



### 131B0131 🗷

# FC-302P5K5T5E20H1XGCXXXSXXXXAXBXCXXXXDX

Frequency converter
FC-302P5K5T5E20H1XGCXXXSXXXXAXBXCXXXXDX
VLT\* AutomationDrive FC-302
(P5K5) 5.5 KW / 7.5 HP, Three phase

380 - 500 VAC, (E20) IP20 / Chassis

(H1) RFI Class A1/B (C1)

No brake chopper

Graphical Loc. Cont. Panel

Coated PCB, No Mains Option

Latest release std. SW.

No A Option, No B Option

No C1 option, No D option

Frame: A3

Other options according to Model code

# Model code: FC-302P5K5T5E20H1XGCXXXSXXXXAXBXCXXXXDX

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**

Gross weight		7.22 kg
Net weight		6.63 kg
Volume		22.04
EAN		5702427158382
Sales restriction control		
Matr grp for sales restriction	0001	No grouping
VLT® AUTOMATIONDRIVE FC 300	O SERIES	
Product View (Switch)	GLBL	Global (Standard)
Product Group	FC-	VLT® AutomationDrive FC-
Series	302	302
Power Rating	P5K5	(P5K5) 5.5 KW / 7.5 HP
Phase	T	Three phase
Mains Voltage	5	380 - 500 VAC
Enclosure	E20	(E20) IP20 / Chassis
RFI Filter	H1	(H1) RFI Class A1/B (C1)
Brake - Safe Stop	Х	No brake chopper
LCP	G	Graphical Loc. Cont. Panel
Coating PCB	С	Coated PCB
Mains Option	Х	No Mains Option
Adaptation A	Х	Standard Cable Entries
Adaptation B	Х	No adaptation
Software Release	SXXX	Latest release std. SW.
Software Language Pack	Х	Standard Language Pack
A Option	AX	No A Option
B Option	BX	No B Option



### **PRODUCT DETAILS**

C0 Option MCO	CX	No C0 option
C1 Option	X	No C1 option
C Option Software	XX	No software option
D Option	DX	No D option
Frame Size	A3	A3
Typecode Part 1		FC-302P5K5T5E20H1XGC
Typecode Part 2		XXXSXXXXAXBXCXXXXDX
Product Catalog	NO_VIEW	NO VIEW
Power 160% (HO) [KW]		5.5
Height [mm]		268,0
Width w/ no C options [mm]		130,0
Depth [mm]		205,0
Depth with Option A/B [mm]		220,0
kVA		9.01
Power Loss HO [W]		187
Power Loss HO [W]		187
Continuous Current (HO) [A]		13
Intermittent Current (HO) [A]		20.8
Continuous Current (HO) [A]		11
Intermittent Current (HO) [A]		17.6
Calculated Gross Weight [kg]		7.1
Calculated Net Weight [kg]		6.8
Material Gross Weight		7.22
Material Net Weight		6.63
Vendor	ERR01	Cannot Determine Vendor
Modelcode01		FC-302P5K5T5E20H1XGC
Modelcode02		XXXSXXXAXBXCXXXXDX

For Documents, Software, Visuals and more information, please use this link to visit the product page on Danfoss Product Store  $\ensuremath{\mathbb{Z}}$ 

# Accessories



# 130B3290 2

# 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



### 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.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





# 130B7635 🗷

### **VLT® Lift Controller MCO 361**

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



# 130B7531 🗷

### Mounting Kit f. C Option, 60mm, A2/A3

VLT® Mounting kit for enclosure sizes A2 and A3.

