge Resistor — 208/230 V	ATV66D12M2, D16M2	VZ3R033J710	
	ATV66D23M2, D33M2	VZ3R010W025	1 resistor
	ATV66D46M2	VZ3R010W481	
Precharge Contactor — 460 V	ATV66D16N4, D23N4	LP4D1801BW3	
	ATV66D33N4	LC1D1801P7	
	ATV66D46N4	LC1D2501P7	
	ATV66D54N4, D64N4	LC1D4011P7	
	ATV66D79N4	LC1D6511P7	
	ATV66C10N4, C13N4	VY1A661C1010	1 contactor
	ATV66C15N4, C19N4	VY1A661C1510	
Precharge Contactor — 208/230 V	ATV66C23N4 to C31N4	VY1A661C2310	
	ATV66D12M2, D16M2	LP4D2500BW3	
	ATV66D23M2	LC1D3201P7	
	ATV66D33M2	LC1D5011P7	
Precharge Contactor Auxiliary Contact Block	ATV66C10N4 to C31N4	LA1DN04	1 contact block
Precharge Circuit Protector	ATV66C10N4 to C31N4	GV2M10	
Heatsink Fan — 460 V	ATV66U41N4, U54N4	VZ3V661	
	ATV66U72N4	VZ3V662	Fan(s) and mounting bracket
	ATV66U90N4, D12N4	VZ3V663	
	ATV66D16N4, D23N4	VZ3V664	
	ATV66D33N4 to D79N4	VZ3V665	1 fan
	ATV66C10N4 to C19N4	VZ3V670	Fan assembly and capacitor
	ATV66C23N4 to C31N4	VZ3V666	1 fan and capacitor
Heatsink Fan — 208/230 V	ATV66U41M2	VZ3V662	
	ATV66U72M2, U90M2	VZ3V663	Fan(s) and mounting bracket
	ATV66D12M2, D16M2	VZ3V664	
	ATV66D23M2 to D46M2	VZ3V665	1 fan
Stirring Fan — 460 V	ATV66D33N4 to D79N4	VZ3V6654	Power board fan
	ATV66D54N4 to D79N4	VZ3V6655	Capacitor bank fan
	ATV66C10N4 to C19N4	VZ3V671	Power board fan
	ATV66C23N4 to C31N4	VZ3V669	IGBT fan
Stirring Fan — 208/230 V	ATV66D23M2 to D46M2	VZ3V6654	Power board fan
	ATV66D46M2	VZ3V6655	Capacitor bank fan
Fan Failure Detection Assembly	ATV66C23N4 to C31N4	VY1ADR100	Resistor and temperature switch
Fan Failure Relay Assembly	ATV66C23N4 to C31N4	VZ3SA66012	Relay and retaining clip
Power Supply for Overtemperature Detection Circuit	ATV66C23N4 to C31N4	VY1A66200	Power supply only
Heatsink Temperature Sensor	ATV66C10N4 to C31N4	VZ3GN005	NTC thermistor and cable

Repair Parts List (Continued)

