

# FSPC.E70524 - Energy and Industrial Systems Certified for Functional Safety

## Energy and Industrial Systems Certified for Functional Safety

See General Information for Energy and Industrial Systems Certified for Functional Safety.

**DANFOSS L L C**

E70524

4401 N Bell School Rd  
Loves Park, IL 61111-5600 USA

Listed products investigated to EN ISO/ISO 13849-1 (2015)

Model No.	Safety Function	Safety Rating	SFF	PFH	HFT	Beta Factor	PFD <sub>avg</sub>	MTTF <sub>d</sub>	Diagnostic Coverage	Category	CCF
<b>Adjustable Speed Drives "VLT Series"</b>											
<b>ADS102, IR-302, IRV302, AKD102, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, CAR102, LB-302, AF-600, AF-650, TR-200, TRV200 and WI-EFC Series</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-102NXXXXTXXXXPX series, FC-202NXXXXTXXXXPX series, FC-302NXXXXTXXXXPX series and FC-322NXXXXTXXXXPX series, where P is identified for VLT parallel drive Modules</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-302 series, FC-102 Series, FC-202 Series, FC-322 Series, ADS102, IR302, IRV302, AKD102, FC-103, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, TRV200, WI-EFC, CAR102 and DTC302 Series</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-BDMNXXXXTXXXXHX series where BDM identifies base drive models</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-

Listed products investigated to EN/IEC 61508, Parts 1 - 7 (2010)

Model No.	Safety Function	Safety Rating	SFF	PFH	HFT	Beta Factor	PFD <sub>avg</sub>	MTTF <sub>d</sub>	Diagnostic Coverage	Category	CCF
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FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

	Safe torque off (STO)	SIL 2	-	-	-	-	-	-	-	-	-
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**FC-BDMNXXXTXXXXHX series where BDM identifies base drive models**

	Safe torque off (STO)	SIL 2	-	-	-	-	-	-	-	-	-
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Listed products investigated to EN/IEC 62061 (2015)

Model No.	Safety Function	Safety Rating	SFF	PFH	HFT	Beta Factor	PFD <sub>avg</sub>	MTTF <sub>d</sub>	Diagnostic Coverage	Category	CCF
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**Adjustable Speed Drives "VLT Series"**

**ADS102, IR-302, IRV302, AKD102, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, CAR102, LB-302, AF-600, AF-650, TR-200, TRV200 and WI-EFC Series**

	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
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**FC-102NXXXTXXXXPX series, FC-202NXXXTXXXXPX series, FC-302NXXXTXXXXPX series and FC-322NXXXTXXXXPX series, where P is identified for VLT parallel drive Modules**

	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
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**FC-302 series, FC-102 Series, FC-202 Series, FC-322 Series, ADS102, IR302, IRV302, AKD102, FC-103, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, TRV200, WI-EFC, CAR102 and DTC302 Series**

	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
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FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
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**FC-BDMNXXXTXXXXHX series where BDM identifies base drive models**

	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
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# FSPC7.E70524 - Energy and Industrial Systems Certified for Functional Safety Certified for Canada

## Energy and Industrial Systems Certified for Functional Safety Certified for Canada

[See General Information for Energy and Industrial Systems Certified for Functional Safety Certified for Canada](#)

**DANFOSS L L C**

E70524

4401 N Bell School Rd  
Loves Park, IL 61111-5600 USA

Listed products investigated to EN ISO/ISO 13849-1 (2015)