Must be used when retrofitting 1 pc. of the following MCO options,  $\,$ 

MCO 305 Programmable Motion Controller

MCO 350 Synchronizing Controller

MCO 351 Positioning controller

MCO 360 Salt Controller

MCO 361 Lift Controller

Product group: R



# 130B7530 🗷

# Mounting Kit f. C Option, 40mm, A2/A3

MCF 105 assembly kit A2 / A3 for C option



# 130B7401 🗷

NEMA 1 Conversion Kit, Top, 10 pcs, A3



# 130B7145 🗷

**VLT® SALT Controller MCO 360** 



# 130B6443 12

# **VLT® Safety Option MCB 140**

Extends the Safe Torque Off feature of VLT® drives with additional safety functions: Safe Stop 1 (SS1), Safely Limited Speed (SLS), Safe Maximum Speed (SMS) and Safe Speed Monitor (SSM).

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 130B9860 E

### 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.



### 130B5646 12

### VLT® EtherCAT MCA 124, coated

MCA 124 Ethercat option painted The VLT® EtherCat MCA 124 option enables Connection to EtherCat-based networks via the EtherCat protocol.

The option allows an EtherCat connection with full Speed and a connection to the frequency converter with a time interval of 4 ms in both Directions. This enables the MCA124 to be used in Networks from low-power applications to Servo applications.

-EoE EtherNet over EtherCat support

-HTTP (Hypertext Transfer Protocol) for diagnosis via integrated web server

-SMTP (Single Mail Transfer Protocol) for email notification

-TCP / IP for easy access to frequency converters Configuration data via MCT 10  $\,$ 



# 130B5645 12

Leakage Current Monitor Kit, A2, A3



### 130B1235 🗷

## VLT® PROFINET MCA 120, coated

MCA 120 PROFINET interface

With reinforced coating (class 3C3 / IEC 60721-3-3)

-Supports operation on PROFINET network with extensive

characteristics

- -DCP support for easy setting u. Communication parameters via the PLC
- -on Board web-Page with Drive Status
- -parameterization with the MCT10 software
- 2-port version, reduced external hardware

### For more information, please use this link to visit the product page on Danfoss Product Store 🗷





# 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  $\slash$  setting up MCO options.

 ${\bf Contact\ Danfoss\ for\ advice\ and\ prices.}$ 

Product group: R



### 130B1245 @

# VLT® PROFIBUS Converter MCA 113, ctd

Ensures easy and quick replacement of VLT® 3000 to VLT® Automation Drive

VLT® 3000 can then be replaced by VLT® AutomationDrive or

- the system Can be expanded without costly changes to the PLC program
- Flexible investment as it is easy to remove and replace option when upgrading

to another fieldbus

Product group: R1



# 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

### For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 130B1220 @

### VLT® Safe PLC I/O MCB 108, coated

Increases security and helps you meet requirement security levels

- VLT® AutomationDrive FC 302 has a safety input based on a single pole 24 V DC input
- Security in a cost-effective way

  Possibility of connection to two conductor safety system

  Possibility to interrupt on the plus or minus side without disturbing the sensor signal



# 130B1219 🗷

### VLT® EtherNet IP MCA 121, coated

EtherNet/IP extends commercial off-the-shelf Ethernet to the Common Industrial Protocol (CIP™) – the same upper-layer protocol and object model found in DeviceNet. Built-in high-performance switch enabling line-topology, and eliminating the need for external switches. Device Level Ring (DLR) topology for higher system availability. Based on CIP™, makes the reuse of PLC program possible when migrating from DeviceNet to EtherNet/IP. Built-in web server provides remote diagnosis and reading out of basic drive parameters. E-mail notification provides fast access to warnings or alarm information. Unicast and Multicast communication for improved network utilization. Certified by ODVA for fulfilment of the newest standard.



# 130B1264 <sup>12</sup>

## 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.





### 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)

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



## 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



# 130B1246 🗷

# VLT® PROFIBUS Converter MCA 114, ctd

A special version of the PROFIBUS options that emulates VLT® 5000 commands in the VLT® AutomationDrive. The VLT® 5000 can be replaced by the VLT® AutomationDrive, or an existing system can be expanded without costly change of the PLC program. For upgrade to a different fieldbus, the installed converter is easily removed and replaced with a new option. This secures the investment without losing flexibility. The option supports DPV1.

