



**131F0400**

**FC-301P1K1T4Z20H3UXXXXXSCXXXA0BXCXXXXDX**

Frequency converter  
 FC-301P1K1T4Z20H3UXXXXXSCXXXA0BXCXXXXDX  
 VLT® AutomationDrive FC-301  
 (P1K1) 1.1 KW / 1.5 HP,  
 Three phase, 380 - 480 VAC, IP20 / Chassis A1 Frame  
 (H3) RFI Class A1/B (C1)  
 Brake chopper + Safe stop  
 No Loc. Cont. Panel  
 Not coated PCB, No Mains Option  
 Latest release std. SW.  
 Frame: A1  
 PROFIBUS DP MCA 101, No B Option  
 No C1 option, No D option

Other options according to Model code

**Model code:** FC-301P1K1T4Z20H3UXXXXXSCXXXA0BXCXXXXDX

The VLT® AutomationDrive represents a single drive concept that controls the entire range of operations from ordinary to servo like applications on any machine or production line.

**View Efficiency Data**

**PRODUCT DETAILS**

<b>Gross weight</b>		3.586 Kilogram
<b>Net weight</b>		2.69 Kilogram
<b>Volume</b>		21.569 Liter
<b>EAN</b>		5702427396807
<b>Product View (Switch)</b>	GLBL	Global (Standard)
<b>Product Group</b>	FC-	VLT® AutomationDrive FC-
<b>Series</b>	301	301
<b>Power Rating</b>	P1K1	(P1K1) 1.1 KW / 1.5 HP
<b>Phase</b>	T	Three phase
<b>Mains Voltage</b>	4	380 - 480 VAC
<b>Enclosure</b>	Z20	IP20 / Chassis A1 Frame
<b>RFI Filter</b>	H3	(H3) RFI Class A1/B (C1)
<b>Brake - Safe Stop</b>	U	Brake chopper + Safe stop
<b>LCP</b>	X	No Loc. Cont. Panel
<b>Coating PCB</b>	X	Not coated PCB
<b>Mains Option</b>	X	No Mains Option
<b>Adaptation A</b>	X	Standard Cable Entries
<b>Adaptation B</b>	X	No adaptation
<b>Software Release</b>	SXXX	Latest release std. SW.
<b>Software Language Pack</b>	X	Standard Language Pack
<b>A Option</b>	A0	PROFIBUS DP MCA 101
<b>B Option</b>	BX	No B Option
<b>C0 Option MCO</b>	CX	No C0 option
<b>C1 Option</b>	X	No C1 option

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## Product Detail | FC-301P1K1T4Z20H3UXXXXX0BXCXXXXX

## PRODUCT DETAILS

<b>C Option Software</b>	XX	No software option
<b>D Option</b>	DX	No D option
<b>Frame Size</b>	A1	A1
<b>Typecode Part 1</b>		FC-301P1K1T4Z20H3UXX
<b>Typecode Part 2</b>		XXXXXXXA0BXCXXXXX
<b>Product Catalog</b>	NO_VIEW	NO VIEW
<b>Product View (Default)</b>		Global (Standard)
<b>Power 160% (HO) [KW]</b>	1.1	1.1
<b>Height [mm]</b>	200,0	200,0
<b>Width w/ no C options [mm]</b>	75,0	75,0
<b>Depth [mm]</b>	207,0	207,0
<b>Depth with Option A/B [mm]</b>	222,0	222,0
<b>kVA</b>	2.08	2.08
<b>Power Loss HO [W]</b>	58	58
<b>Power Loss HO [W]</b>	58	58
<b>Continuous Current (HO) [A]</b>	3	3
<b>Intermittent Current (HO) [A]</b>	4.8	4.8
<b>Continuous Current (HO) [A]</b>	2.7	2.7
<b>Intermittent Current (HO) [A]</b>	4.32	4.32
<b>Calculated Gross Weight [kg]</b>		3.586
<b>Calculated Net Weight [kg]</b>		2.69
<b>ECCN EU</b>	Y901	Y901
<b>ECCN US</b>	3A999.a	3A999.a
<b>Vendor</b>	ERR01	Cannot Determine Vendor
<b>Recommended Factory</b>	ERR01	Cannot Determine Vendor
<b>Modelcode01</b>		FC-301P1K1T4Z20H3UXX
<b>Modelcode02</b>		XXXXXXXA0BXCXXXXX
<b>Recommended Plant</b>	ERR01	ERR01