Model No.	Safety Function	Safety Rating		Beta			Diagnostic			Category	CCF
		SFF	PFH	HFT	Factor	PFD <sub>avg</sub>	MTTF <sub>d</sub>	Coverage			
<b>Adjustable Speed Drives "VLT Series"</b>											
<b>ADS102, IR-302, IRV302, AKD102, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, CAR102, LB-302, AF-600, AF-650, TR-200, TRV200 and WI-EFC Series</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-102NXXXXTXXXXPX series, FC-202NXXXXTXXXXPX series, FC-302NXXXXTXXXXPX series and FC-322NXXXXTXXXXPX series, where P is identified for VLT parallel drive Modules</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-302 series, FC-102 Series, FC-202 Series, FC-322 Series, ADS102, IR302, IRV302, AKD102, FC-103, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, TRV200, WI-EFC, CAR102 and DTC302 Series</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-
<b>FC-BDMNXXXXTXXXXHX series where BDM identifies base drive models</b>											
	Safe torque off (STO)	PL d	-	-	-	-	-	-	-	Category 3	-

Listed products investigated to EN/IEC 61508, Parts 1 - 7 (2010)



FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

	Safe torque off (STO)	SIL 2	-	-	-	-	-	-	-	-	-
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**FC-BDMNXXXTXXXXHX series where BDM identifies base drive models**

	Safe torque off (STO)	SIL 2	-	-	-	-	-	-	-	-	-
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**Listed products investigated to EN/IEC 62061 (2015)**

Model No.	Safety Function	Safety Rating	SFF	PFH	HFT	Beta Factor	PFD <sub>avg</sub>	MTTF <sub>d</sub>	Diagnostic Coverage	Category	CCF
<b>Adjustable Speed Drives "VLT Series"</b>											
<b>ADS102, IR-302, IRV302, AKD102, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, CAR102, LB-302, AF-600, AF-650, TR-200, TRV200 and WI-EFC Series</b>											
	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
<b>FC-102NXXXTXXXXPX series, FC-202NXXXTXXXXPX series, FC-302NXXXTXXXXPX series and FC-322NXXXTXXXXPX series, where P is identified for VLT parallel drive Modules</b>											
	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
<b>FC-302 series, FC-102 Series, FC-202 Series, FC-322 Series, ADS102, IR302, IRV302, AKD102, FC-103, CUE202, IVS102, DV-302, 3G3DV, ITT102, IPC102, KSB202, TRV200, WI-EFC, CAR102 and DTC302 Series</b>											
	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
<b>FC-302, IR-302, IRV302, CD-302, MWU302, CDS302, DV-302, LB-302, AF-650, FCK302, XAC302, TRV200, CDS303, DTC302, FC-202, CUE202, FC-322, CU-331, KSB202, PNR202, FC-102, AF-600, AKD102, FC-103, ADS102, IVS102, IPC102, CAR102, or TR-200, followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.</b>											
	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-
<b>FC-BDMNXXXTXXXXHX series where BDM identifies base drive models</b>											
	Safe torque off (STO)	SIL cl 2	-	-	-	-	-	-	-	-	-

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# NMMS.E70524 - Power Conversion Equipment

## Power Conversion Equipment

[See General Information for Power Conversion Equipment](#)

### DANFOSS L L C

4401 N Bell School Rd  
Loves Park, IL 61111-5600 USA

E70524

Trademark and/or Tradename: "E70524", "VLT", "www.danfoss.com",



## Investigated to ANSI/UL 508C

**3R conversion kits (optional)** Model(s) 0296, 0298, 1749, 176F0295, 1771, 4600, 4601

**3R Cover Kit for E5S Enclosure (Optional)** Model(s) 176F3691, 176F5744, 6302 (D1), 6303 (D2)

**AC motor controllers** Model(s) 1772, 3G3DV, 3G3DV, ADS102, AF-600, AF-650, AKD102, AKD102, CAR102, CAR102, CAR102, CD302, CDS302, CUE202, CUE202, CUE203, CUE203, CUE203, DAA102, dsa, DV-302, DV-302, DV302, E94 followed by ASHE, ASPE, ASSE, or ASTE(+), FC 103 Series, FC-102 Series, FC-103, FC-103, FC-202 Series, FC-302 Series, FC-322 Series, IPC102, IR-302, IR302, IRV302, IRV302, ITT102, ITT102, IVS102, IVS102, KSB202, KSB202, LB-302, LD302, MWU302, TR-200, TRV200, TRV200, TRV200, WI-EFC, WI-EFC, WI-EFC Series, XAC302

**AC Motor controllers, Base Drive** Model(s) FC-BDMNXXXXXXXHX series

**AC Motor controllers, VLT Parallel Drive Modules** Model(s) FC-102NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-202NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-302NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-322NXXXXXXXPX where P is identified for VLT parallel drive modules.