### For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 130B1196 @

### **VLT® Modbus TCP MCA 122**

MCA 122 Modbus TCP interface Complex compatibility tests make the perfect operation in Modbus TCP systems for sure.

- On Board web-Page with Drive Status
- Parameterization with MCT10 software
- 2 port version reduces effort for external hardware (switch, cables, etc.) and allows flexible bus topologies



## 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.



# 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

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 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.



### 130B1205 @

### VLT® CAN Open MCA 105, coated

CANopen interface for FC 300. Max. Baud rate 500 kBit / s. Support that DSP402 drive profile and PDO / SDO communication. Painted version for harsh environments. Easy to retrofit thanks to modular technology.



### 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.



### 130B1202 @

# VLT® DeviceNet MCA 104, coated

MCA 104 - DeviceNet interface Option for FC300 and FC100 for mounting on the control card. Painted version



# 130B1200 @

# VLT® Profibus DP V1 MCA 101, coated

Provides wide compatibility, a high level of availability, support for all major PLC vendors and compatibility with future versions. Fast, efficient communication, transparent installation, advanced diagnosis and parameterization and auto-configuration of process data using GSD-file. Acyclic parameterization using PROFIBUS DP-V1, ¬PROFIdrive or Danfoss FC profile state machines, PROFIBUS DP-V1, Master Class 1 and 2.



# 130B1387 🗷

5xMCB107 24VDC no coat w.out mount brack



## 130B1386 12

VLT® Profibus DP V1 MCA 101, ctd, 5pcs



# 130B1385 🗷

VLT® Profibus DP V1 MCA101, unctd 5pcs

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 130B1383 🗷

## acc. bag multipck 5 pc frame A2/3

Krones acc. bag multipack 5pcs for A2/3-frame.



# 130B1272 🗷

### VLT® Sensor Input Card MCB 114, coated

MCB 114 - PT100 / PT1000 option

For FC100-FC200 and FC302 (painted version)

Enables the evaluation of up to 3 PT 100 or 3 PT 1000 sensors

- Connection of 2 and 3 wire sensors
- Automatic detection of the sensor type
- Additional 4-20mA input



### 130B1296 12

### VLT® Modbus TCP MCA 122, coated

The first industrial Ethernet-based protocol for automation. Connects to Modbus-TCP-based networks. Able to handle connection interval down to 5 ms in both directions, positioning it among the fastest performing Modbus TCP devices in the market. For master redundancy it features hot swapping between two masters.



### 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.



# 130B1006 2

# VLT® Motion Ctrl Tool MCT 10>100 lic.

An interactive tool for quick and easy online/offline configuration of a VLT® drive or soft starter using a PC. Configure communication networks and back up relevant parameter settings. Control and configure systems simultaneously and monitor entire system more effectively for faster monitoring, diagnosis, troubleshooting (alarms/warnings) and better preventive maintenance.



# 130B1002 12

# VLT<sup>®</sup> Motion Ctrl Tool MCT 10,10 lic.

An interactive tool for quick and easy online/offline configuration of a VLT® drive or soft starter using a PC. Configure communication networks and back up relevant parameter settings. Control and configure systems simultaneously and monitor entire system more effectively for faster monitoring, diagnosis, troubleshooting (alarms/warnings) and better preventive maintenance.

### For more information, please use this link to visit the product page on Danfoss Product Store 🗷





# 130B1001 🗷

### VLT® Motion Ctrl Tool MCT 10,5 lic.

An interactive tool for quick and easy online/offline configuration of a VLT® drive or soft starter using a PC. Configure communication networks and back up relevant parameter settings. Control and configure systems simultaneously and monitor entire system more effectively for faster monitoring, diagnosis, troubleshooting (alarms/warnings) and better preventive maintenance.