For Documents, Software, Visuals and more information, please use this link to visit the product page on Danfoss Product Store [🔗](#)

## Accessories

Image  
coming  
soon

**130B3290** [🔗](#)**VLT® Safe option MCB 151, coated**

VLT® Safe option MCB 151, painted for HTL feedback, can be used up to PL d or SIL 2

For more information, please use this link to visit the product page on Danfoss Product Store [🔗](#)

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Accessories



**130B3280** [🔗](#)

**VLT® Safe option MCB 150, coated**

Safety modules enable machines to interact intelligently with operators to increase safety, reduce system costs, improve flexibility and increase productivity.

VLT® MCB 15x Safe options provide an intelligent, user-friendly solution to meet the IEC 61800-5-2 functional safety standard and helps to reduce cabling.

The new safety module is certified according to ISO 13849-1 PL d Category 3 and SIL 2 according to IEC 61508.



**130B7635** [🔗](#)

**VLT® Lift Controller MCO 361**

VLT® Motion Control MCO 305 with special software for lift application



**130B7145** [🔗](#)

**VLT® SALT Controller MCO 360**



**130B9860** [🔗](#)

**VLT® Safety Option MCB152, coated**

Safety modules enable machines to interact intelligently with operators to increase safety, reduce system costs, improve flexibility and increase productivity. VLT® Safety Option MCB152 provides an intelligent, user-friendly solution to meet the IEC 61800-5-2 functional safety standard and helps to reduce cabling. MCB152 enables activation of the Safe Torque Off (STO) irrespective of where a hazard occurs. The new safety module is certified according to ISO 13849-1 PL d Category 3 and SIL 2 according to EN IEC 61508. The combination of VLT® Safety Option MCB152, PROFINET fieldbus option MCA120, and the control card of the VLT® AutomationDrive constitutes a PROFIsafe device.

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Accessories



**130B1234**

**VLT® Motion Control MCO 305, coated**

Integrated and programmable motion controller for VLT® AutomationDrive FC 301 and FC 302

- Adds additional functionality and flexibility as it is a freely programmable module
- Optimized for all types of positioning and synchronization applications
- Make your own program specially adapted to your application

Contains:

- synchronization (electronic shaft), positioning and electronic cam control
- 2 inputs support both stepwise and absolute encoders
- 1 encoder output (virtual master function)
- 10 digital inputs
- 8 digital outputs
- Sends and receives data via fieldbus interface (requires fieldbus option)
- PC software for programming and commissioning

Remember to order the Mounting kit if the above MCO option is required retrofitted.

130B7530 - Mounting kit for enclosures A2 and A3

130B7531 - Mounting kit for MCO Option, together with MCB 113, in enclosures A2 and A3

130B1413 - Mounting kit for enclosure B3

130B1414 - Mounting kit for MCO Option, together with MCB 113, in enclosure B3

130B7532 - Mounting kit for enclosure A5

130B7533 - Mounting kit for all enclosures B, C, D, E and F (B3 excepted)

Danfoss MCO options are not sold without prior advice.

Danfoss can offer help with programming / setting up MCO options.

Contact Danfoss for advice and prices.

Product group: R



**130B1227**

**VLT® Resolver Input MCB 103, coated**

Resolver extension for FC 300. Enables the connection of the following Resolver types: Input voltage: 4..8 Vrms Input frequency: 2.5..15 kHz Number of resolver poles: 2 or 4



**130B1264**

**VLT® Extended Relay Card MCB 113, ctd**

Adds 7 digital inputs and 2 analog outputs for increased flexibility. 4 SPDT relays. Meets NAMUR recommendations. Galvanic isolation capability.

