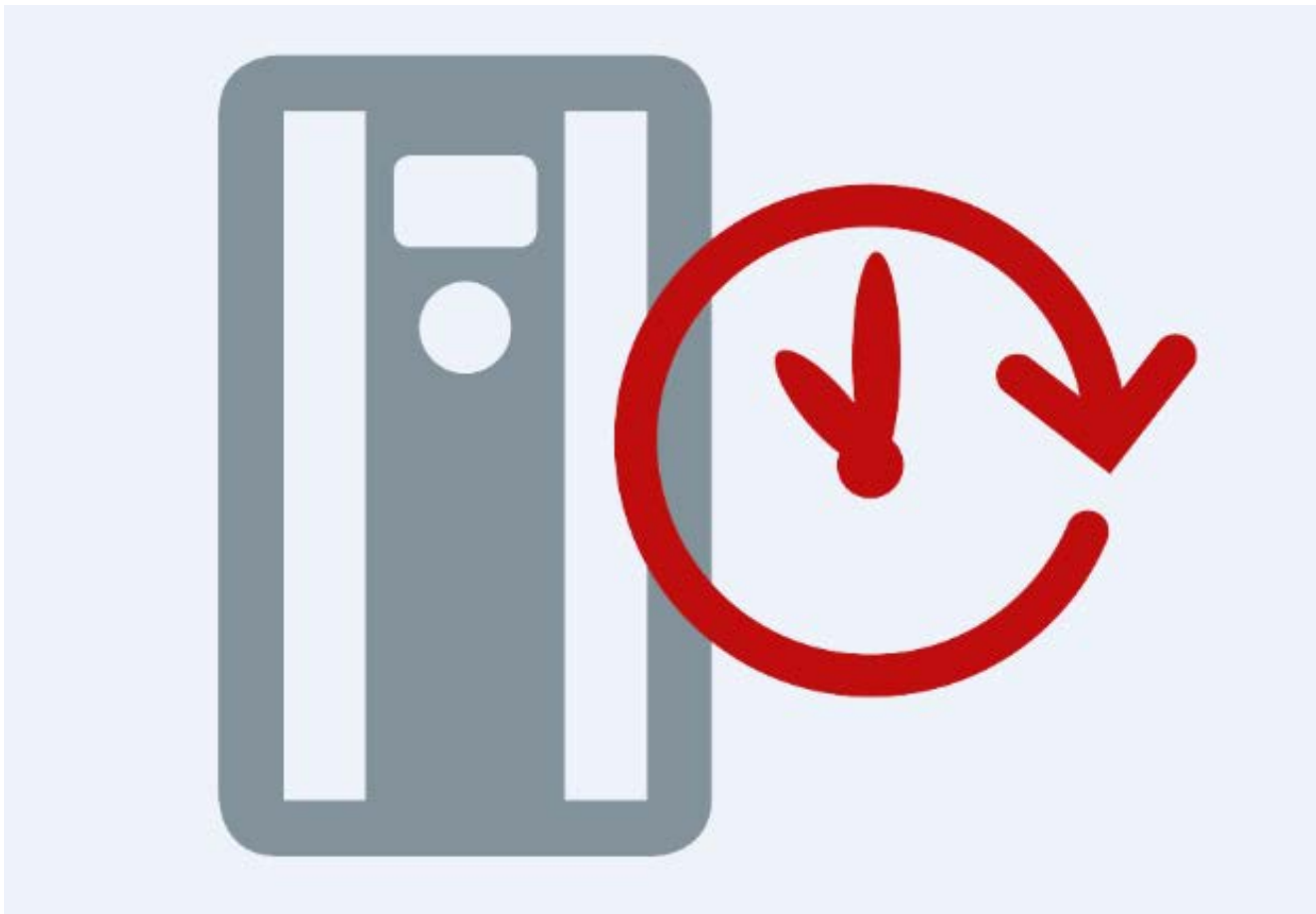




Service Delivery Manual



DrivePro[®] Retrofit

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1 Introduction

The expected lifecycle of an AC drive is long and contains diverse phases, each with different characteristics and requirements. From engineering and dimensioning for a new installation, through procurement, delivery and installation, to the long usage phase - all activities contribute to the value chain and product lifecycle. Danfoss service offering has been designed to maximize the benefits improving the overall efficiency and profitability, and minimize the operational costs of the Danfoss AC drive solution in any application or segment. Addressing the different phases of the lifecycle, the service portfolio utilizes Danfoss' extensive expertise, in-depth knowledge, and experience in the practical use of Danfoss AC drives in different applications and industries.

Danfoss is offering **DrivePro® Retrofit** service to provide a smooth plan for managing the end of product lifecycle by converting the old product to a new model. This manual describes the service delivery for the service product **DrivePro® Retrofit**.

This manual includes all internal and external requirements, tools, and solutions for internal sales, service, and order handling. This manual should only be available for internal Danfoss personnel.

1.1 Purpose

Global Service Products are created to harmonize service offering and to market services globally as part of the **DrivePro® Lifecycle** product offering.

However, even if the marketing message is global, there are differences in how each of these services is delivered to the customers. Keep in mind that the services are not identical across countries, because the evolution and markets differ.

1.2 Danfoss Service Business

The local sales organization is to act proactively to increase its Service Business Center result by selling services such as service agreements, commissioning, training, consultancy, change to new, warranty upgrade - in general all services beyond the standard service performance. For more information, see Danfoss Standard 500G0019 – §5.1.

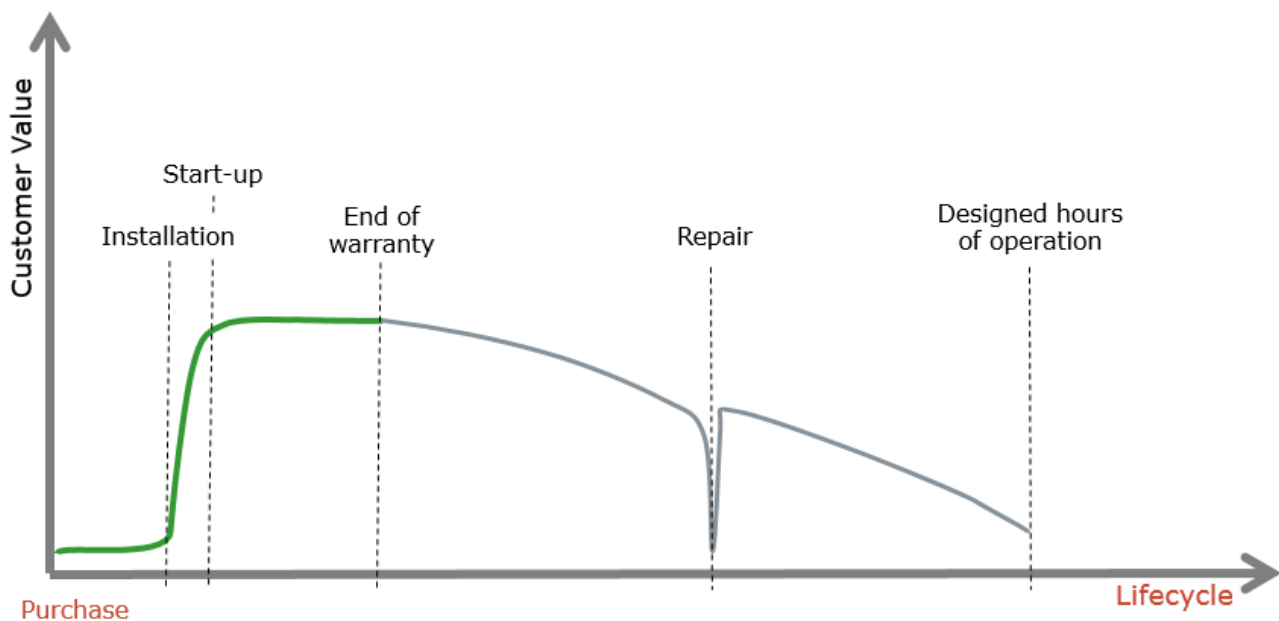
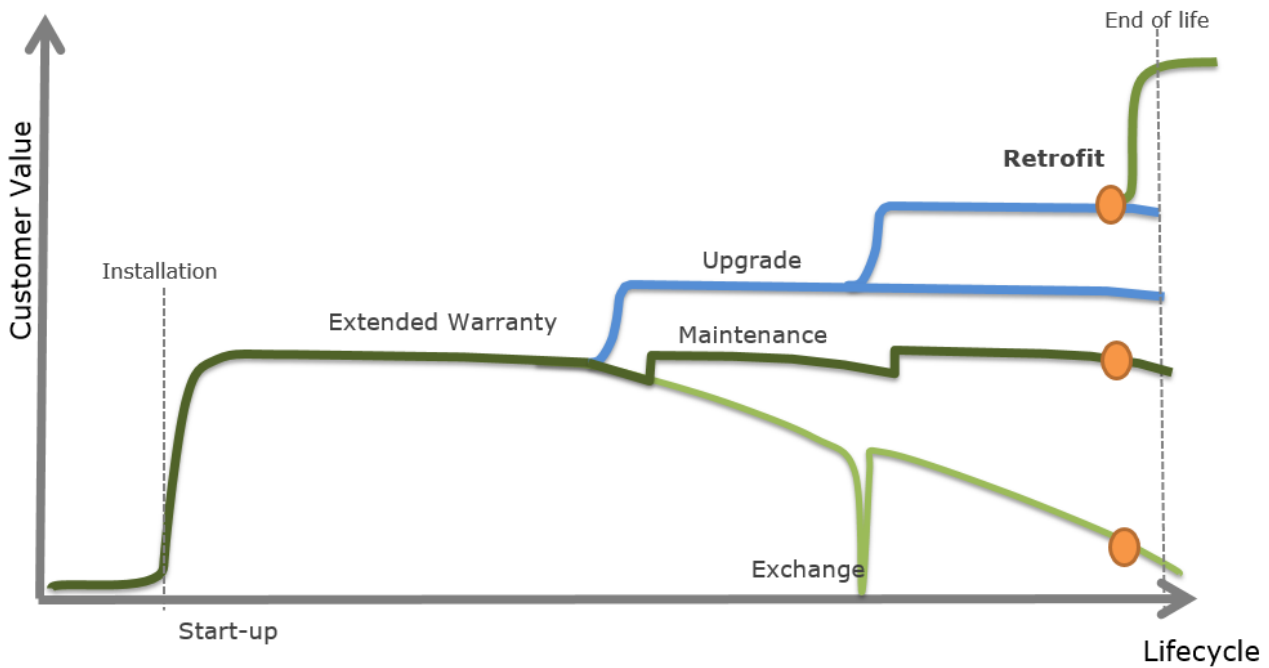


Illustration 1.1 Typical Lifecycle of Drive Without Lifecycle Management



● The typical need for Retrofit unit in the product lifecycle.

Illustration 1.2 DrivePro® Lifecycle Services with Lifecycle Management

Lifecycle Management improves customers’ overall efficiency and minimizes operational costs, increases customer value, and at the same time creates Danfoss service revenue points throughout the lifecycle stages.

1.3 Delivery Competence Requirements

Listed below are the prerequisite competences that personnel should have before they can attend the **DrivePro® Retrofit** service product training:

VACON

- VST (sales, service, service support, and order handling).
- CRM (sales, service, service support, and order handling).
- Summium (Sales and order handling).
- iScala (service and order handling).
- VSRT (service and order handling).
- Product trainings (sales, service, and service support) for the products in scope.
- Service trainings (service and service support) for the products in scope.

Danfoss

- SAP PL08 and PL16 (order, service transactions).
- SAP CRM (order handling).
- VLT shop (order handling for partner and customer).
- WIIS system (failure registrations system, refurbish).
- Product trainings (sales, service, and service support) for the products in scope.
- Service trainings (service and service support) for the products in scope.