### 130B1000 @

### **VLT® Motion Ctrl Tool MCT 10,1 lic.**

An interactive tool for quick and easy online/offline configuration of a VLT® drive or soft starter using a PC. Configure communication networks and back up relevant parameter settings. Control and configure systems simultaneously and monitor entire system more effectively for faster monitoring, diagnosis, troubleshooting (alarms/warnings) and better preventive maintenance.



### 130B0610 <sup>12</sup>

Krones acc. bag for frame size A2/A3



## 130B0185 🗷

# Adapter Plate, 395x220mm

With the adapter plate you can replace a VLT $^{\circ}$  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 $^{\circ}$  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 130B0185:

IP20 Compact: 200-240Volt VLT5001-5006, 380/500Volt VLT5001-5011

IP20/NM1: 200-240Volt VLT6002-6005, 380/460Volt VLT6002-6011, 380-480Volt VLT8006-8011, 550-600Volt

VLT 5001-5011, 525-690Volt VLT8002-8011



# 130B0184 🗷

# Adapter Plate, 395x130mm

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 130B0184:

IP20 Book: 200-240Volt VLT5004-5006/VLT6004-6005, 380/500Volt VLT5006-5011,

380-460Volt VLT6006-6011

### For more information, please use this link to visit the product page on Danfoss Product Store





### 130B1135 🗷

### **VLT® PROFINET MCA 120, UNCOATED**

MCA 120 PROFINET interface

- -Supports operation on PROFINET network with extensive properties
- -DCP support for easy setting u. Communication parameters via the PLC
- On Board web-Page with Drive Status
- Parameterization with the MCT10 software
- 2 port version, reduced external hardware



### 130B1134 2

## 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)

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



# 130B1133 🗷

# IP 21/Type 1 conversion kit, top, A3

This is only the top part of the kit - If you need a kit with both top and bottom please order 130B1123



## 130B1127 🗷

# VLT® Resolver Input MCB 103, uncoated

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

### For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 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



### 130B1124 2

### **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.



### 130B1123 <sup>12</sup>

# IP 21/Type 1 conversion kit, A3

Cover for housing size A3, type 1 MCF 101 NEMA1 / IP21



# 130B1120 @

### VLT® Safe PLC I/O MCB 108, uncoated

Connection converter for FC 300 with control input for a safe stop. Allows secure connection.

Output modules with diagnostic pulse (Cross-circuit monitoring).



## 130B1119 @

# VLT® EtherNet/IP MCA 121, uncoated

MCA 121 EtherNet / IP interface

- -Allows connection to EtherNet / IP based Automation systems via CIP (CommonInterface Protocol)
- -2 port design reduces external components
- -HTTP for diagnosis via built-in web server
- -SMTP, DHCP and FTP protocols
- -Prepared for parameterization with the MCT 10 software via TCP / IP  $\,$
- -Certified according to ODVA



# 130B1117 <sup>™</sup>

# 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.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗅





### 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.



### 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



# 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)

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



## 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.

### For more information, please use this link to visit the product page on Danfoss Product Store





### 130B1137 🗷

### VLT® PTC Thermistor Card MCB 112, ctd

MCB 112 PTC - thermistor relay MS220DA In connection with ATEX certified explosion-proof motors for full motor protection. Certified PTC sensors are the sole protection required. Integrable module with ATEX-compliant full thermal motor protection

1 PTB-certified PTC thermistor input

1 switch-off signal for using the Safe Stop function

1 logic output for error identification



### 130B1077 🖸

# Blindcover, w/ Danfoss logo, IP55/66

LCP Blindcover IP66



## 130B1071 <sup>12</sup>

### 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



## 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



# 130B1103 <sup>12</sup>

## VLT® CAN Open MCA 105, uncoated

Standardized handling and interoperability for high flexibility and low costs. Fully equipped with both high-priority access to control and status of the drive (PDO Communication) and access to all parameters through acyclic data (SDO Communication). For interoperability the option has implemented the DSP402 AC-drive profile.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗅





### 130B1102 🗷

### VLT® DeviceNet MCA 104, uncoated

Robust, efficient data handling thanks to advanced Producer/Consumer technology. ODVA's strong conformance testing policies ensure products are interoperable, and the AC-drive profile, supported using I/O instance 20/70.21/71, secures compatibility to existing systems.