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**Accessories**


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**130B1253** [🔗](#)**VLT® Position Controller MCO 351, ctd**

Extends the functional characteristics of the frequency converter in positioning applications

- Direct positioning via fieldbus, relative positioning, absolute positioning and touch probe positioning
  - End stop handling (software and hardware)
  - Mechanical brake handling (programmable hold delay)
- Error handling

- Jog speed / manual operation
- None for programming, as it is pre-programmed

Remember to order the Mounting kit if the above MCO option is required retrofitted.

130B7530 - Mounting kit for enclosures A2 and A3

130B7531 - Mounting kit for MCO Option, together with MCB 113, in enclosures A2 and A3

130B1413 - Mounting kit for enclosure B3

130B1414 - Mounting kit for MCO Option, together with MCB 113, in enclosure B3

130B7532 - Mounting kit for enclosure A5

130B7533 - Mounting kit for all enclosures B, C, D, E and F (B3 excepted)

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Product group: R

**130B1252** [🔗](#)**VLT® Synchronizing Ctrl. MCO 350, ctd**

MCO 350 - synchronous controller Based on the MCO 305 prefabricated controller for Synchronization tasks. The adjustment takes place through parameter settings. Specific Programming skills are not required.

- 2 encoder inputs, both for incremental as well as absolute encoder
- 1 encoder output (virtual master function)
- 10 additional digital inputs
- 8 additional digital outputs
- fieldbus Communication (requires fieldbus card) with reinforced coating

**130B1172** [🔗](#)**VLT® Sensor Input Card MCB 114, unctd**

Protects the motor from being overheated by monitoring the temperature of bearings and windings in the motor. Three self-detecting sensor inputs for 2 or 3 wire PT100/PT1000 sensors. One additional analog input 4–20 mA.

**130B1170** [🔗](#)**LCP Panel Mounting Kit**

The kit includes fasteners and gasket. No LCP and no cable included.

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Accessories



**130B1212** [🔗](#)

**VLT® General Purpose I/O MCB 101, ctd**

MCB 101 - Advanced I / O option Expands the number of freely programmable Control inputs and outputs around the following I / Os:

- 3 digital inputs opto-decoupled 0 - 24 V.
- 2 analog inputs 0 - 10 V.
- 2 digital outputs NPN / PNP switchable 24 V
- 1 analog output 0/4 - 20 mA with reinforced coating



**130B1210** [🔗](#)

**VLT® Relay Option MCB 105, coated**

Relay extension for FC 100 and FC 300.  
 Extension with 3 additional load relays (changeover contacts), easy to retrofit thanks to modular technology.  
 Painted version for harsh environments, easy to retrofit thanks to modular technology.  
 Max. Load 240V AC (resistive): 2 A  
 Max. Load 240V AC (Cos Phi 0.4): 0.2 A  
 Max. Load 24V DC (ohmic): 1 A  
 Max. Load 24V DC (inductive): 0.1 A



**130B1208** [🔗](#)

**1xMCB 107 24V DC coat w. mount. brackets**

Connect an external DC supply to keep the control section and any installed option alive during power failure. Enables full operation of the LCP (including the parameter setting) and all installed options without connection to mains.



**130B1203** [🔗](#)

**VLT® Encoder Input MCB 102, coated**

Offers the possibility to connect various types of incremental and absolute encoders. The connected encoder can be used for closed-loop speed control as well as closed-loop flux motor control.



**130B1387** [🔗](#)

**5xMCB107 24VDC no coat w.out mount brack**



**130B1164** [🔗](#)

**VLT® Extended Relay Card MCB 113**

Adds 7 digital inputs and 2 analog outputs for increased flexibility. 4 SPDT relays. Meets NAMUR recommendations. Galvanic isolation capability.

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## Accessories



### 130B0183 [🔗](#)

#### Adapter Plate, 395x90mm

With the adapter plate you can replace a VLT® 5/6/8000 by a FC drive without having to drill new holes for the FC drive. This makes it easy and fast to replace a VLT® 5/6/8000, and as there will be no drilling there will be no swarf harming the electric components.