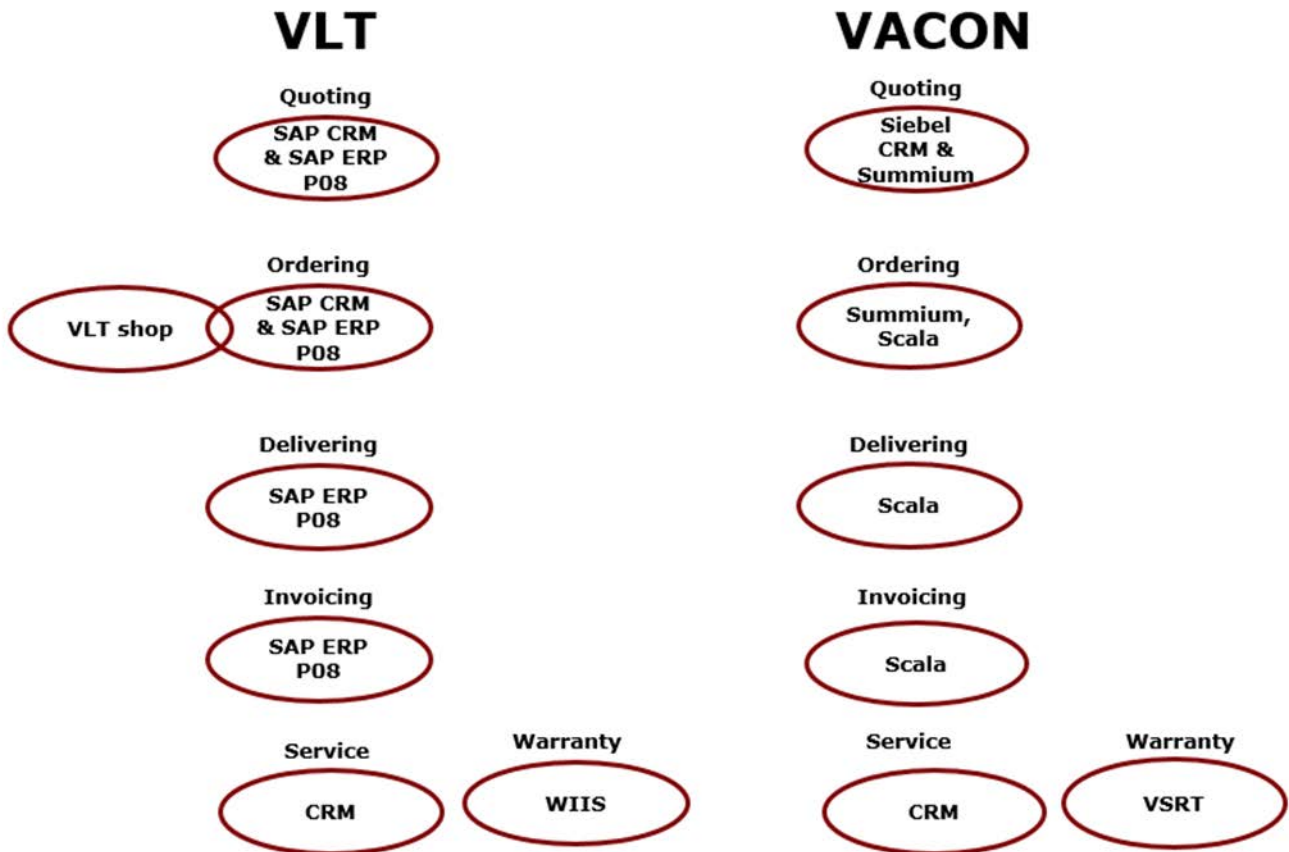


Illustration 1.3 Visualization of Tools for End-to-end Delivery of Service Products

2 Safety

2.1 Safety Symbols

The following symbols are used in this manual:



Indicates a potentially hazardous situation that could result in death or serious injury.



Indicates a potentially hazardous situation that could result in minor or moderate injury. It can also be used to alert against unsafe practices.



Indicates important information, including situations that can result in damage to equipment or property.

2.2 Qualified Personnel

Qualified personnel is defined as trained staff, who is authorized to install, commission, and maintain equipment, systems, and circuits in accordance with pertinent laws and regulations. Also, the qualified personnel must be familiar with the instructions and safety measures described in the operating guide for the drives product. Correct and reliable transport, storage, installation, operation, and maintenance are required for the trouble-free and safe operation of the drive. Only qualified personnel is allowed to install or operate this equipment.

2.3 Authorized Personnel

Authorized personnel is qualified personnel, trained by Danfoss to service Danfoss products.

2.4 Safety Precautions

Each field service office must carry out service taking all necessary precautions to avoid death, serious injury, and damage to equipment. See Instruction number 501G2041 (Precaution).

This section describes requirements to personnel and safe practices to observe when performing service and maintenance procedures.

3 Product Definition

3.1 DrivePro® Retrofit

DrivePro® Retrofit offers a service to provide a smooth plan for managing the end of product lifecycle by converting the old product to a new model. The service may include an audit of the current environment and planning and delivery of the required retrofit kit into the existing environment. Retrofitting minimizes the impact to the existing process and installation, but also improves overall performance brought about by the new functions and latest technology.

In the 1st phase launch, DrivePro® Retrofit is limited to replacement of the drive.

Customer benefits:

- Mitigates installation costs.
- Smooth planning which minimizes the impact of product end-of-life on process availability.
- Achieve additional process and energy efficiency by adopting the latest technology in an existing drive system.

The DrivePro® Retrofit consists of 2 elements:

- New Drive
 - Brand new drive
 - Latest Technology
- Audit Process (Optional service)
 - Danfoss certified audit process
 - Done by experts
 - Ensure smooth transition

3.2 DrivePro® Retrofit Audit

DrivePro® Retrofit Audit is an optional part of the initial phase of the sales process. The service is ordered by sales and delivered by service. The DrivePro® Retrofit audit is a separate fee-paid service agreement with the customer. The service is invoiced separately before the delivery of one or more new drives replacements.

The DrivePro® Retrofit audit is an optional service focusing on identifying specific opportunities that can save the customer energy, improve technology, reduce maintenance cost, and/or increase operational efficiency by recommending retrofitting to new drive.

The purpose of the audit planning is to ensure optimal uptime and productivity during the replacement process. The audit is to develop a customized implementation plan for the installation of one or more new products.



Illustration 3.1 DrivePro® Retrofit Audit and Service Delivery.

*Optional fee paid service

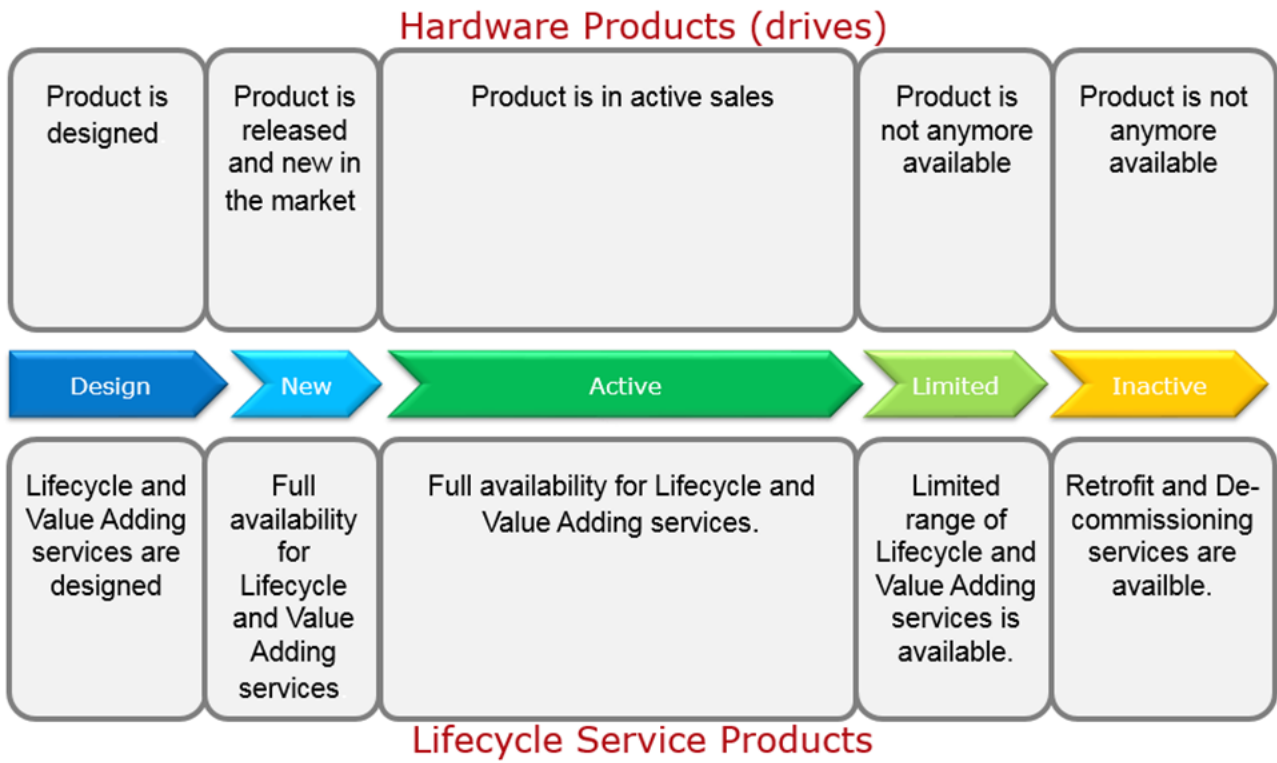


Illustration 3.2 Lifecycle Comparison of Service Products and Hardware Products

4 Product Overview

4.1 Availability

The DrivePro® Retrofit is available for the following products:

- VLT® 2800
- VACON® CXL
- VACON® CXS
- VACON® CX

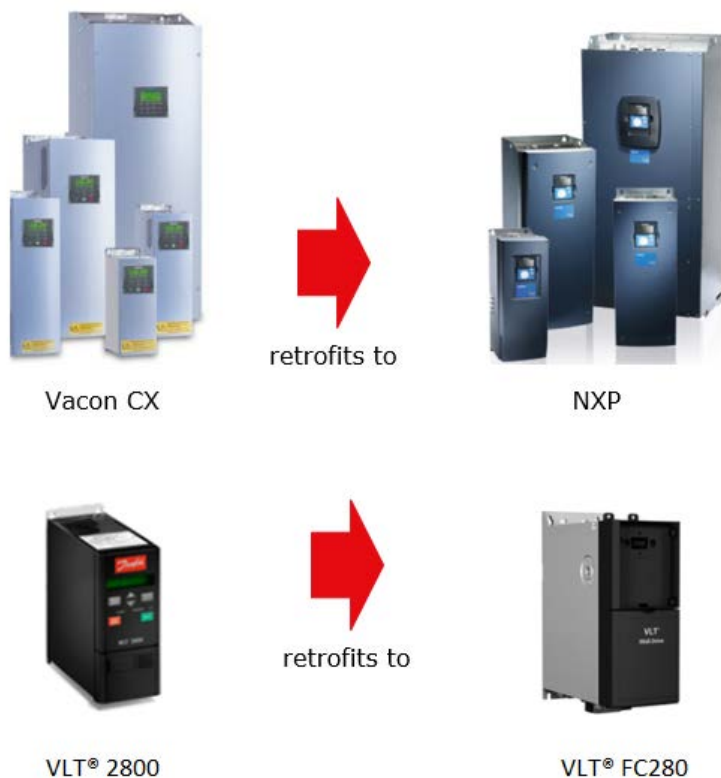


Illustration 4.1 Retrofit examples

More products will continuously be added to the DrivePro® Retrofit program and the conversion tools.

NOTICE

The list given above only shows the products currently covered. It is subject to changes, as DrivePro® Retrofit is introduced at the end of 2016 and is developed to include the following drives:

- NXL
- V10 to V20
- FC360

4.2 Product Structure

The DrivePro® Retrofit product structure is designed to enable the selling of a new drive that is backwards compatible to the customers' existing legacy drive that is no longer available for sale or soon to be phased out.