**Accessory Back Wall Cooling Duct Kit (Optional)**, Model(s) 176F6482 (D1n), 176F6481 (D2n)

**Accessory Cooling Kits** Model(s) 176F3678 (D3), 176F3679 (D4), 176F3680 (D3), 176F3681 (D4), 176F3682 (D3), 176F3683 (D4), 176F3684 (D3), 176F3685 (D4), 176F3686 (D3), 176F3687 (D4), 176F5726 (D3), 176F5727 (D4)

**Accessory Pedestal Options** Model(s) 176F3452 (D5, D6), 176F3539 (D7, D8)

**Accessory Enclosed Advanced Active Filter** Model(s) A190, A250, A310, A400

**Cooling Kit with Extended Options (optional)** Model(s) 176F3530 (D1), 176F3531 (D2)

**Cooling Kit with Pedestal (optional)** Model(s) 176F3532 (D1), 176F3533 (D2)

**Cooling kits (optional)** Model(s) 176F3519 (D3), 176F3520 (D3), 176F3522 (D1,D3), 176F3523 (D1,D3), 176F3524 (D4), 176F3525 (D4), 176F3527 (D2,D4), 176F3528 (D2,D4), 176F3625 (D3), 176F3626 (D4), 176F3648 (D1), 176F3649 (D2), 176F3654 (D3), 176F3655 (D4), 176F3656 (D1), 176F3657 (D2)

**Cooling kits 3R (optional)** Model(s) 176F3521 (D3), 176F3526 (D4), 176F3633 (D3), 176F3634 (D4)

**Drive Adapter Plate Kit (optional)** Model(s) 176F3409 (D1,D3), 176F3410 (D2,D4)

**Duct kits (optional)** Model(s) 176F3627 (D3), 176F3628 (D4), 176F3629 (D3), 176F3630 (D4)

**Duct work cooling kits (optional)** Model(s) 176F1823, 1824, 1825, F1826, F1850

**Enclosed, AC Drive** Model(s) AF-600, AF-650, DTC302 series, LB-302, TR-200

**Mains shield kits (optional)** Model(s) 176F0799 (D1, D2), 176F1851 (E1), 177G5034 (D1), 177G5035 (D2)

**Pedestal option for Type 1 and Type 12** Model(s) 176F1827, 176F3631 (D1), 176F3632 (D2)

**Top entry kits (optional)** Model(s) 176F1832, 176F1833, 176F1834, 176F1835, 176F1836, 176F1837, 176F1838, 176F1839, 176F1840, 176F1841, 176F1845, 176F1846, 176F1847, 176F1848

## Investigated to UL 61800-5-1

**Accessory** Model(s) Kit, Auxiliary Ground Kit -176F6609

Pedestal accessories kit, tall plinth, e1--176f6764 kit, tall plinth, e2--176F6763

**Accessory - Ducting Kits** Model(s) KIT,600MM CAB,BTM IN-BACK OUT,E3,P4001--176F6612

KIT,600MM CAB,BTM IN-TOP OUT,E3,P4001--176F6606

KIT,800MM CAB,BTM IN-BACK OUT,E3,P4001--176F6613

KIT,800MM CAB,BTM IN-BACK OUT,E4,P4001--176F6614

KIT,800MM CAB,BTM IN-TOP OUT,E3,P4001--176F6607

KIT,800MM CAB,BTM IN-TOP OUT,E4,P4001--176F6608

KIT,BACK IN-BACK OUT,E3,P4001--176F6610, KIT,BACK IN-BACK OUT,E4,P4001--176F6611, KIT,BACK IN-TOP OUT,E3,P4001--176F6615, KIT,BACK IN-TOP OUT,E4,P4001--176F6616, KIT,E1h, BACK IN-BACK OUT, P4001--176F6617, KIT,E2h, BACK IN-BACK OUT, P4001--176F6618