The following VLT® 5/6/8000 can be mounted on the Adapter Plate 130B0183:

IP20 Book: 200-240Volt VLT5001-5003/VLT6002-6003, 380/500Volt VLT5001-5005, 380-460Volt VLT6002-6005



### 130B1134 [🔗](#)

#### VLT® Motion Control MCO 305, uncoated

Integrated and programmable motion controller for VLT® AutomationDrive FC 301 and FC 302

- Adds additional functionality and flexibility as it is a freely programmable module
- Optimized for all types of positioning and synchronization applications
- Make your own program specially adapted to your application

Contains:

- synchronization (electronic shaft), positioning and electronic cam control
- 2 inputs support both stepwise and absolute encoders
- 1 encoder output (virtual master function)

10 digital inputs

8 digital outputs

- Sends and receives data via fieldbus interface (requires fieldbus Option)
- PC software for programming and commissioning.

Remember to order the Mounting kit if the above MCO option is required retrofitted.

130B7530 - Mounting kit for enclosures A2 and A3

130B7531 - Mounting kit for MCO Option, together with MCB 113, in enclosures A2 and A3.

130B1413 - Mounting kit for enclosure B3

130B1414 - Mounting kit for MCO Option, together with MCB 113, in enclosure B3

130B7532 - Mounting kit for enclosure A5

130B7533 - Mounting kit for all enclosures B, C, D, E and F (B3 excepted)

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### 130B1127 [🔗](#)

#### VLT® Resolver Input MCB 103, uncoated

Enables connection of a resolver to provide speed feedback from the motor. Spring loaded connection.



### 130B1125 [🔗](#)

#### VLT® General Purpose I/O MCB 101, unctd

MCB 101 - Advanced I / O option Expands the number of freely programmable Control inputs and outputs around the following I / Os:

- 3 digital inputs opto-decoupled 0 - 24 V.
- 2 analog inputs 0 - 10 V.
- 2 digital outputs NPN / PNP switchable 24 V
- 1 analog output 0/4 - 20 mA

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Accessories



**130B1124** [🔗](#)

**VLT® Control Panel LCP 101, numeric**

Numerical control unit for FC 100 and FC 300. Allows access to all device parameters. Quick menu for brief commissioning. Manual / auto switchover and alarm acknowledgment.



**130B1121** [🔗](#)

**IP 21/Type 1 conversion kit, A1**



**130B1117** [🔗](#)

**LCP Mounting Kit, w/ no LCP**

The kit includes fasteners, 3m cable and gasket - There is no LCP included.



**130B1115** [🔗](#)

**VLT® Encoder Input MCB 102, uncoated**

Offers the possibility to connect various types of incremental and absolute encoders. The connected encoder can be used for closed-loop speed control as well as closed-loop flux motor control.



**130B1114** [🔗](#)

**LCP Mounting Kit w/ numerical LCP101, 3m**

The kit includes numerical LCP, fasteners, 3m cable and gasket.



**130B1113** [🔗](#)

**lcp panel kit/fc300 fg-lcp panel kit**

The kit includes graphical LCP, fasteners, 3m cable and gasket.



**130B1112** [🔗](#)

**Sub-D9 Adapter kit, A1, A2, A3**

SUB-D9 plug adapter for FC 100 and FC 300. Allows the use of SUB-D9 connectors at the Profibus DP interface.



**130B1110** [🔗](#)

**VLT® Relay Option MCB 105, uncoated**

Relay extension for FC 100 and FC 300. Extension with 3 additional load relays (changeover contacts), easy to retrofit thanks to modular technology.

Max. Load 240V AC (resistive): 2 A

Max. Load 240V AC (Cos Phi 0.4): 0.2 A

Max. Load 24V DC (ohmic): 1 A

Max. Load 24V DC (inductive): 0.1 A

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Accessories



**130B1153** [🔗](#)

**VLT® Position Controller MCO351, unctd**

Extends the functional characteristics of the frequency converter in positioning applications

- Direct positioning via fieldbus, relative positioning, absolute positioning and touch probe positioning

- End stop handling (software and hardware)

- Mechanical brake handling (programmable hold delay)

Error handling

- Jog speed / manual operation

- None for programming, as it is pre-programmed

Remember to order the Mounting kit if the above MCO option is required retrofitted.