### 130B1100 <sup>12</sup>

## VLT® Profibus DP V1 MCA 101

Provides wide compatibility, a high level of availability, support for all major PLC vendors and compatibility with future versions. Fast, efficient communication, transparent installation, advanced diagnosis and parameterization and auto-configuration of process data using GSD-file. Acyclic parameterization using PROFIBUS DP-V1, ¬PROFIdrive or Danfoss FC profile state machines, PROFIBUS DP-V1, Master Class 1 and 2.



### 130B1088 🗷

LCP Blindcover, w/ Danfoss logo, IP20/21



### 130B1490 @

# VLT® POWERLINK MCA 123, coated

Represents the second generation of fieldbus. The high bit rate of industrial Ethernet can now be used to make the full power of IT technologies used in the automation world available for the factory world.



## 175U0086 🗷

## Mount. Brack.: Footprint, A3, f.2 br.res

Back frame A3 for 2 brake resistors



### 175Z0929 12

# 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



# 175U0009 🗷

**Mounting bracket Kit, 216 x 30 x 18mm**Mounting angle for flatpack resistor 200W

## For more information, please use this link to visit the product page on Danfoss Product Store





# 175N2584 12

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

Image

### 134B6302 @

### VLT MCT 10 Software Customizer, 1 key

the commissioning experience of the VLT® to best fit your needs. It is a strong tool that enables you to quickly create your setup and test it first to MCT 10 using the simulator before uploading it to a real drive. local Danfoss Drives representative to order the required license(s).

Customize your commissioning experience

As the name suggests, VLT® Software Customizer allows you to customize Note that the Advanced MCT 10 license is needed, please contact the

Image

## 134B5225 🗷

### Remote LCP unit, 10m

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

Image coming

# 134B5224 12

### Remote LCP unit, 5m

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



## 134B5223 🗷

# Remote LCP unit, 3m

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

For more information, please use this link to visit the product page on Danfoss Product Store 🗅





### 134B0460 🗷

### **LCP 103 Wireless Communication Panel**

With VLT® Wireless Communication Panel LCP 103 you can communicate with MyDrive® Connect - an app that can be downloaded for iOS and Android based smartphones. MyDrive® Connect makes commissioning easy, monitor and maintain tasks on your frequency converter. VLT® Wireless Communication Panel LCP 103 shows the current status of the drive (On, Warning, Alarm, Wifi connection) via built-in LED. Detailed information is also available using MyDrive® Connect. Here do you have access to i.a. status, menu and alerts. You can also see graphs over the latest available data.

The new VLT® Wireless Communication Panel LCP 103 allows you to wireless communication to the following drives:

- VLT® HVAC Drive FC 102
- VLT® Refrigeration Drive FC 103
- VLT® AQUA Drive FC 202
- VLT® AutomationDrive FC 302

[!] Note!

LCP 103 only works on frequency converters produced in 2018 (White USB stik)

Product group: R1

mage oming

### 134B1992 @

## Control Terminals w/ screw connections

Image coming

# 130B6447 12

# VLT® Safety Option MCB 141

Extends the Safe Torque Off feature of VLT® drives with additional safety functions: Safe Stop 1 (SS1), Safely Limited Speed (SLS), Safe Maximum Speed (SMS) and Safe Speed Monitor (SSM).