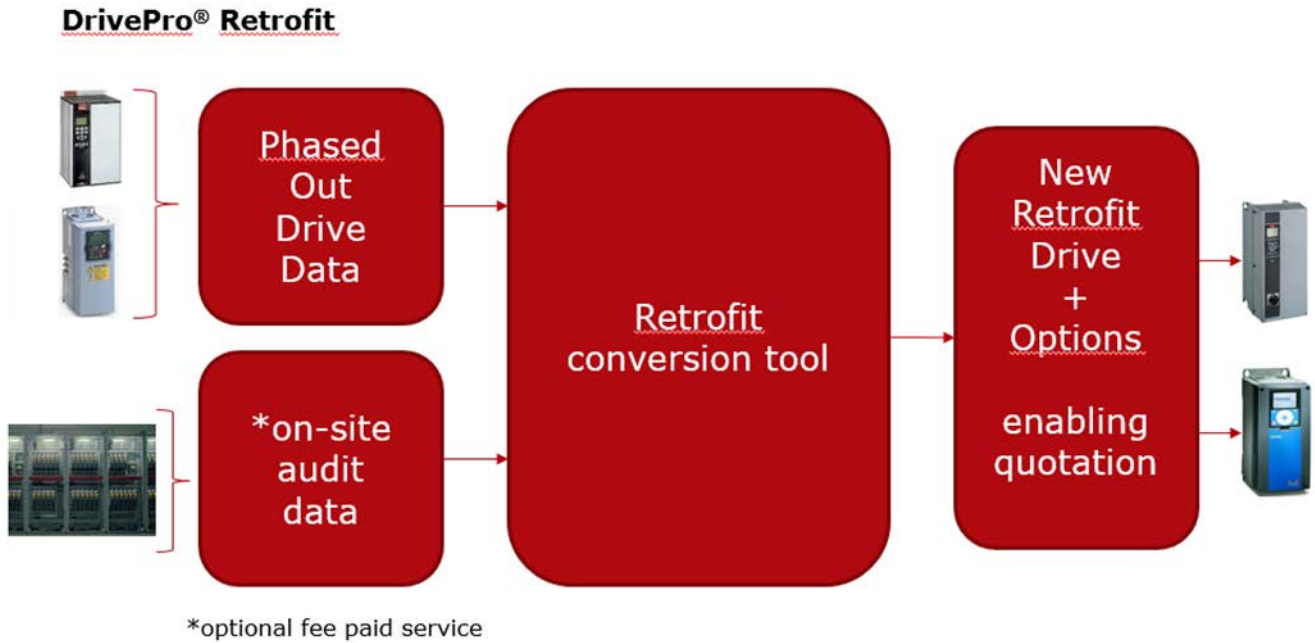


Illustration 4.2 Retrofit Product Structure

5 Product Codes

5.1 Sales Codes

The hardware sales codes for DrivePro® Retrofit drives remain the same as the existing sales codes for quotation and ordering for both the VLT® and VACON® brands. There have been no new codes created for the replacement drive solution.

5.2 Audit Codes

Service audit codes are created to recognize the DrivePro® Retrofit audit service for tracking.

Quote the audit codes as a single price all-inclusive service visit. There are 2 levels of expertise required for auditing - depending on the complexity of the drive system.

- Standard fixed price – (priced locally per country labor rates)
- Specialist or expert fixed price - (priced locally per country labor rates)

Table 5.1 and 5.2 shows the service codes for the VACON® and VLT® brands retrofit audit.

Code number	Designation/ Description
WSC-RETROFIT-AUDIT-STD-FIX	DrivePro® Retrofit Audit on-site Standard Fixed Price
WSC-RETROFIT-AUDIT-SPC-FIX	DrivePro® Retrofit Audit on-site Specialist Fixed Price

Table 5.1 VACON® Brand Retrofit Audit Service Codes

Code number	Designation/ Description
192Z2023	DrivePro® Retrofit Audit Standard Fixed Price
192Z3023	DrivePro® Retrofit Audit Expert Fixed Price

Table 5.2 VLT® Brand Retrofit Audit Service Codes

6 Sales and Service Overview

6.1 Sales Process Overview

The sales process is designed and created using the same tools and supporting resources, as selling a hardware drive product.

The DrivePro® Retrofit audit, if required, is part of the initial phase in the sales process. This is ordered by sales and delivered by service. New service codes are created to recognize a retrofit service audit. The DrivePro® Retrofit audit is a separate service agreement with the customer and invoiced separately before the delivery of one or more new drives replacements.

The service claim process is designed and created using existing tools and resources with no changes to existing processes post sale of any new drive.

The DrivePro® Retrofit consists of 2 elements:

- New Drive
 - Brand new drive
 - Latest technology

- Audit Process (optional service)
 - Danfoss certified audit process
 - Done by experts
 - Ensures smooth transitions

6.2 Sales and Delivery Channels

6.2.1 Direct Channel – End-users buy Service Products Directly from Danfoss

Sometimes end-users purchase the products directly from Danfoss, and services directly from the manufacturer. This is called the direct channel.

6.2.2 Indirect Channel – End-users buy Service Products from Their Supplier

End-users can also purchase the products and services through the indirect channel (OEMs, SIs, Distributors, and so on). The indirect channel might use own or Danfoss service capabilities, but Danfoss has no direct business relationship with the end users.

For each service product, a general sales channel is proposed and must be verified, adapted, and documented in the local launch.

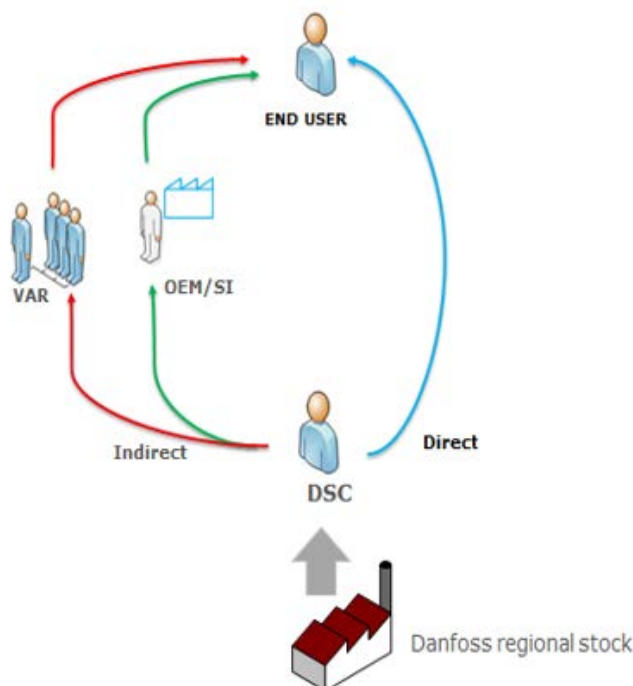


Illustration 6.1 Direct and Indirect channels

6.3 Pricing Principles

The new DrivePro® Retrofit replacement drive follows the same pricing and discount structure as a new hardware product.

The optional DrivePro® Retrofit audit is a service priced and invoiced separately from the hardware.

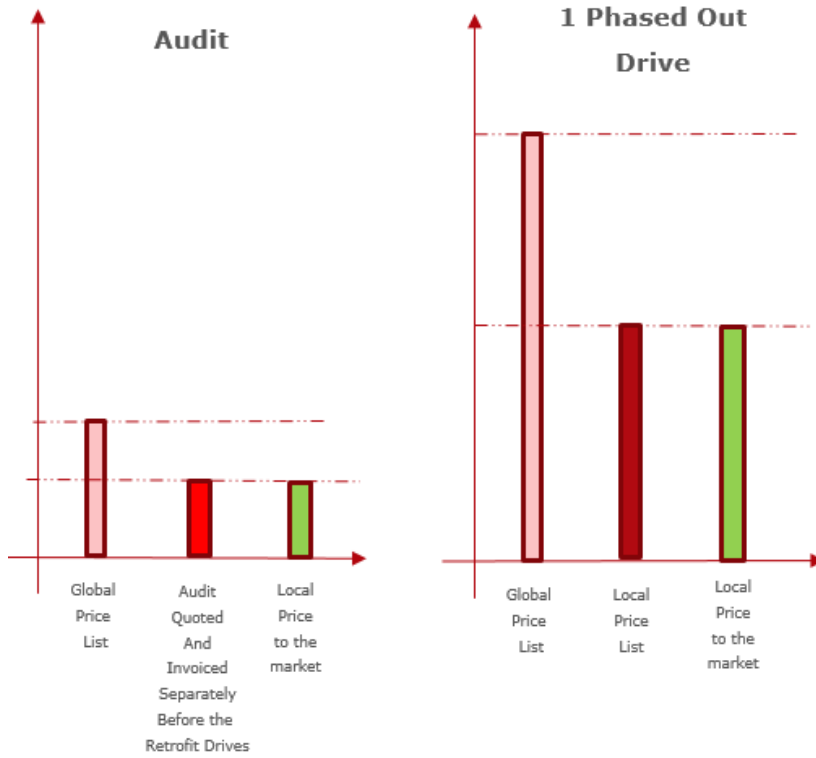


Illustration 6.2 Pricing Principle 1 Phased out Drive

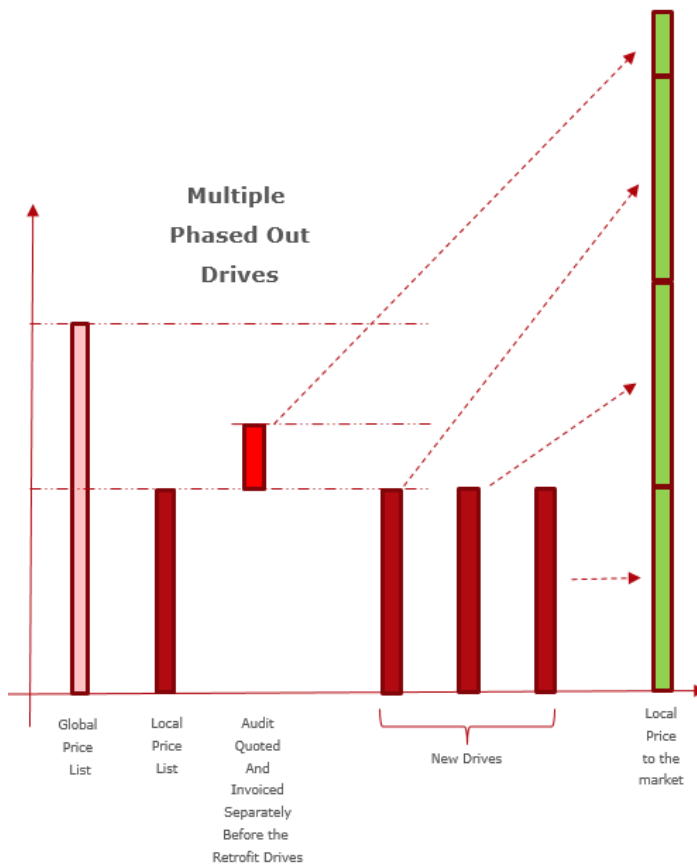


Illustration 6.3 Pricing Principle Multiple Phased out Drives

7 Search, Quote, Order, and Invoice

The sales and service tools and process are designed and created using the same tools and supporting resources as selling/servicing a hardware drive product.

NOTICE

The hardware sales codes for DrivePro® Retrofit drives remain the same as existing sales codes for both the VLT and VACON brands. There have been no new codes created for the replacement drive solution. Tools for quoting, ordering, and invoicing remain the same.

7.1 Sales and Service Tools

Table 7.1 shows the various sales and service tools for VLT® and VACON® activities.

Activity	VLT®	VACON®
Search tool	VLT shop	VLT shop
Quotation	SAP CRM, SAP ERP P08	Siebel CRM, Summium
Ordering	VLT shop, SAP CRM, SAP ERP P08	Summium, iScala
Invoicing	SAP ERP P08	iScala
Service	CRM	CRM
Warranty	WIIS	VSRT

Table 7.1 Systems for VLT® and VACON® activities

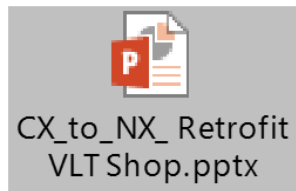
NOTICE

For countries not merged, quoting, ordering, and invoicing are available in Summium and iScala for VACON brand. Implementation into Salesforce Quoting tool is under development.

7.2 Search Tool - Retrofit Conversion Tool and Drive Configurator VLT® Shop

The conversion tool for all VLT® and VACON® brands is in the VLT® Shop. The DrivePro® Retrofit conversion tool functionality and user interface experience is the same as the discontinued products tool. VLT® and VACON® retrofit products can be ordered in the VLT® Shop. Follow the link below to refer to the documents for further user instructions in the VLT Shop.