**Pedestal Kits** Model(s) kit, tall plinth, e1--176f6764, kit, tall plinth, e2--176F6763

**Power Conversion Equipment, "Accessories"** Model(s) Handle and shaft Kit, E3, E4 - 176F3857

**Power Conversion Equipment, "Listed Accessory 3R Duct Kits"** Model(s) 176F3924, 176F3925, 176F3926

**Power Conversion Equipment** Model(s) ADS102 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

AF-600 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

AF-650 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

AKD102 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

CAR102 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

CD-302 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

CDS302 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX,





followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

TR-200 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

TRV200 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

WI-EFC followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

XAC302 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

+ - followed by 1454,1724,2024,2454,2924,3664,4604,5724,6354,6954

Last Updated on 2020-06-25

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# NMMS7.E70524 - Power Conversion Equipment Certified for Canada

## Power Conversion Equipment Certified for Canada

[See General Information for Power Conversion Equipment Certified for Canada](#)

### DANFOSS L L C

4401 N Bell School Rd  
Loves Park, IL 61111-5600 USA

E70524

## Investigated to CAN/CSA C22.2 No. 274

**3R conversion kits (optional)** Model(s) 0296, 0298, 1749, 176F0295, 1771, 4600, 4601

**3R Cover Kit for E5S Enclosure (Optional)** Model(s) 176F3691, 176F5744, 6302 (D1), 6303 (D2)

**AC motor controllers** Model(s) 1772, 3G3DV, 3G3DV, ADS102, AF-600, AF-650, AKD102, AKD102, CAR102, CAR102, CAR102, CD302, CDS302, CUE202, CUE202, CUE203, CUE203, DAA102, dsa, DV-302, DV-302, DV302, E94 followed by ASHE, ASPE, ASSE, or ASTE(+), FC 103 Series, FC-102 Series, FC-103, FC-103, FC-202 Series, FC-302 Series, FC-322 Series, IPC102, IR-302, IR302, IRV302, IRV302, ITT102, ITT102, IVS102, IVS102, KSB202, KSB202, LB-302, LD302, MWU302, TR-200, TRV200, TRV200, TRV200, WI-EFC, WI-EFC, WI-EFC Series, XAC302

**Accessory** Model(s) Kit, Auxiliary Ground Kit -176F6609

Pedestal accessories kit, tall plinth, e1--176f6764 kit, tall plinth, e2--176F6763

**Accessory Back Wall Cooling Duct Kit (Optional)**, Model(s) 176F6482 (D1n), 176F6481 (D2n)

**Accessory Cooling Kits** Model(s) 176F3678 (D3), 176F3679 (D4), 176F3680 (D3), 176F3681 (D4), 176F3682 (D3), 176F3683 (D4), 176F3684 (D3), 176F3685 (D4), 176F3686 (D3), 176F3687 (D4), 176F5726 (D3), 176F5727 (D4)

**Accessory Pedestal Options** Model(s) 176F3452 (D5, D6), 176F3539 (D7, D8)

**Accessory - Ducting Kits** Model(s) KIT,600MM CAB,BTM IN-BACK OUT,E3,P4001--176F6612

KIT,600MM CAB,BTM IN-TOP OUT,E3,P4001--176F6606

KIT,800MM CAB,BTM IN-BACK OUT,E3,P4001--176F6613

KIT,800MM CAB,BTM IN-BACK OUT,E4,P4001--176F6614

KIT,800MM CAB,BTM IN-TOP OUT,E3,P4001--176F6607

KIT,800MM CAB,BTM IN-TOP OUT,E4,P4001--176F6608

KIT,BACK IN-BACK OUT,E3,P4001--176F6610, KIT,BACK IN-BACK OUT,E4,P4001--176F6611, KIT,BACK IN-TOP OUT,E3,P4001--176F6615, KIT,BACK IN-TOP OUT,E4,P4001--176F6616, KIT,E1h, BACK IN-BACK OUT, P4001--176F6617, KIT,E2h, BACK IN-BACK OUT, P4001--176F6618