# 130B1266 @

## VLT MCB 115 Programmable I/O, coated

VLT® MCB 115 programmable I / O, coated



# 134B6544 <sup>12</sup>

# Real Time Clock D slot option MCB117

The VLT® Real-time clock option MCB 117 option provides advanced datalogging 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

Note: This option is compatible only with MK-II control cards & upto  $90\,$ 

KW supporting A,B & C Frames.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





# 130B0295 🗷

Accessory bag with control card plugs



### 130B1022 <sup>12</sup>

Accessory bag for framesize A2, A3



## 130B4847 🗷

extension cable for lcp+communication



# 134B8814 12

**VLT® PROFINET MCA120 coated 5pcs** 



# 134B8492 <sup>12</sup>

Transducer 0-10g, 4-20mA; HS-22B50



# 134B8493 🗷

**CBM Transducer 0-25mm/s RMS 4-20mA**CBM Transducer 0-25mm/s RMS 4-20mA



# 134B8494 <sup>12</sup>

Transducer w, temp 0-25mm/s RMS 4-20mA



# 134B8496 12

Cable assy 10m, straight socket connetc.



# 134B8497 🗷

Cable assy, M12 female connec.10m screen

# For more information, please use this link to visit the product page on Danfoss Product Store



# **Spare Parts**



# 130B7530 🗷

**Mounting Kit f. C Option, 40mm, A2/A3** MCF 105 assembly kit A2 / A3 for C option



# 130B9001 <sup>12</sup>

multiple 2 pole power combicon, 24V plug



## 130B5601 <sup>12</sup>

VLT® DeviceNet converter MCA194 coated VLT® DeviceNet converter MCA194 coated



# 130B1012 12

Terminal cover frame A1-A3 with option



# 130B1011 🗷

Terminal cover frame A1-A3 w/o option



# 130B1008 @

Frame for LCP Control Pad with option



# 130B1007 🗷

Frame for LCP Control Pad w/o option



## 130B1022 @

Accessory bag for framesize A2, A3



# 130B0295 🗷

Accessory bag with control card plugs



# 130B1073 🗷

10 pole connector

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷



### **Spare Parts**



# 130B1072 🗷

8 pole connector



### 130B1069 <sup>12</sup>

# Multiple relay 1 plug

spare, 3 pole connector, relay 1, fc300



## 130B1068 @

# Multiple relay 2 plug

spare, 3 pole connector, relay 2, fc300



### 130B1067 🗷

Multiple non-twistd mains plug



# 130B1064 12

### Terminal block for brake and loadsharing

Terminal block for brake and loadsharing



# 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



## 130B1097 🗷

Fan assembly 80x80x25mm coated



# 130B1088 🗷

LCP Blindcover, w/ Danfoss logo, IP20/21



# 134B1726 12

# Control Card with safe stop for FC-302

NOTE:

The MKII control cards are backward compatible to the old cards but will only work with SW equal or higher than 8.12. If your drive has a customer specific software or a brand labeled software version please order the old control card MKI PN: 130B1109

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷



### **Spare Parts**



# 134B1975 🗷

## **Decoupling Plate for filedbus Cables**



### 130B1383 @

### acc. bag multipck 5 pc frame A2/3

Krones acc. bag multipack 5pcs for A2/3-frame.

#### Services



### 131B0052 12

# FC-302P7K5T5E20H1BGXXXXSXXXXAXBXCXXXXDX

Frequency converter

FC-302P7K5T5E20H1BGXXXXSXXXXAXBXCXXXXDX

VLT® AutomationDrive FC-302

(P7K5) 7.5 KW / 10 HP, Three phase

380 - 500 VAC, (E20) IP20 / Chassis

(H1) RFI Class A1/B (C1)

Brake chopper

Graphical Loc. Cont. Panel

Not coated PCB, No Mains Option

Latest release std. SW.

No A Option, No B Option

No C1 option, No D option

Frame: A3

Other options according to Model code

# Model code: FC-302P7K5T5E20H1BGXXXXSXXXXAXBXCXXXXDX

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.