<http://portal.danfoss.net/divisions/PE/sales/GlobalAfterMarketService/Pages/Service-Documents.aspx?RootFolder=%2Fdivisions%2FPE%2Fsales%2FGlobalAfterMarketService%2FService%20Documents%20New%2FDrivePro%20Lifecycle%20Services%2FDrivePro%20Retrofit&FolderCTID=0x01200058CC32D66D05784A83687266F764BA1F&View={1D279D9F-4CB5-4414-A015-7085427601CB}>



Searching and ordering the replacement drive solution:

1. Access the VLT® shop via vltshop.danfoss.com and log in to the shop.

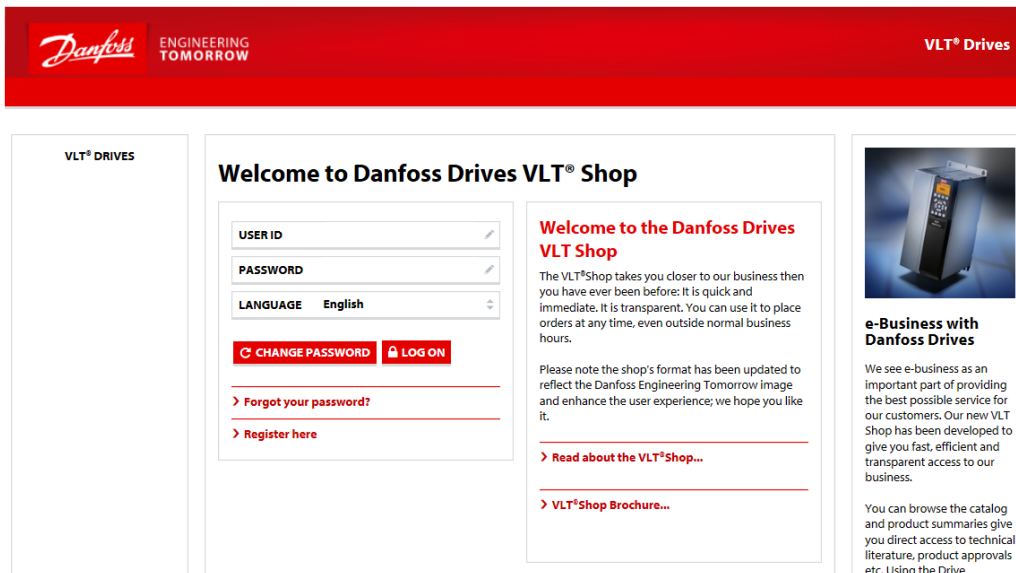


Illustration 7.1 Front Page of the VLT® Shop

- Find the relevant discontinued product via a search in the product catalog.

The screenshot shows the Danfoss website interface. At the top, there is a red navigation bar with the Danfoss logo, the tagline 'ENGINEERING TOMORROW', and 'VLT® Drives'. Below this is a secondary navigation bar with links for HOME, PRODUCTS, SEARCH, SHOPPING CART, MY HISTORY, CONTACT SALES, and LOGOUT. A welcome message 'WELCOME DEA PETERSEN DALL' is visible on the right.

The main content area is titled 'VLT® 2800 Variants' and features a product image of a black drive unit. Below the image are buttons for 'ADD SELECTION TO CART' and 'EXPORT SELECTION', along with a 'PRODUCTS PER PAGE 5' dropdown.

A table lists discontinued products with the following columns: ITEM AVAILABILITY, QUANTITY, CODE NO., DESCRIPTION, and PRICE. All items are marked as 'NO LONGER AVAILABLE'.

ITEM AVAILABILITY	QUANTITY	CODE NO.	DESCRIPTION	PRICE
<input checked="" type="checkbox"/>	1	> 131X1446	VLT2882PT4CN15TR0DBF30A00C0	NO LONGER AVAILABLE
<input checked="" type="checkbox"/>	1	> 131X2271	VLT2881PT4CN15BR3DBF00A00C0	NO LONGER AVAILABLE
<input checked="" type="checkbox"/>	1	> 131X2274	VLT2840PD2CN15TR0DBF00A00C0	NO LONGER AVAILABLE
<input checked="" type="checkbox"/>	1	> 131X4780	VLT2822PT4B205BR1DBF10A00C1	NO LONGER AVAILABLE
<input checked="" type="checkbox"/>	1	> 131Z1108	VLT2815PT4B20STR5DBF00A00C1	NO LONGER AVAILABLE

A pagination bar at the bottom of the table shows '1/2/3/4/5/6/7/8/9/10' with a right-pointing arrow.

Illustration 7.2 Search for Relevant Discontinued Product

- To view the replacement drive, click the *Convert to New Product* link.

The screenshot displays the Danfoss website interface. At the top, there is a navigation bar with the Danfoss logo, 'ENGINEERING TOMORROW', and 'VLT® Drives'. Below this is a secondary navigation bar with links for HOME, PRODUCTS, SEARCH, SHOPPING CART, MY HISTORY, CONTACT SALES, and LOGOUT. A welcome message for 'POONAM AMOL CHOPAD' is visible on the right. The main content area is divided into three sections: a shopping cart on the left showing a value of 0.00 and a 'View Cart' link; a product catalog on the left with a search bar and a list of categories including Drive Configurator, Frequency Converters, Decentral Products, Soft Starters, Power Options, Spare Parts, and ServicePro; and a central product information section. The product information section includes a 'GENERAL INFORMATION' header, a 'QUANTITY (PC)' dropdown set to 1, and an 'ADD TO CART' button. Below this, a table lists product details: CODE NO. (2800_SER - 17888591), NAME (VLT2807PD2B205BR0DBF00A00C1, VLT 2800 Serie, 0.75kW / 1.0 HP, 1X220-240V 50/60Hz, Without filter (No EMC), IP20), EAN (5702427106093), PRICE (322.11 EUR), and ESTIMATED AVAILABILITY (Check). On the right side of the product information, there is an 'EXTRAS' section with links for 'Display General Information', 'Configuration', 'Display Spareparts', 'Display Power Options', 'Display Documents', and 'Display Accessories'. A blue box highlights the 'Convert to New Product' link at the bottom of the EXTRAS section.

Illustration 7.3 Link to Convert to New Product

- General information about the new replacement drive is shown and it is possible to order it directly from this page.

ENGINEERING TOMORROW **VLT® Drives**

HOME PRODUCTS SEARCH SHOPPING CART MY HISTORY CONTACT SALES LOGOUT

WELCOME POONAM AMOL CHOPADI

SHOPPING CART
VALUE 0.00
View Cart

PRODUCT CATALOG

QUICK SEARCH

Extended Search

VLT® Drives
Drive Configurator
Frequency Converters
Decentral Products
Soft Starters
Power Options
Spare Parts
ServicePro
Discontinued Products

VLT® DRIVES > FREQUENCY CONVERTERS > VLT® MIDI DRIVE FC 280 > CONFIGURE YOUR OWN

PRODUCT DETAILS - 134X3042
VLT® MIDI DRIVE FC 280

Danfoss VLT® Midi Drive FC 280 is a flexible drive for industrial applications. The drive saves space, with its compact enclosure & design for side-by-side mounting. It offers a wide range of powerful standard & optional features, user-friendly design of HMI, application selections & long lifetime in harsh environments. A range of optional fieldbus protocols are available. For easy commissioning or service, it connects easily to a PC via USB port. The VLT® Midi Drive FC-280 is an easy retrofit for the VLT® 2800, using an adapter plate.

Note: Built-in DC choke for whole power range. LCP Displays are external options.

Product Data
Typecode: FC-280PK3752E20H1XXCXXSXXXXX
0.37 kW / 0.50 HP, Single phase 200-240 VAC, No display, IP20 / Chassis, Frame Size:K1

GENERAL INFORMATION QUANTITY (PC) 1 **ADD TO CART**

CODE NO.	280_SER - 134X3042
NAME	FC-280PK3752E20H1XXCXXSXXXXX VLT® Midi Drive FC 280 0.37 kW / 0.50 HP, Single phase 200-240 VAC, IP20 / Chassis, RFI Class A1/B (C1), No Brake chopper, No Adaption, No Adaption, Coated PCB, No mains options
EAN	5710108091705
PRICE:	303.00 EUR
ESTIMATED AVAILABILITY	Check

EXTRAS

- Display General Information
- Configuration
- Display Spareparts
- Display Power Options
- Display Documents
- Display Accessories

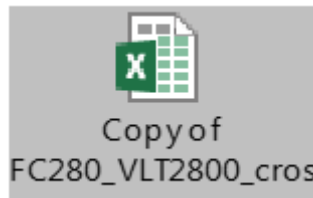
RETURN TO: OLD PRODUCT

Illustration 7.4 Information about Replacement Drive

7.2.1 Retrofit Conversion Tool in Excel for VLT® 2800 to FC® 280

Follow the link below to use the excel version of the conversion tool:

<http://portal.danfoss.net/divisions/PE/sales/GlobalAfterMarketService/Pages/Service-Documents.aspx?RootFolder=%2Fdivisions%2FPE%2Fsales%2FGlobalAfterMarketService%2FService%20Documents%20New%2FDrivePro%20Lifecycle%20Services%2FDrivePro%20Retrofit&FolderCTID=0x01200058CC32D66D05784A83687266F764BA1F&View={1D279D9F-4CB5-4414-A015-7085427601CB}>



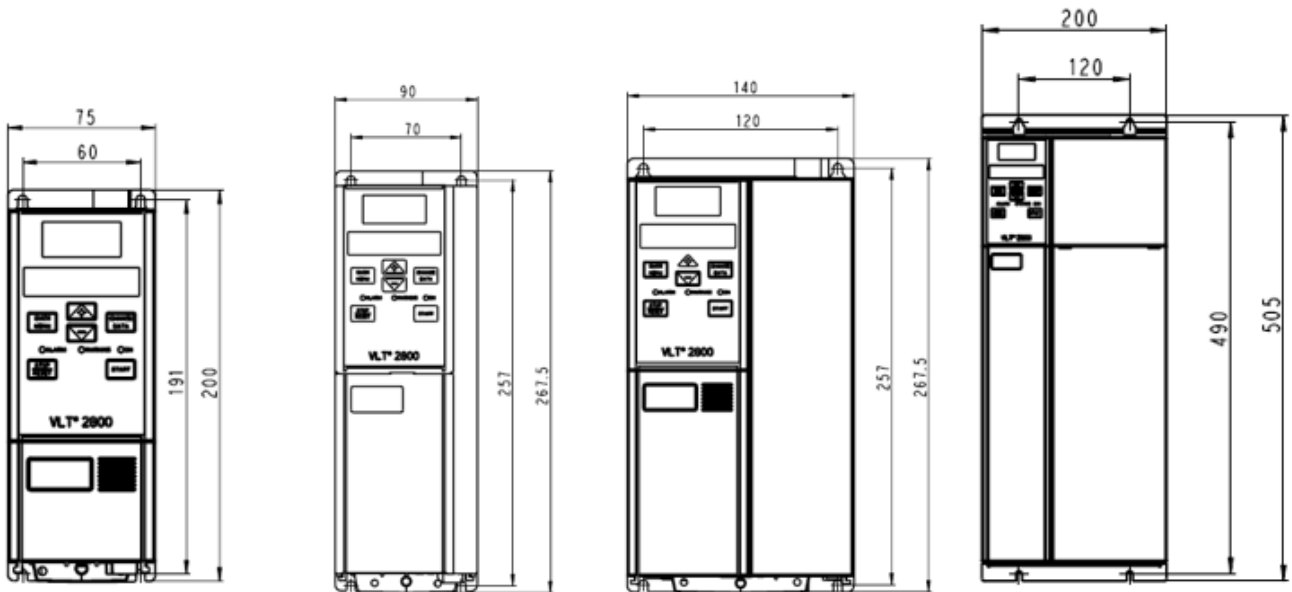
7.2.2 Additional Components for Fully Replacing the Existing VLT® 2800 Installation

Table 7.2 is a list of additional components that maybe needed to convert the VLT® 2800 to FC 280.