Description	Drive Controller	Part No.	Note
Temperature Switch	ATV66C10N4 to C19N4	VZ3G007	1 switch—mounted on fuse bar
	ATV66C10N4 to C19N4	VZ3G008	2 switches—mounted on heatsink and motor current sensor
	ATV66C23N4 to C31N4	VZ3G004	1 68 °C switch and 1 85 °C switch, heatsink mounted
Motor Current Sensor — 460 V	ATV66D33N4, D46N4	VY1A66104	2 sensors
	ATV66D54N4 to D79N4	VY1A66105	
	ATV66C10N4, C13N4	VY1A66106	1 sensor
	ATV66C15N4, C19N4	VY1A66107	
	ATV66C23N4 to C31N4	VY1A66108	
Motor Current Sensor — 208/230 V	ATV66D23M2	VY1A66104	2 sensors
	ATV66D33M2, D46M2	VY1A66105	
Ground Fault Sensor—460 V	ATV66C10N4 to C19N4	VY1A66109	1 sensor
	ATV66C23N4 to C31N4	VY1A66110	
Control Power Transformer — 460 V	ATV66D33N4 to D79N4	VY1ADA604	Transformer only
	ATV66C10N4 to C19N4	VY1ADA606	
	ATV66C23N4 to C31N4	VY1ADA607	
Control Power Transformer — 230 V	ATV66D23M2 to D46M2	VY1ADA614	
Control Power Fuses	ATV66C10N4 to C31N4	DF3CF00501	2 fuses, F5 and F6
DC Bus Fuse	ATV66C10N4, C13N4	VY1ADF250V700	1 fuse
	ATV66C15N4, C19N4	VY1ADF350V700	
	ATV66C23N4 to C31N4	VY1ADF400V700	
AC Line Fuse	ATV66C23N4	VY1ALF700V700	1 fuse
	ATV66C28N4	VY1ALF800V700	
	ATV66C31N4	VY1ALF900V700	
Power Terminal Blocks — 460 V	ATV66D16N4, D23N4	VZ3N603	All output terminals and DIN rail for mounting
	ATV66D33N4, D46N4	VZ3N604	
	ATV66D54N4 to D79N4	VZ3N605	
Power Terminal Blocks — 208/230 V	ATV66D12M2, D16M2	VZ3N603	All output terminals and DIN rail for mounting
	ATV66D23M2, D33M2	VZ3N604	
	ATV66D46M2	VZ3N605	
Box Lug Power Terminal	ATV66C10N4 to C19N4	VZ3N008	Three terminals for replacing power or ground terminals ATV66C10N4–C13N4: L1, L2, L3, T1, T2, T3, +, –, GND ATV66C15N4–C19N4: T1, T2, T3, +, –, GND
Clam Shell Power Terminal	ATV66C15N4 to C19N4	VZ3N009	Three terminals for replacing power terminals L1, L2, L3
Power Terminal Plexiglass Shield	ATV66C10N4 to C19N4	VY1ADV612	
Dynamic Braking Flexible Bus	ATV66C23N4 to C31N4	VZ3N626	Connects capacitor bank to PA terminal and DB IGBT module
Flex Cables — 460 V (Control Board J3, J4, and J5)	ATV66U41N4 to D12N4	VZ3N601	3 flat ribbon cables
	ATV66D16N4, D23N4	VZ3N613	
	ATV66D33N4 to D79N4	VZ3N615	
	ATV66C10N4 to C31N4	VZ3N616	
Flex Cables — 208/230 V (Control Board J3, J4, and J5)	ATV66U41M2 to U90M2	VZ3N601	3 flat ribbon cables
	ATV66D12M2, D16M2	VZ3N613	
	ATV66D23M2 to D46M2	VZ3N615	

Repair Parts List (Continued)

Description	Drive Controller	Part No.	Note
Internal Hardware Kit — 460 V	ATV66U41N4 to U72N4	VY1ADV601	Specialty hardware, mounting posts, etc.
	ATV66U90N4, D12N4	VY1ADV602	
	ATV66D16N4, D23N4	VY1ADV603	
	ATV66D33N4, D46N4	VY1ADV604	
	ATV66D54N4 to D79N4	VY1ADV605	
	ATV66C10N4 to C19N4	VY1ADV613	
	ATV66C23N4 to C31N4	VY1ADV614	
Internal Hardware Kit — 230 V	ATV66U41M2	VY1ADV601	
	ATV66U72M2, U90M2	VY1ADV602	
	ATV66D12M2, D16M2	VY1ADV603	
	ATV66D23M2, D33M2	VY1ADV604	
	ATV66D46M2	VY1ADV605	
Packaging Kits — 208/230/460 V (Order this kit if the control basket is not mounted to a white metallic ground plane within the drive controller)	ATV66U41N4 to U72N4	VY1A66101	All plastic sides, covers, and front door
	ATV66U90N4, D12N4	VY1A66102	
	ATV66D16N4, D23N4	VY1A66103	
	ATV66U41M2	VY1A66101	
	ATV66U72M2, U90M2	VY1A66102	
ATV66D12M2, D16M2	VY1A66103		
Packaging Kits — 208/230/460 V (Order this kit if the control basket is mounted to a white metallic ground plane within the drive controller)	ATV66U41N4 to U72N4	VY1A66111	
	ATV66U90N4, D12N4	VY1A66112	
	ATV66D16N4, D23N4	VY1A66113	
	ATV66U41M2	VY1A66111	
	ATV66U72M2, U90M2	VY1A66112	
Clip Pliers (Tool for removing voltage regulator heatsink clips)	ATV66U41N4 to D23N4	VY1ADV608	Use when replacing power board, all IGBTs, filter board, precharge components, bus capacitors, and line rectifier diodes.
	ATV66U41M2 to D16M2		

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