# 130R1121 🗷

# **DrivePro ExWarr Work Shop PG03 30 months**

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local

Danfoss Drives sales office for extended warranty contract options.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷





### 130R1120 🗷

### DrivePro ExWarr Work Shop PG03 24 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1122 🖸

## DrivePro ExWarr Work Shop PG03 36 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1123 🖸

### DrivePro ExWarr Work Shop PG03 42 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1126 <sup>™</sup>

# **DrivePro ExWarr Work Shop PG03 60 months**

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1125 🗷

# DrivePro ExWarr Work Shop PG03 54 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1124 2

# **DrivePro ExWarr Work Shop PG03 48 months**

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.

### For more information, please use this link to visit the product page on Danfoss Product Store





### 130R1127 🗷

### DrivePro ExWarr Work Shop PG03 66 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1128 🗈

### DrivePro ExWarr Work Shop PG03 72 months

DrivePro® Standard Extended Warranty provides repair at a Danfoss Drives workshop, or shipment of a replacement product to the site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



#### 130R1024 12

### **DrivePro ExWarr Onsite PG03 48 months**

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1025 <sup>™</sup>

### **DrivePro ExWarr Onsite PG03 54 months**

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1020 🗷

# DrivePro ExWarr Onsite PG03 24 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1022 @

# DrivePro ExWarr Onsite PG03 36 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.

### For more information, please use this link to visit the product page on Danfoss Product Store





### 130R1021 🗷

### DrivePro ExWarr Onsite PG03 30 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1027 🖸

### DrivePro ExWarr Onsite PG03 66 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



### 130R1026 2

### DrivePro ExWarr Onsite PG03 60 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1028 🗷

### **DrivePro ExWarr Onsite PG03 72 months**

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.



# 130R1023 🗷

# DrivePro ExWarr Onsite PG03 42 months

DrivePro® On-site Extended Warranty provides repair at the customer site, or replacement at the customer site.

You can only order DrivePro® Extended Warranty when purchased with a new drive. For drives previously shipped or purchased; contact your local Danfoss Drives sales office for extended warranty contract options.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗅





### 130R1303 🗷

### DrivePro Start-Up unit pre-order small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- Maximum energy savings to the Customer.
- Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.



### 130R1324 @

### DrivePro SU + ctr interface test A,B & C

DrivePro Start-Up Control interface testing small frame unit



# 130R1321 🗷

### DrivePro SU + spec. applications A,B & C

DrivePro Start-Up special applications small frame unit



## 130R1313 🗷

# DrivePro Start-Up 1 day on-demand small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines.
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- $\bullet \ Maximum \ energy \ savings \ to \ the \ Customer.$
- $\bullet$  Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.

### For more information, please use this link to visit the product page on Danfoss Product Store





### 130R1312 @

### DrivePro Start-Up 1 Day Pre-order small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines.
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- $\bullet \ Maximum \ energy \ savings \ to \ the \ Customer.$
- Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.



### 130R1304 🗷

### DrivePro Start-Up unit on-demand small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- Maximum energy savings to the Customer.
- Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.

## For more information, please use this link to visit the product page on Danfoss Product Store 🗷



Image coming

### 130R1380 🗷

### DrivePro Start-Up 1/2 day pre-order small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- Maximum energy savings to the Customer.
- Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.

General Terms and Conditions of Delivery and Warranty apply.

Image

### 130R1381 2

# DrivePro Start-up 1/2 day on-demand small

DrivePro® Start-up gives the Customer a full range of checks and adjustments during commissioning of the drive, ensuring their system is tuned for optimal performance right from day one.

The following benefits can be gained:

- Installation is checked to ensure it complies to Danfoss guide lines
- The AC drive is fine-tuned specific to the application, ensuring optimal performance.
- Maximum energy savings to the Customer.
- Extend the AC drive's lifespan.
- Report detailing findings.

Before DrivePro® Start-up can be implemented, the AC drive must be installed and

ready for operation. The entire system must be fully operational under normal operation conditions. Installation of the drive is not included in this package. Commissioning needs to take place during the standard working hours.

General Terms and Conditions of Delivery and Warranty apply.