132B0254	VLT® Control Panel LCP 21 (NLCP)
132B0102	NLCP Remote Mounting Kit, w/ 3 m cable
130B1107	VLT® Control Panel LCP 102 (GLCP)
132B0281	Adapter, Graphical LCP
130B1117	GLCP Remote Mounting Kit, w/ 3 m cable
132B0262	LCP blind cover, IP20/21
132B0335	IP21/Type 1 conversion kit, K1
132B0336	IP21/Type 1 conversion kit, K2
132B0337	IP21/Type 1 conversion kit, K3
132B0338	IP21/Type 1 conversion kit, K4
132B0339	IP21/Type 1 conversion kit, K5
132B0363	Adapter Plate, VLT® 2800 size A
132B0364	Adapter Plate, VLT® 2800 size B
132B0365	Adapter Plate, VLT® 2800 size C
132B0366	Adapter Plate, VLT® 2800 size D
132B0368	VLT® 24 V DC Supply MCB 106
132B0359	VLT® Memory Module MCM 102

Table 7.2 Additional components for replacing existing VLT® 2800 installation

The VLT® Midi Drive FC 280 is an easy retrofit for the VLT® 2800, using the adapter plates, ordered as an accessory. *Illustration 7.5* indicates the dimensions of the VLT® 2800 and the adapter plate ordering number for easy retrofit.



VLT2800 size A
order adapter plate
132B0363

VLT2800 size B
order adapter plate
132B0364

VLT2800 size C
order adapter plate
132B0365

VLT2800 size D
order adapter plate
132B0366

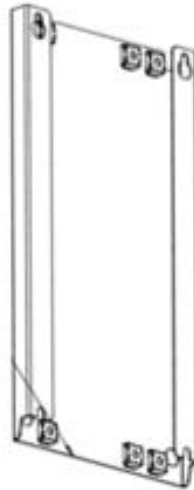


Illustration 7.5 Dimensions of the VLT® 2800 and orderable adapter plates material numbers for Retrofit to FC 280

7.2.3 Retrofit Conversion Chart for CX/L/S to NX

NOTICE

It is recommended for CX drives enclosure size M7 and above to perform an on-site audit of customer's installation.

The CX type code has 10 designations. However, the type code is variable in length. *Illustration 7.6* shows the description of the variable type code variations.

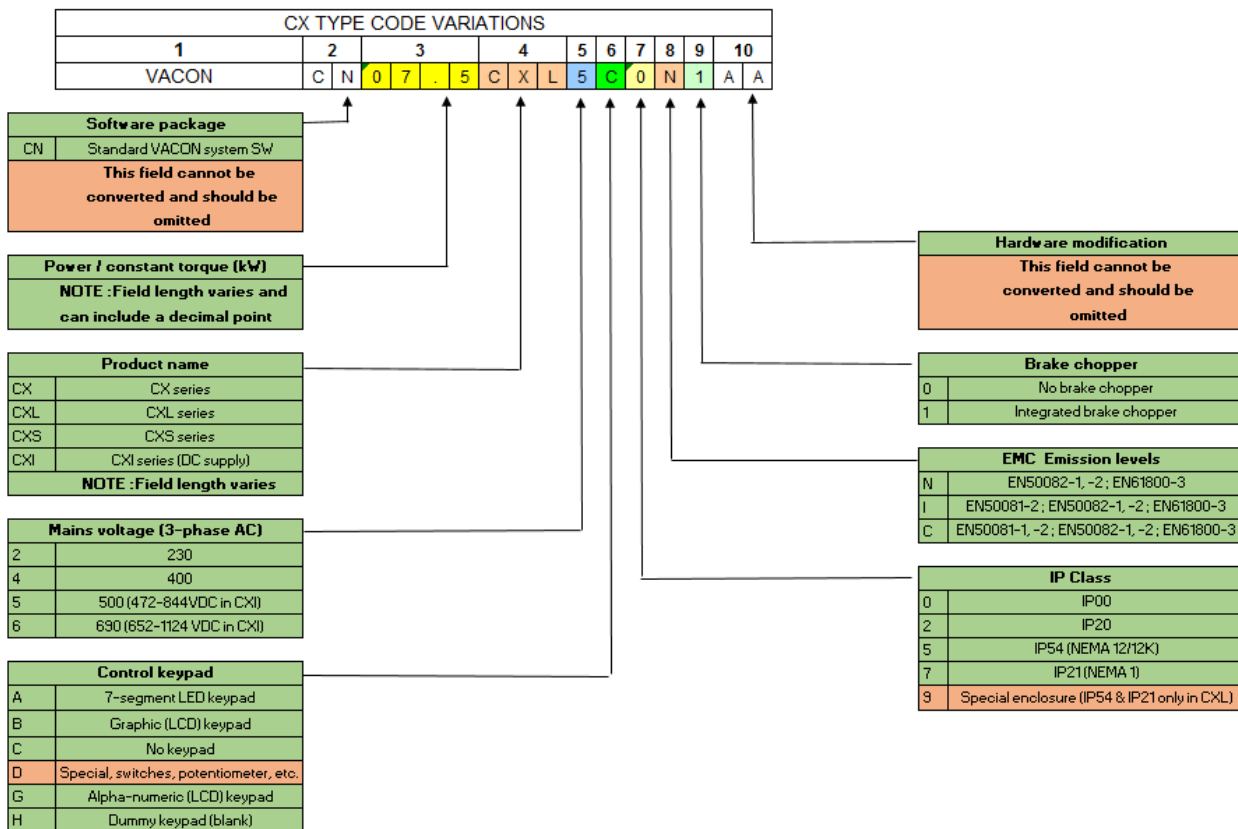


Illustration 7.6 CX family type code descriptions

Table 7.3 shows the VACON® CX to NX conversion. Supply 200 V.

Vacon CX to NX Conversion Table

Note: all CX drives have built-in AC chokes; NX drives have AC chokes built-in only up-to FR9

Supply 200 V

Low Overload Motor power	TYPECODE CONVERSION				DIMENSIONS W x H x D (mm)							
	CX/CXL/CXS		NXS/P		CX		CXL		CXS		NXS/P W x H x D (mm) / Weight (Kg)	
	Power (kW)	Voltage	Current	Voltage								
0,75	0.55 CXS 2		0004	2					120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
1,1	0.75 CXS 2		0007	2					120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
1,5	1.1 CXS 2		0008	2					120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
2,2	1.5 CX/CXL/CXS 2		0011	2	120 x 290 x 215	M4	120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
3	2.2 CX/CXL/CXS 2		0012	2	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	128 x 292 x 190/5	FR4
4	3 CX/CXL/CXS 2		0017	2	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
5,5	4 CX/CXL/CXS 2		0025	2	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
7,5	5.5 CX/CXL/CXS 2		0031	2	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
11	7.5 CX/CXL/CXS 2		0048	2	157 x 405 x 238	M5	157 x 515 x 238	M5	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
15	11 CX/CXL/CXS 2		0061	2	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
18,5	15 CX/CXL/CXS 2		0075	2	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	237 x 591 x 257/35	FR7
22	18.5 CX/CXL 2		0088	2	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
30	22 CX/CXL 2		0114	2	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
37	30 CX/CXL 2		0140	2	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
45	37 CX/CXL 2		0170	2	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
55	45 CX/CXL 2		0205	2	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
75	55 CX/CXL 2		0261	2	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9
90	75 CX/CXL 2		0300	2	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9

Table 7.3 VACON® CX to NX Conversion. Supply 200 V.

Table 7.4 shows the VACON® CX to NX conversion. Supply 400 V.

Vacon CX to NX Conversion Table

Supply 400 V

Low Overload Motor power	TYPECODE CONVERSION				DIMENSIONS W x H x D (mm)							
	CX/CXL/CXS		NXS/P		CX		CXL		CXS		NXS/P W x H x D (mm) / Weight (Kg)	
	Power (kW)	Voltage	Current	Voltage								
1.1	0.75CXL/CXS 4		0003	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
1.5	1.1CXL/CXS 4		0004	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
2.2	1.5CXL/CXS 4		0005	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
3	2.2CX/CXL/CXS 4		0007	5	120 x 290 x 215	M4	120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
4	3CX/CXL/CXS 4		0009	5	120 x 290 x 215	M4	120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
5.5	4CX/CXL/CXS 4		0012	5	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	128 x 292 x 190/5	FR4
7.5	5.5CX/CXL/CXS 4		0016	5	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
11	7.5CX/CXL/CXS 4		0022	5	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
15	11CX/CXL/CXS 4		0031	5	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
18.5	15CX/CXL/CXS 4		0038	5	157 x 405 x 238	M5	157 x 515 x 238	M5	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
22	18.5CX/CXL/CXS 4		0045	5	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
30	22CX/CXL/CXS 4		0061	5	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
37	30CX/CXL 4		0072	5	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
45	37CX/CXL 4		0087	5	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
55	45CX/CXL 4		0105	5	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
75	55CX/CXL 4		0140	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
90	75CX/CXL 4		0168	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
110	90CX/CXL 4		0205	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
132	110CX/CXL 4		0261	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9
160	132CX/CXL 4		0300	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9
200	160CX/CXL 4		0385	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			500 x 1165 x 506/120	FR10
250	200CX/CXL 4		0460	5	700 x 1000 x 390	M9	700 x 1425 x 390	M9			500 x 1165 x 506/120	FR10
315	250CX/CXL 4		0590	5	700 x 1000 x 390	M9	700 x 1425 x 390	M9			709 x 1206 x 506/210	FR11
355	315CX/CXL 4		0650	5	989 x 1000 x 390	M10	989 x 1470 x 390	M10			709 x 1206 x 506/210	FR11
400	315CX/CXL 4		0730	5	989 x 1000 x 390	M10	989 x 1470 x 390	M10			709 x 1206 x 506/210	FR11
450	400CX/CXL 4		0820	5	989 x 1000 x 390	M10	989 x 1470 x 390	M10			2x (500 x 1165 x 506/120)	FR12
500	500CX 4		1030	5	2x(700 x 1000 x 390)	M11					2x (500 x 1165 x 506/120)	FR12
630	630CX 4		1150	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
710	710CX 4		1300	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
800	800CX 4		1450	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
900	900CX 4		1770	5	2x(989 x 1000 x 390)	M12					2x (708 x 1032 x 553/302) *	FR14
1000	1000CX 4		1770	5	2x(989 x 1000 x 390)	M12					2x (708 x 1032 x 553/302) *	FR14
1100	1100CX 4		2150	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) *	FR14
1200	1250CX 4		2150	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) *	FR14
1500	1500CX 4		2700	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) **	FI14

* = Dimensions for Inverter Unit(s) only

** = Dimensions for Inverter Unit(s) only. Drive available as FI14 or AF14 only

Table 7.4 VACON® CX to NX conversion. Supply 400 V.

Table 7.5 shows the VACON® CX to NX conversion. Supply 500 V.

