

**136L1287****MSD510SDM511SAF1C020AD6E20FRXPNSXXTXXXXX**

VLT® Multiaxis Servo Drive MSD
 MSD 510 Servo Drive Module 511
 Single Axis Servo Drive, Frame Size 1 50 mm
 (020A) 20 A RMS rated current
 600 V DC Link Voltage, IP20
 Resolver
 PROFINET, Standard
 Safe Torque Off

Model code: MSD510SDM511SAF1C020AD6E20FRXPNSXXTXXXXX

The VLT® Multiaxis Servo Drive MSD 510 system is a generic central servo solution and the fundamental part of the Danfoss FlexMotion™ concept. The servo system comprises a Power Supply Module (PSM 510), Servo Drive Modules (SDM 511, SDM 512), Decentral Access Module (DAM 510), an Auxiliary Capacitors Module (ACM 510) and an Expansion Module (EXM 510). Its flexibility and modularity in hardware and software gives the freedom to design or engineer machines according to the application needs.

To optimize the space requirements, some modules are available in two enclosure sizes, 50 mm and 100 mm width. The unique “Click and Lock” concept, where DC link and control voltage supply are integrated in the backplate of each module, enable easy mounting and failsafe installation. Depending on the machine architecture, the MSD 510 can be used as a standalone central concept or in a mixed system, together with the VLT® Integrated Servo Drive ISD® 510 and VLT® Decentral Servo Drive DSD 510. Extensions or adjustments to the machine are easy to implement– just add or swap modules accordingly.

NOTE: You need to order additional components for setting up your complete MSD system:

- VLT® Power Supply Module PSM 510 to power the system Order no:
 175G0160 10kW, 175G0163 20kW, 175G0166 30kW, POWERLINK
 175G0161 10kW, 175G0164 20kW, 175G0167 30kW, EtherCAT
 175G0162 10kW, 175G0165 20kW, 175G0168 30kW, PROFINET

It is mandatory to use a 3-phase AC line choke close to the PSM 510. Order no:
 175G0179 10kW, 175G0178 30kW, 175G0192 20 kW

- VLT® Decentral Access Module DAM 510 to connect the ISDs and DSDs to the system when used. Order no:
 175G0169 15A, 175G0172 25A, POWERLINK
 175G0170 15A, 175G0173 25A, EtherCAT
 175G0171 15A, 175G0174 25A, PROFINET

VLT® Auxiliary Capacitors Module ACM 510 to store energy Order no:
 175G0175 POWERLINK
 175G0176 EtherCAT
 175G0177 PROFINET

VLT® Expansion Module EXM 510 to split the system into two cabinets.

- Hybrid loop cables available in different length to connect the ISD and DSD drives among each other
- Hybrid feed-in cables available in different length to connect the first ISD

or DSD drive to the DAM 510

- LCP cable to connect the LCP to the advanced servo drive or MSD modules

PRODUCT DETAILS

Gross weight		7 Kilogram
Net weight		6.4 Kilogram
Volume		24.168 Cubic decimeter
EAN		5710108778484
Product View (Switch)	GLBL	Global (Standard)
Product Group	MSD510	VLT® Multiaxis Servo Drive MSD
Product Variant	SDM511	MSD 510 Servo Drive Module 511
Drive Variant	SA	Single Axis Servo Drive
Frame Size	F1	Frame Size 1 50 mm
Current Rating	C020A	(020A) 20 A RMS rated current
DC Voltage	D6	600 V DC Link Voltage
Drive Enclosure	E20	IP20
Drive Feedback	FRX	Resolver
Bus System	PN	PROFINET
Firmware	SXX	Standard
Safety	T	Safe Torque Off
Reserved A	XXX	reserved
Reserved B	XX	reserved
Product Catalog	NO_VIEW	NO VIEW
Typecode Part 2		PNSXXTXXXXX
Modelcode01		MSD510SDM511SAF1C020AD6E20FRX
Modelcode02		PNSXXTXXXXX
Vendor	ERR01	Cannot Determine Vendor
Recommended Factory	ERR01	Cannot Determine Vendor
Calculated Gross Weight [kg]		4.4
Calculated Net Weight [kg]		3.9
Recommended Plant	ERR01	ERR01
ECCN EU	Y901	Y901
ECCN US	3A999.a	3A999.a
Typecode Part 1		MSD510SDM511SAF1C020AD6E20FRX

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

Accessories

Image
coming
soon

175G0178 [🔗](#)

3 Phase Line Reactor 63A

3 Phase Line Reactor 63 A

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

Danfoss can accept no responsibility for possible errors in catalogs, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without sub-sequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Accessories



175G0171 [🔗](#)
VLT® Decentral Access Module, 15A, PN
MSD510DAM510F1C015AD6E20PNSXXXXXXXXXXXXX



175G8942 [🔗](#)
LCP Cable (D-Sub to M8)
The LCP Cable connects the LCP to the advanced ISD 510/ DSD 510 decentral servo drives and MSD 510 modules via an M8 connector.