**Accessory Enclosed Advanced Active Filter** Model(s) A190, A250, A310, A400

**Cooling Kit with Extended Options (optional)** Model(s) 176F3530 (D1), 176F3531 (D2)

**Cooling Kit with Pedestal (optional)** Model(s) 176F3532 (D1), 176F3533 (D2)

**Cooling kits (optional)** Model(s) 176F3519 (D3), 176F3520 (D3), 176F3522 (D1,D3), 176F3523 (D1,D3), 176F3524 (D4), 176F3525 (D4), 176F3527 (D2,D4), 176F3528 (D2,D4), 176F3625 (D3), 176F3626 (D4), 176F3648 (D1), 176F3649 (D2), 176F3654 (D3), 176F3655 (D4), 176F3656 (D1), 176F3657 (D2)

**Cooling kits 3R (optional)** Model(s) 176F3521 (D3), 176F3526 (D4), 176F3633 (D3), 176F3634 (D4)

**Drive Adapter Plate Kit (optional)** Model(s) 176F3409 (D1,D3), 176F3410 (D2,D4)

**Duct kits (optional)** Model(s) 176F3627 (D3), 176F3628 (D4), 176F3629 (D3), 176F3630 (D4)

**Duct work cooling kits (optional)** Model(s) 176F1823, 1824, 1825, F1826, F1850

**Enclosed, AC Drive** Model(s) AF-600, AF-650, DTC302 series, LB-302, TR-200









WI-EFC followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

XAC302 followed by -N315, -N355, -N400, -N450, -N500, -N560, -N630, -N710, or -N800, followed by -T4, -T5, or -T7, followed by -E00, -E20, -E21, -E54, -E2M, -E5M, -C00, -H21, -H54, -C20, -C21, -C54, -C2M, -C5M, -C2H, -C5H, followed by H2, H4, N2, or N4, followed by X, B, R, T, U, or S, followed by X, N, G, J, K, or L, followed by X, C, or R, followed by X, 3, 5, 7, A, or D, followed by X, followed by X or Q, followed by SXXX, followed by X, followed by AX, A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, AA, AE, AF, AG, AH, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AX, AY, or AZ, followed by BX, B0, B1, B2, B4, B5, B6, B7, BA, BK, BR, BS, BT, BU, BV, BM, BP, BW, BY, BZ, BI, or BO, followed by CX, C0, C1, C2, or C4, followed by X, A, E, P, M, S, R, Z, 5, or 6, followed by XX, 10, 11, 12, 13, 14, 15, or 30, followed by DX or DO.

**Top entry kits (optional)** Model(s) 176F1832, 176F1833, 176F1834, 176F1835, 176F1836, 176F1837, 176F1838, 176F1839, 176F1840, 176F1841, 176F1845, 176F1846, 176F1847, 176F1848

## Investigated to CAN/CSA C22.2. No. 14-10

**AC Motor controllers, Base Drive** Model(s) FC-BDMNXXXXXXXHX series

**AC Motor controllers, VLT Parallel Drive Modules** Model(s) FC-102NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-202NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-302NXXXXXXXPX where P is identified for VLT parallel drive modules.

FC-322NXXXXXXXPX where P is identified for VLT parallel drive modules.

+ - followed by 1454,1724,2024,2454,2924,3664,4604,5724,6354,6954

Trademark and/or Tradename: "E70524" , "VLT" , "www.danfoss.com" ,



Last Updated on 2020-06-25

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