Vacon CX to NX Conversion Table

Supply 500 V

Low Overload Motor power	TYPECODE CONVERSION				DIMENSIONS W x H x D (mm)							
	CX/CXL/CXS		NXS/P		CX		CXL		CXS		NXS/P	
	Power (kW)	Voltage	Current	Voltage	W x H x D (mm) / Weight (Kg)		W x H x D (mm) / Weight (Kg)		W x H x D (mm) / Weight (Kg)		W x H x D (mm) / Weight (Kg)	
1.1	0,75CX/CXL/CXS5		0003	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
1.5	1,1CX/CXL/CXS5		0003	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
2.2	1,5CX/CXL/CXS5		0004	5			120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
3	2,2CX/CXL/CXS5		0005	5	120 x 290 x 215	M4	120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
4	3CX/CXL/CXS5		0007	5	120 x 290 x 215	M4	120 x 390 x 215	M4	120 x 305 x 150	M3B	128 x 292 x 190/5	FR4
5.5	4CX/CXL/CXS5		0009	5	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	128 x 292 x 190/5	FR4
7.5	5,5CX/CXL/CXS5		0016	5	120 x 290 x 215	M4	120 x 390 x 215	M4	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
11	7,5CX/CXL/CXS5		0022	5	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
15	11CX/CXL/CXS5		0031	5	157 x 405 x 238	M5	157 x 515 x 238	M5	135 x 390 x 205	M4B	144 x 391 x 214/8,1	FR5
18.5	15CX/CXL/CXS5		0031	5	157 x 405 x 238	M5	157 x 515 x 238	M5	185 x 550 x 215	M5B	144 x 391 x 214/8,1	FR5
22	18,5CX/CXL/CXS5		0038	5	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
30	22CX/CXL/CXS5		0045	5	220 x 525 x 290	M6	220 x 650 x 290	M6	185 x 550 x 215	M5B	195 x 519 x 237/18,5	FR6
37	30CX/CXL5		0061	5	220 x 525 x 290	M6	220 x 650 x 290	M6			195 x 519 x 237/18,5	FR6
45	37CX/CXL5		0072	5	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
55	45CX/CXL5		0087	5	220 x 525 x 290	M6	220 x 650 x 290	M6			237 x 591 x 257/35	FR7
75	55CX/CXL5		0140	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
90	75CX/CXL5		0140	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
110	90CX/CXL5		0168	5	250 x 800 x 315	M7	374 x 1000 x 330	M7			291 x 758 x 344/58	FR8
132	110CX/CXL5		0205	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			291 x 758 x 344/58	FR8
160	132CX/CXL5		0261	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9
200	160CX/CXL5		0300	5	496 x 890 x 353	M8	496 x 1290 x 353	M8			480 x 1150 x 362/146	FR9
250	200CX/CXL5		0385	5	700 x 1000 x 390	M9	700 x 1425 x 390	M9			500 x 1165 x 506/120	FR10
315	250CX/CXL5		0460	5	700 x 1000 x 390	M9	700 x 1425 x 390	M9			500 x 1165 x 506/120	FR10
400	315CX/CXL5		0590	5	989 x 1000 x 390	M10	989 x 1470 x 390	M10			709 x 1206 x 506/210	FR11
500	400CX/CXL5		0730	5	989 x 1000 x 390	M10	989 x 1470 x 390	M10			709 x 1206 x 506/210	FR11
630	500CX5		0920	5	2x(700 x 1000 x 390)	M11					2x (500 x 1165 x 506/120)	FR12
710	630CX5		1030	5	2x(989 x 1000 x 390)	M12					2x (500 x 1165 x 506/120)	FR12
800	710CX5		1150	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
900	800CX5		1300	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
1000	900CX5		1300	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
1000	1000CX5		1450	5	2x(989 x 1000 x 390)	M12					708 x 1030 x 553/302 *	FR13
1100	1100CX5		1770	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) *	FR14
1200	1250CX5		2150	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) *	FR14
1500	1500CX5		2150	5	3x(989 x 1000 x 390)	M13					2x (708 x 1032 x 553/302) *	FR14

* = Dimensions for Inverter Unit(s) only

Table 7.5 VACON® CX to NX conversion. Supply 500 V.

Table 7.6 shows the VACON® CX to NX conversion. Supply 690 V.

Vacon CX to NX Conversion Table

Supply 690 V

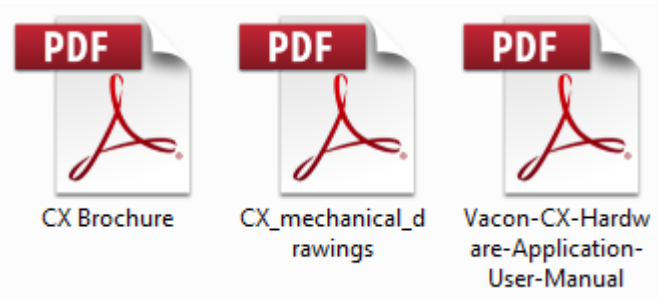
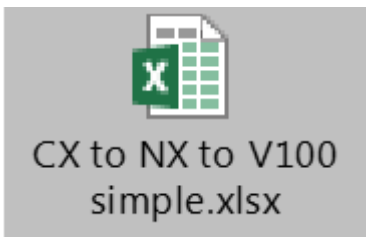
Low Overload Motor power	TYPECODE CONVERSION				DIMENSIONS W x H x D (mm)					
	CX/CXL/CXS		NXS/P		CX	CXL	CXS	NXS/P		
	Power (kW)	Voltage	Current	Voltage				W x H x D (mm) / Weight (Kg)		
3	2,2CX6		0004	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
4	3CX6		0005	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
5.5	4CX6		0007	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
7.5	5,5CX6		0010	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
11	7,5CX6		0013	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
15	11CX6		0018	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
18.5	15CX6		0022	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
22	18,5CX6		0027	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
30	22CX6		0034	6	157 x 405 x 238	M5			195 x 519 x 237/18,5	FR6
37	30CX6		0041	6	220 x 525 x 290	M6			237 x 591 x 257/35	FR7
45	37CX6		0052	6	220 x 525 x 290	M6			237 x 591 x 257/35	FR7
55	45CX6		0062	6	220 x 525 x 290	M6			291 x 758 x 344/58	FR8
75	55CX6		0080	6	220 x 525 x 290	M6			291 x 758 x 344/58	FR8
90	75CX6		0100	6	220 x 525 x 290	M6			291 x 758 x 344/58	FR8
110	90CX6		0125	6	496 x 890 x 353	M8			480 x 1150 x 362/146	FR9
132	110CX6		0144	6	496 x 890 x 353	M8			480 x 1150 x 362/146	FR9
160	132CX6		0170	6	496 x 890 x 353	M8			480 x 1150 x 362/146	FR9
200	160CX6		0208	6	700 x 1000 x 390	M9			480 x 1150 x 362/146	FR9
250	200CX6		0261	6	700 x 1000 x 390	M9			500 x 1165 x 506/120	FR10
315	250CX6		0325	6	989 x 1000 x 390	M10			500 x 1165 x 506/120	FR10
400	315CX6		0416	6	989 x 1000 x 390	M10			500 x 1165 x 506/120	FR10
500	400CX6		0502	6	2x(700 x 1000 x 390)	M11			709 x 1206 x 506/210	FR11
630	500CX6		0650	6	2x(989 x 1000 x 390)	M12			2x (500 x 1165 x 506/120)	FR12
710	630CX6		0750	6	2x(989 x 1000 x 390)	M12			2x (500 x 1165 x 506/120)	FR12
800	710CX6		0820	6	2x(989 x 1000 x 390)	M12			2x (500 x 1165 x 506/120)	FR12
800	800CX6		0820	6	2x(989 x 1000 x 390)	M12			2x (500 x 1165 x 506/120)	FR12
900	900CX6		0920	6	3x(989 x 1000 x 390)	M13			708 x 1030 x 553/302 *	FR13
1000	1000CX6		1030	6	3x(989 x 1000 x 390)	M13			708 x 1030 x 553/302 *	FR13
1100	1100CX6		1180	6	3x(989 x 1000 x 390)	M13			708 x 1030 x 553/302 *	FR13
1250	1250CX6		1500	6	3x(989 x 1000 x 390)	M13			2x (708 x 1032 x 553/302) *	FR14

* = Dimensions for Inverter Unit(s) only

Table 7.6 VACON® CX to NX conversion. Supply 690 V.

Follow the link below to see the excel version of the CX to NX conversion table and further technical information on CX products:

<http://portal.danfoss.net/divisions/PE/sales/GlobalAfterMarketService/Pages/Service-Documents.aspx?RootFolder=%2Fdivisions%2FPE%2Fsales%2FGlobalAfterMarketService%2FService%20Documents%20New%2FDrivePro%20Lifecycle%20Services%2FDrivePro%20Retrofit&FolderCTID=0x01200058CC32D66D05784A83687266F764BA1F&View={1D279D9F-4CB5-4414-A015-7085427601CB}>



7.3 VACON® Brand Quote On-site Audit – Siebel CRM and Summium

To order on-site audit in Summium, go to the DrivePro® services and select the appropriate Retrofit Audit sales code. See *illustration 7.7*.

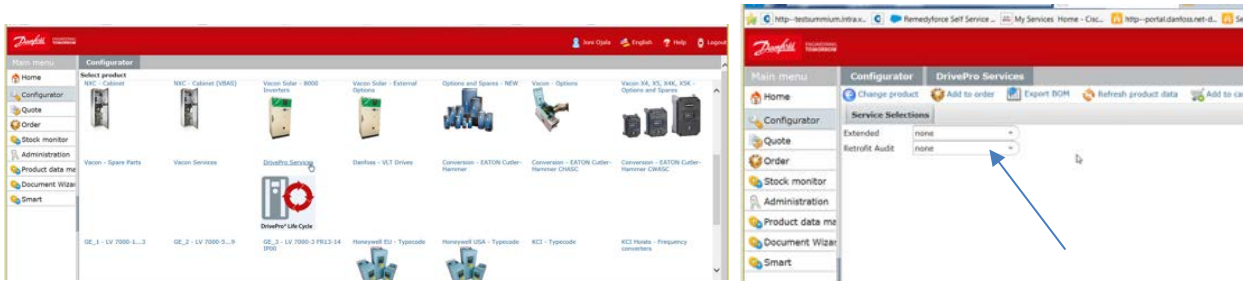


Illustration 7.7 Selecting Retrofit Sales Code

7.3.1 Service Revenue Recognition on VACON® Exchange/Refurbish Unit in Summium

For correct revenue recognitions, the exchange or retrofit unit has to be flagged as shown in *illustrations 7.8* and *7.9*.

In the *Service Option* drop-down list, select the *DrivePro® Exchange* or *DrivePro® Retrofit* option for revenue recognition purposes.

The default value for *Service Option* is *No selection*.

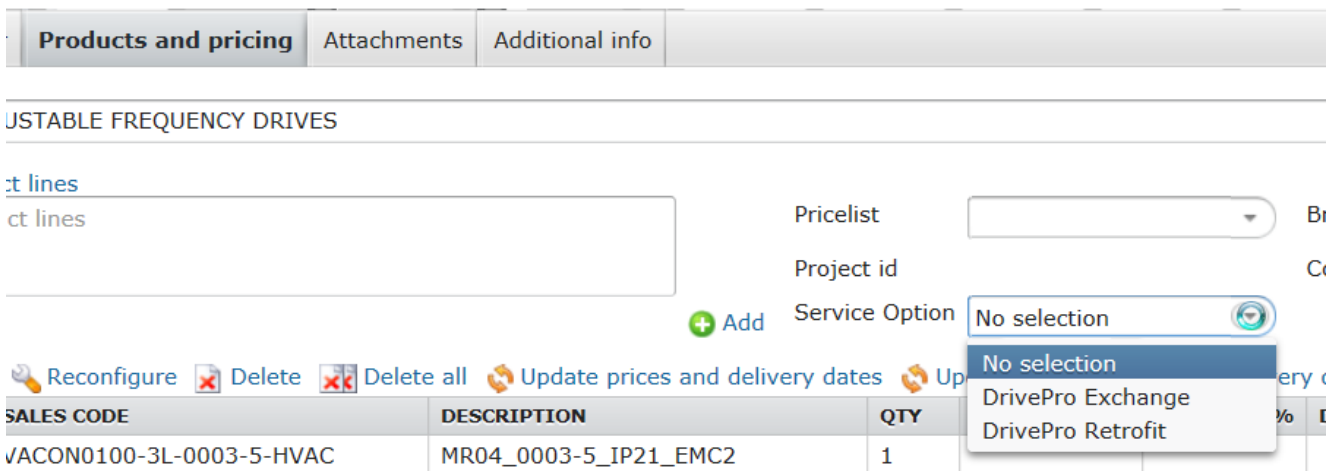


Illustration 7.8 Selecting Service Option

All the drives in the order can be marked as Exchange or Retrofit. See *illustration 7.9*.