175G0160 [🔗](#)
VLT® Power Supply Module, 10kW, PL
MSD510PSM510F2P10C0D6E20PLSXXXXXXXXXXXXX



175G0161 [🔗](#)
VLT® Power Supply Module, 10kW, EC
MSD510PSM510F2P10C0D6E20ECSXXXXXXXXXXXXX



175G0163 [🔗](#)
VLT® Power Supply Module, 20kW, PL
MSD510PSM510F2P20C0D6E20PLSXXXXXXXXXXXXX



175G0164 [🔗](#)
VLT® Power Supply Module, 20kW, EC
MSD510PSM510F2P20C0D6E20ECSXXXXXXXXXXXXX



175G0166 [🔗](#)
VLT® Power Supply Module, 30kW, PL
MSD510PSM510F2P30C0D6E20PLSXXXXXXXXXXXXX



175G0167 [🔗](#)
VLT® Power Supply Module, 30kW, EC
MSD510PSM510F2P30C0D6E20ECSXXXXXXXXXXXXX



175G0168 [🔗](#)
VLT® Power Supply Module, 30kW, PN
MSD510PSM510F2P30C0D6E20PNSXXXXXXXXXXXXX

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

Danfoss can accept no responsibility for possible errors in catalogs, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without sub-sequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Accessories



175G0169 [🔗](#)

VLT® Decentral Access Module, 15A, PL

The Decentral Access Module DAM 510 is a central interface to the decentral servo system. It is used to connect ISD 510 and DSD 510 to the servo system via a hybrid feed-in cable. The DAM 510 supplies the decentral servo drives with DC-link, UAUX, STO and the Ethernet-based fieldbus via the hybrid cable. The DAM 510 provides functions such as:

- Overcurrent protection of the hybrid cable
 - Overvoltage protection
 - Charging circuit of the DC-link
- DC-link voltage: 565-680 +/-10%
 Output current DC-link: 15A
 Bus system: POWERLINK
 Protection rating: IP20



175G0170 [🔗](#)

VLT® Decentral Access Module, 15A, EC

MSD510DAM510F1C015AD6E20ECSXXXXXXXXXXXXXX



175G0172 [🔗](#)

VLT® Decentral Access Module, 25A, PL

MSD510DAM510F1C025AD6E20PLSXXXXXXXXXXXXXX



175G0174 [🔗](#)

VLT® Decentral Access Module, 25A, PN

MSD510DAM510F1C025AD6E20PNSXXXXXXXXXXXXXX



175G0173 [🔗](#)

VLT® Decentral Access Module, 25A, EC

The Decentral Access Module DAM 510 is a central interface to the decentral servo system. It is used to connect ISD 510 and DSD 510 to the servo system via a hybrid feed in cable. The DAM 510 supplies the decentral servo drives with DC-link, UAUX, STO and the Ethernet-based fieldbus via the hybrid cable. The DAM 510 provides functions such as:

- Overcurrent protection of the hybrid cable
 - Overvoltage protection
 - Charging circuit of the DC-link
- DC-link voltage: 565-680 +/-10%
 Output current DC-link: 25A
 Bus system: EtherCAT
 Protection rating: IP20



175G0162 [🔗](#)

VLT® Power Supply Module, 10kW, PN

MSD510PSM510F2P10C0D6E20PNSXXXXXXXXXXXXXX

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

Danfoss can accept no responsibility for possible errors in catalogs, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without sub-sequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Accessories



175G0165 [🔗](#)
VLT® Power Supply Module, 20kW, PN
 MSD510PSM510F2P20C0D6E20PNSXXXXXXXXXXXXXX

Image coming soon

175G0192 [🔗](#)
3 Phase Line Reactor 40A
 3 Phase Line Reactor 40 A

Image coming soon

175G0179 [🔗](#)
3 Phase Line Reactor 20A
 3 Phase Line Reactor 20 A



175G0194 [🔗](#)
VLT® Expansion Module
 MSD510EXM510F1C062AD6E20XXXXXXXXXXXXXX

Image coming soon

175G0299 [🔗](#)
3 Phase Line Reactor 125A

Image coming soon

175G8892 [🔗](#)
VLT® Power Supply Module, 30kW, PNK01
 MSD510PSM510F2P30C0D6E20PNK01XXXXXXXXXXXX

Image coming soon

175G8893 [🔗](#)
VLT® Decentral Access Module 25A, PNK01
 MSD510DAM510F1C025AD6E20PNK01XXXXXXXXXXXX

Image coming soon

172G8958 [🔗](#)
VLT® Power Supply Module, 10kW, PLS03
 MSD510PSM510F2P10C0D6E20PLS03XXXXXXXXXXXX

Image coming soon

172G8959 [🔗](#)
VLT® Decentral Access Module, 15A, PLS03
 MSD510DAM510F1C015AD6E20PLS03XXXXXXXXXXXX

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

Danfoss can accept no responsibility for possible errors in catalogs, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without sub-sequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.