130B7530 - Mounting kit for enclosures A2 and A3

130B7531 - Mounting kit for MCO Option, together with MCB 113, in enclosures A2 and A3

130B1413 - Mounting kit for enclosure B3

130B1414 - Mounting kit for MCO Option, together with MCB 113, in enclosure B3

130B7532 - Mounting kit for enclosure A5

130B7533 - Mounting kit for all enclosures B, C, D, E and F (B3 excepted)

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Product group: R



**130B1152** [🔗](#)

**VLT® Synchronizing Contr. MCO350, unctd**

Expands the functional properties of the VLT® AutomationDrive in synchronizing applications, and replaces traditional mechanical solutions. Speed synchronizing. Position (angle) synchronizing with or without marker correction. Online adjustable gear ratio. Online adjustable position (angle) offset. Encoder output with virtual master function for synchronization of multiple followers. Control via I/Os or fieldbus. Home function. Configuration as well as read-out of status and data via the Local Control Panel of the drive.



**130B1077** [🔗](#)

**Blindcover, w/ Danfoss logo, IP55/66**

LCP Blindcover IP66



**130B1071** [🔗](#)

**6 Pole Connector, FC series, 10 pcs**

6-pole spring cage connectors 10 pcs



**130B1070** [🔗](#)

**RS485 plug, FC series, 10 pcs**

10pcs RS485 connectors for FC-series.

Product group: R

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Accessories



**130B1108**

**VLT® 24V DC Supply MCB 107, uncoated**

Connect an external DC supply to keep the control section and any installed option alive during power failure. Enables full operation of the LCP (including the parameter setting) and all installed options without connection to mains.



**130B1107**

**VLT® Control Panel LCP 102**

Graphic operating unit LCP102 Illuminated graphic display with plain text. Supports all languages and characters. Quick menu for brief commissioning. Saving and copying parameter sets. Online help for each function



**130B1088**

**LCP Blindcover, w/ Danfoss logo, IP20/21**



**175Z0929**

**LCP Cable, 3m**

Cable for control panel (LCP), 3 meters Works with the following LCP:

- Alphanumeric control panel LCP3 - 175N0131
- VLT® LCP 102 Graphic Display - 130B1107
- VLT® LCP 101 Numeric Display - 130B1124
- VLT® LCP 102 Graphic display IP66 - 130B1078
- Product group: F1

Image coming soon

**175U0009**

**Mounting bracket Kit, 216 x 30 x 18mm**

Mounting angle for flatpack resistor 200W



**175N2584**

**VLT® EtherNet/IP Modbus TCP gateway**

Image coming soon

**134B5225**

**Remote LCP unit, 10m**

Remote mounting kit for LCP with cover for outdoor mounting with 10 m (33 ft) cable

Image coming soon

**134B5224**

**Remote LCP unit, 5m**

Remote mounting kit for LCP with cover for outdoor mounting with 5 m (16 ft) cable

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Accessories



**134B5223** [🔗](#)

**Remote LCP unit, 3m**

Remote mounting kit for LCP with cover for outdoor mounting with 3 m (10 ft) cable

Image coming soon

**134B1992** [🔗](#)

**Control Terminals w/ screw connections**



**130B1266** [🔗](#)

**VLT MCB 115 Programmable I/O, coated**

VLT® MCB 115 programmable I / O, coated



**134B6544** [🔗](#)

**Real Time Clock D slot option MCB117**

The VLT® Real-time clock option MCB 117 option provides advanced data- logging functionality to the following drives

VLT® HVAC Drive FC 102

VLT® Refrigeration Drive FC 103

VLT® Aqua Drive FC 202

VLT® Automation Drive FC 301/FC 302



**130B0295** [🔗](#)

**sparepart/terminals accessory bag**



**130B1021** [🔗](#)

**Accessory bag for frame size A1**

Image coming soon

**130B4847** [🔗](#)

**extension cable for lcp+communication**

Image coming soon

**134B6883** [🔗](#)

**VLT Progr. Contr. MCB 301, coated**

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