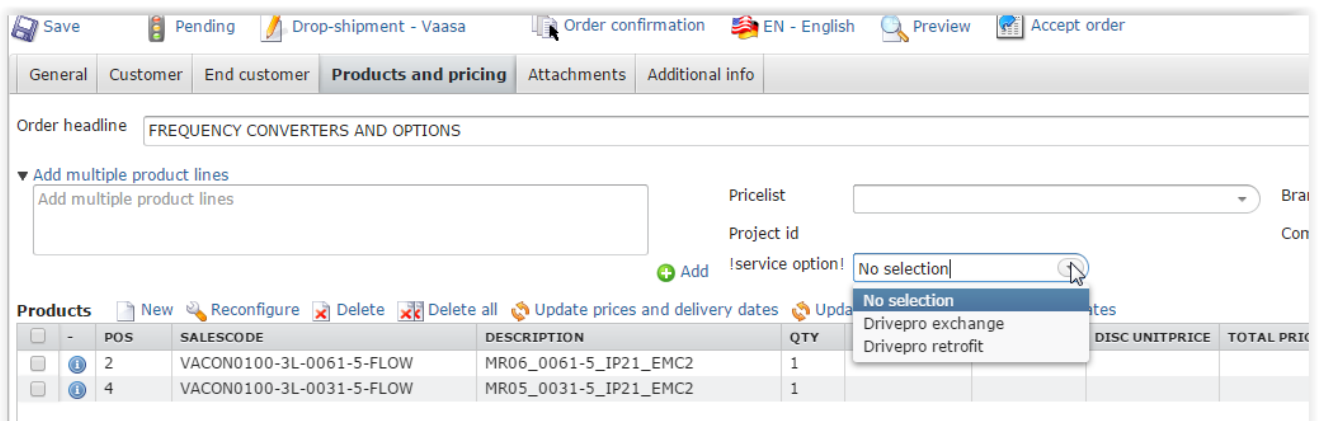


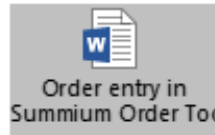
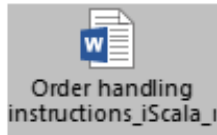
Illustration 7.9 Marking Drives as Exchange or Retrofit

7.4 VACON® Brand Order and Invoicing on-site Audit and Replacement Drive

The ordering and invoicing of on-site audits or replacement drives is the same process as a standard customer order and invoice.

Follow the link below for detailed ordering invoicing instructions in iScala and Summium:

<http://portal.danfoss.net/divisions/PE/sales/GlobalAfterMarketService/Pages/Service-Documents.aspx?RootFolder=%2Fdivisions%2FPE%2Fsales%2FGlobalAfterMarketService%2FService%20Documents%20New%2FDrivePro%20Lifecycle%20Services%2FDrivePro%20Retrofit&FolderCTID=0x01200058CC32D66D05784A83687266F764BA1F&View={1D279D9F-4CB5-4414-A015-7085427601CB}>



7.5 VLT® Brand Quote, Ordering, and Invoicing On-site Audit

The on-site audit can only be quoted in PO8 manually using DrivePro® Retrofit audit service sales codes.

The Retrofit audit is not available for ordering in the VLT Shop only by customer request. Invoicing is done in P08 using service sales codes.

7.6 VLT® brand Quote, Ordering, and Invoicing Replacement Drive

Quoting is the same as any hardware product in PO8. It is possible to copy the sales codes from the VLT® Shop Retrofit conversion tool and past the product sales code in PO8.

See section 7.2 Search Tool - Retrofit Conversion Tool and Drive Configurator VLT® Shop for instructions on how to search and order in the VLT® Shop. Retrofit recognition is set automatically when placing the order through the VLT® Shop from the converter tool.

Invoicing is automated from the VLT® Shop. An order is automatically created in SAP PO8 and if the content is available for delivery and invoicing, it is handled in SAP PO8.

To order a replacement drive in PO8, copy/paste the product sales code from the conversion tool into the standard order in PO8.

NOTICE

In the Usage field in PO8, order for the correct revenue recognitions. Select the exchange or retrofit unit shown in illustration 7.10.

Screen: Create Sales Order: Initial Screen

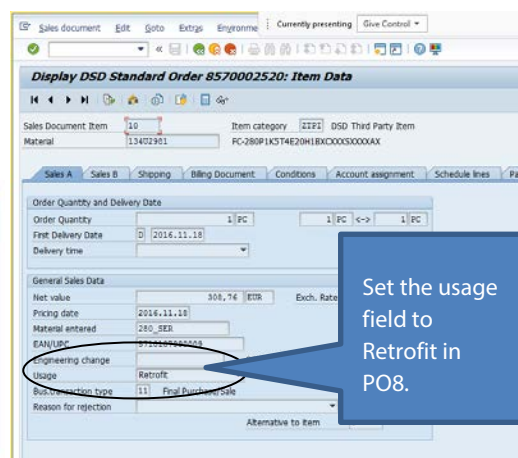
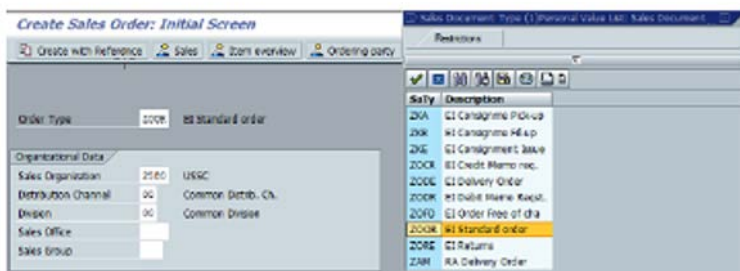


Illustration 7.10 Selecting the Usage in PO8 the initial sales order

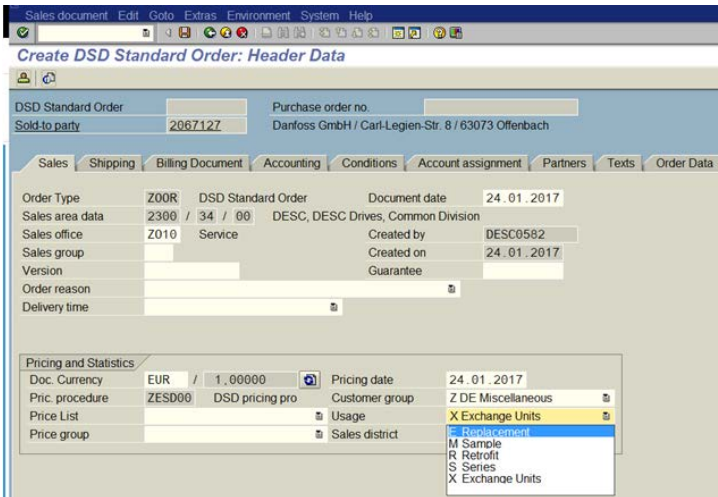


Illustration 7.11 Selecting the service option in the drop-down list.

Manual invoicing in PO8 is the same procedure as with any hardware product. See illustration 7.12 for an example.

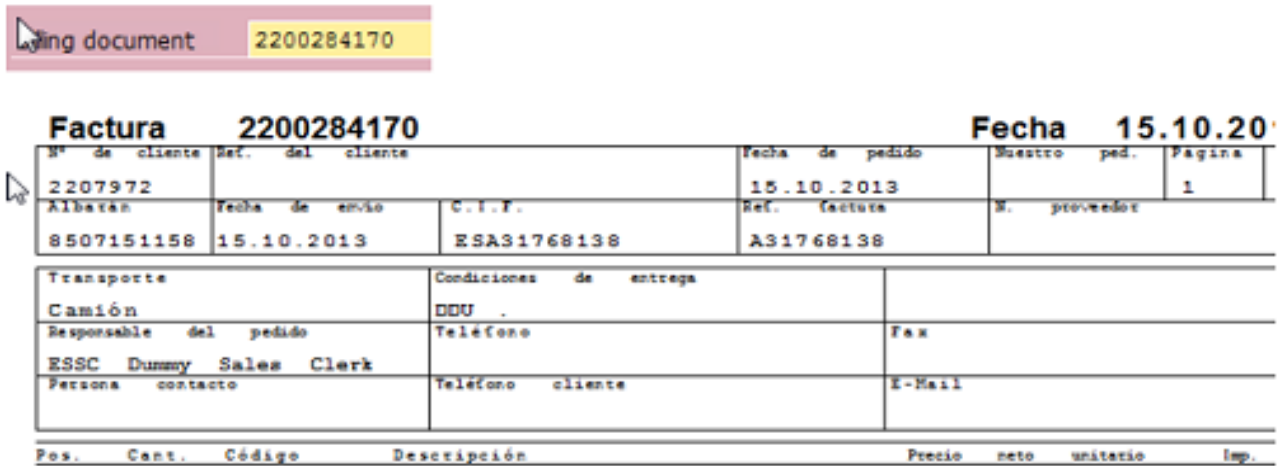


Illustration 7.12 of manual invoicing

8 Service Delivery DrivePro® Retrofit Audit

8.1 Description

The DrivePro® Retrofit Audit is an optional fee-paid service with attention to detail to identify specific opportunities that can save energy, improve technology, reduce maintenance cost and/or increase operational efficiency by recommending retrofitting to a new drive.

The purpose of the audit planning is to ensure optimal uptime and productivity during the replacement process. This is done via a customized implementation plan for the installation of one or more new products.

When a customer decides to replace a drive near the end of life cycle; either a high-power standard drive, premium drive, cabinet drive, or drive system, the customer may require more information to ensure a match to existing drive application or need for more power availability.

When a customer in the Food & Beverage industry decides to replace compact drives near the end of life cycle, 1 facility could contain hundreds of installed drives and would require careful planning for a smooth replacement schedule.

DrivePro® Retrofit Audit is part of the front-end sales process however invoiced separately as service.

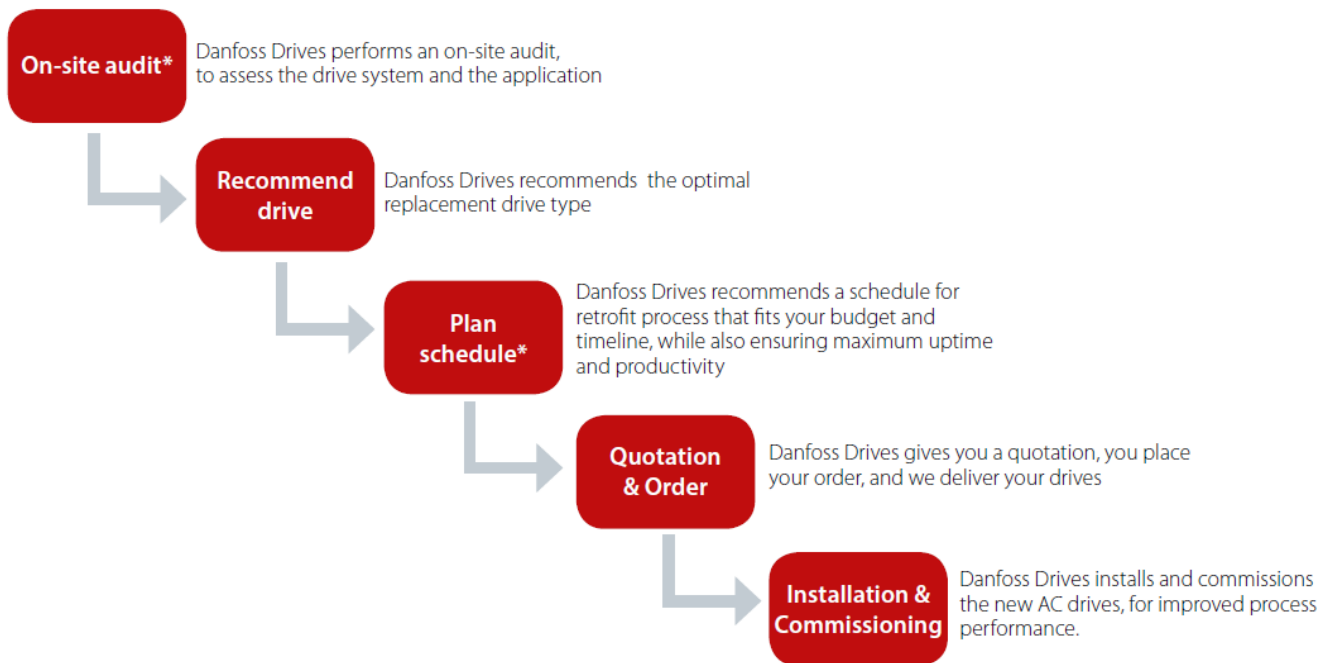


Illustration 8.1 DrivePro® Retrofit Audit and Service Delivery.

*Optional fee paid service

8.2 Retrofit Audit Checklist and Reporting

Only Danfoss certified personnel complete the Danfoss Audit with the appropriate information based on the requirements requested from the customer or Danfoss sales. With this information, Danfoss is able to propose a replacement drive to the customer, which meets the specified goals.

8.2.1 Audit Checklist

Depending on the drive type and site location, not all audits are the same. Therefore, only report the relevant information.

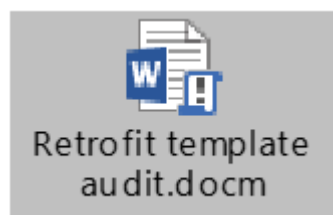
Save all gathered data from the audit. The Retrofit checklist document can be used for reporting data for the DrivePro® Retrofit audit service for both VLT® and VACON® products. Gather as much information as possible and take as many photos as required to ensure a good visualization of the installation and environment.

The auditor should assess the following:

- Mainline power quality issues.
- Conduit entry.
- Environment and temperature.
- Clearances.
- Vibrations.
- Mounting surfaces.
- Cooling.
- Harmonic filter.
- EMI.
- LC filter.
- Motor(s).
- Dimensioning.
- Photos.

Use the following link to download the Retrofit on-site audit template:

<http://portal.danfoss.net/divisions/PE/sales/GlobalAfterMarketService/Pages/Service-Documents.aspx?RootFolder=%2Fdivisions%2FPE%2Fsales%2FGlobalAfterMarketService%2FService%20Documents%20New%2FDrivePro%20Lifecycle%20Services%2FDrivePro%20Retrofit&FolderCTID=0x01200058CC32D66D05784A83687266F764BA1F&View={1D279D9F-4CB5-4414-A015-7085427601CB}>



Additional data information to be saved is listed below. If the inspection of the following was not possible, note down the reasons:

- Check if the type code corresponds to the drive (there could be additional options).
- Check that the product was suitable for the customers' process and includes all factory options.
- Check if there is an indication of bad environment conditions, condensation (rust, watermarks, and so on), dust, or high/low ambient temperatures.
- Check if the installation was according to recommendation.
- Save parameter files.
- Drive properties – related power module.
- Data logger files and alarm faults history.
- Software and application revision.
- Photograph control and customer wiring diagrams if possible.
- Correct size of the supply cable(s).
- Correct size of the motor cable(s).
- Symmetrical shielded motor cable(s) is used.
- Grounding of the supply cable.
- Grounding of the product.
- Grounding of the motor cable.
- Measure length of supply and motor cable in cabinet.
- Measure clearance space around the product.
- Check for ventilation restrictions.
- Cooling.
- Mounting surfaces.
- Vibrations.

8.2.2 Reporting and Site Visit

Create a report based on the information from the audit, pictures of any issues identified, and recommendations. If sales orders the audit, send the report to sales and invoice sales.

If the customer PO orders the audit, send the report to a capable resource for dimensioning drive replacement and invoice the customer when the report is delivered to the customer with the recommended replacement.

Helpful tips for site visits:

- Contact the customer to discuss what the goal of the survey is: For example energy efficiency, operational improvement, or new Technology.
- Schedule a site visit with appropriate personnel, for example plant or maintenance manager.
- On arrival, take a picture of the site building with the company logo - This is used for the front page of the report.
- Check in with management, explain the on-site tasks of the day, and inform them that pictures are taken if needed. Leave your cell phone number so the customer can reach you while on site.
- Complete and save the audit survey forms.
- When doing any work on site, ensure that you are not in the way of production.
- Follow all safety and customer-specific procedures while on site.
- If leaving for lunch, inform the managers so they know that you are gone.
- At the end of a day, review and notify management that you have finished, document time and whom you spoke with.

8.3 Service Product Support

The Global Service Organization and service functions are described in Standard 501G2015. The service organization including the service set-up, escalation process, and operational model with roles and responsibilities is defined in this standard.

The service support escalation process describes what to do if a service case has to be escalated to the next level. The target is to solve as many service cases as possible close to the customer and with short response times. This requires good coverage of competent service personnel and spare parts. However, sometimes support is needed. Depending on the service case and the required type of support, the case has to be either escalated to the next level according to the service organization structure in illustration 8.1, or transferred horizontally inside the same layer to a service provider with the right expertise and/or spare parts to support.

It is always preferable to solve the case inside the same layer or region but if it is not possible then the case is escalated to the next level. Each level of the service organization needs to have a clearly defined process for handling and processing escalated cases. This means that each level needs to have a defined entry point for the different cases. The entry point can be the contact details for a service person, an interface to an IT-tool, a web portal, or similar.

The process of handling the escalated case defines how to communicate the actions and status back to the level that escalated the case. The level that escalated the case must be able to follow up on the case and get information regarding the status and actions that needs to be taken.

Global AMS will secure that local service center and partner competence is on the right level. AMS competence center supports local service centers in all matters where local competence is not sufficient.

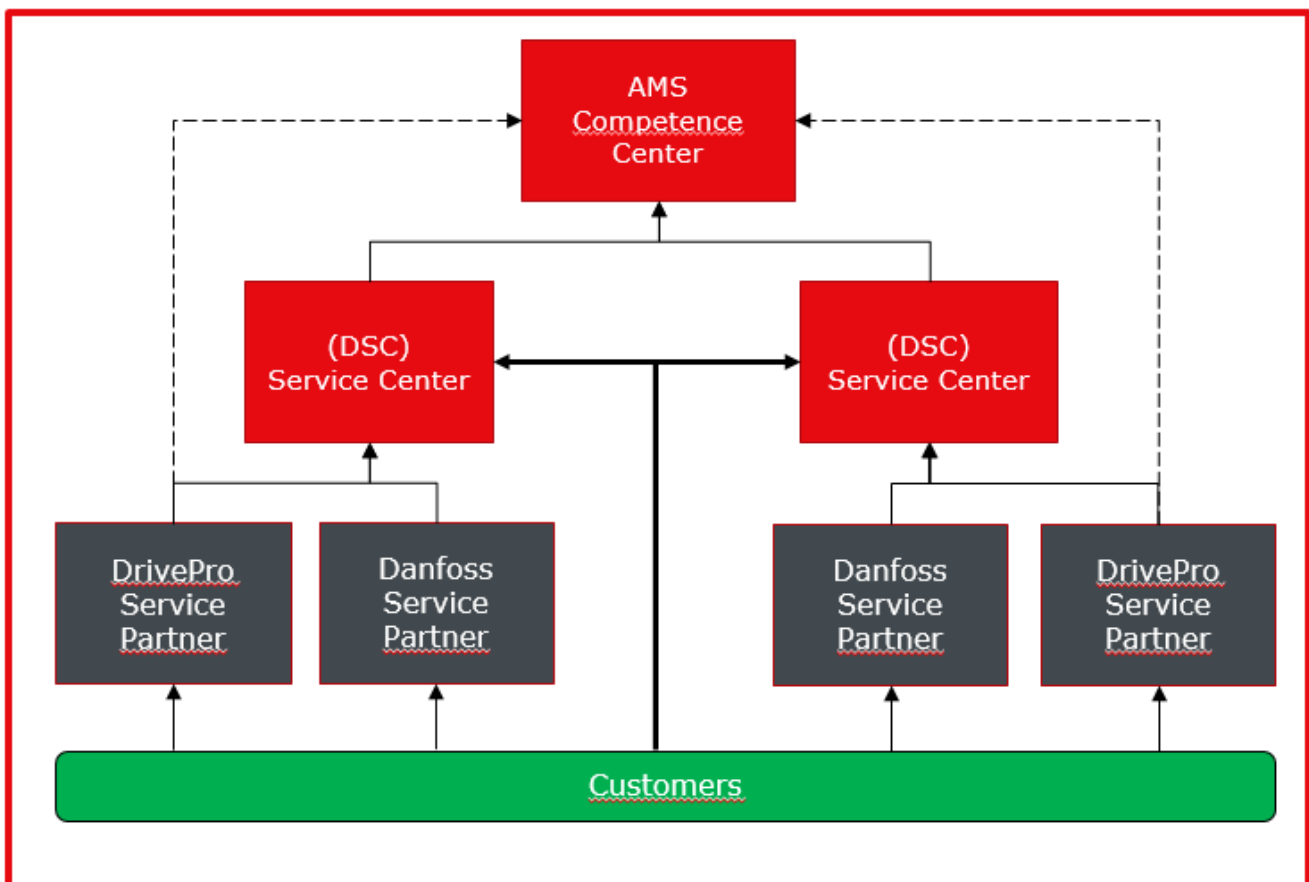


Illustration 8.2 DDS Service Organization

8.4 Service Product Support Escalation Process

See Global Service standard 501G0019 and 501G2015 for hierarchy roles and responsibilities, on how to escalate.

NOTICE

The escalation processes for hardware products and DrivePro® Service Products are the same.

8.5 Warranty

For warranty information, see the latest revision of Corporate Standard 500B0144 for Danfoss GTC of Sale for VLT® and VACON® brands.

9 Authorized Service Center

Regional service managers are responsible for ensuring that the Service Centers contact information on the Danfoss Global and local websites contain accurate contact information.

The local website is found via the following link: <http://drives.danfoss.com/danfoss-drives/local-contacts/>

Danfoss partners and service partners change from time to time, and the accurate contact information for fast responsive service to our customers is important. Customers are global, and cross-border cases needs warranty claim service easy and fast.

The regional service manager must provide accurate contact information, and these instructions are included in the training documentation.

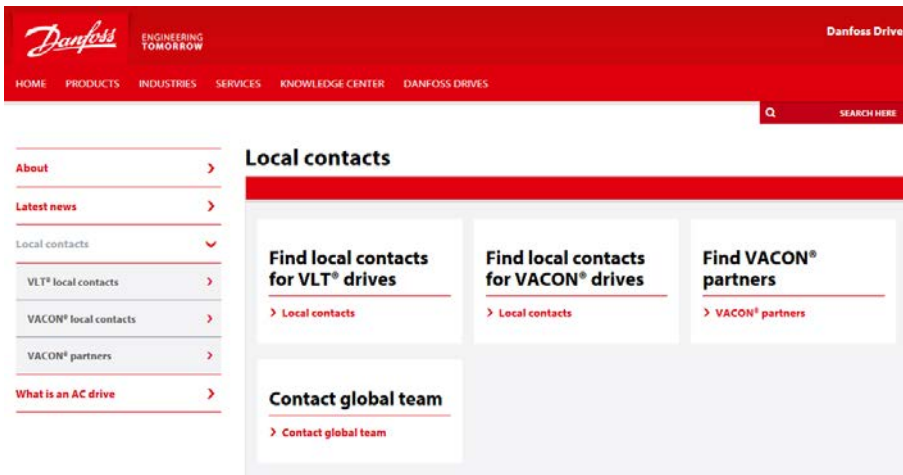


Illustration 9.1 Example of Local Danfoss website

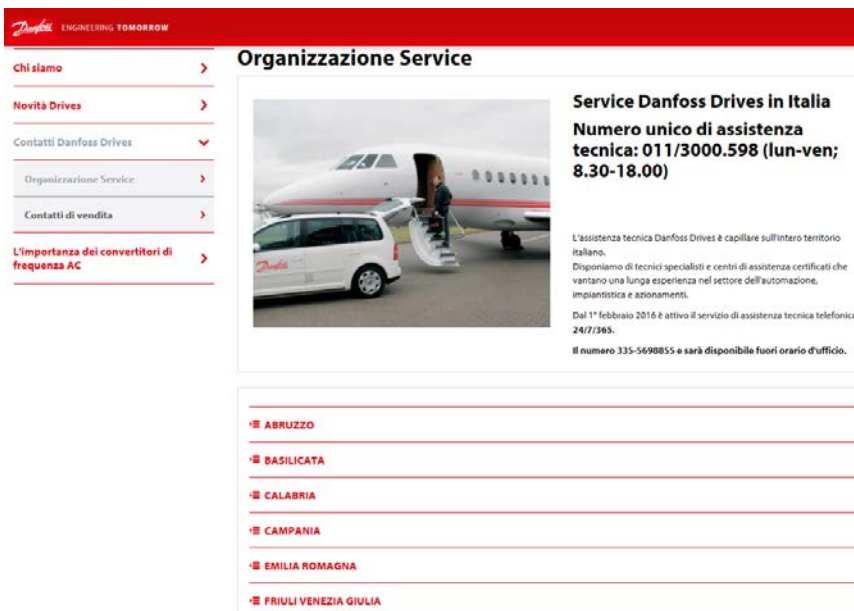


Illustration 9.2 Example of Local Danfoss Website

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