

## Danfoss A/S

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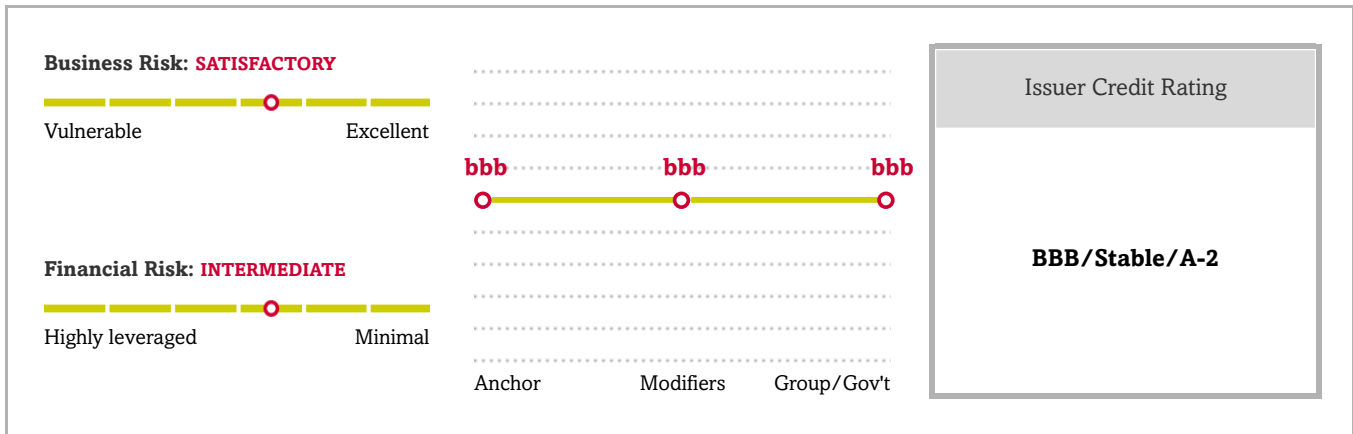
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# Danfoss A/S



## Credit Highlights

### Overview

Key strengths	Key risks
Leading position in each of its mechanical and electrical components niche markets.	Exposure to some pricing competition and cyclical demand from construction, agricultural, and other industrial markets, which could dent operating visibility and profitability.
Strong growth track record, both organically and via acquisitions, with revenue increasing above €10 billion in 2022 and more than doubling 2014 levels. We anticipate that megatrends such as energy efficiency and industrial electrification will continue to support Danfoss' growth in the next few years.	Acquisition appetite can lead to lumpiness in credit metrics and reduce financial headroom compared with our 30% FFO to debt downside threshold.
Solid customer, end-market, and geographic diversity, with 31% of 2022 sales from western Europe, 32% from North America, 24% from the Asia-Pacific region, and 13% from the rest of the world.	High investment intensity required to retain a strong market position, with annual research and development (R&D) expense and capital expenditure (capex) representing about 4.5% and 5.0% of sales historically.
Resilient operating performance during inflationary periods and the pandemic, with an S&P Global Ratings-adjusted EBITDA margin remaining stable at 15%-17% thanks to relatively low operating leverage and an agile structure.	
Financial policy commitment to retain credit metrics commensurate with a 'BBB' rating, with adjusted funds from operations (FFO) to debt staying above our 30% downside threshold historically, including periods of larger acquisition spending.	
Strong annual free operating cash flow (FOCF) of €400 million-€600 million historically and a prudent dividend policy provide financial flexibility.	

**We anticipate that Danfoss will continue to post strong operating results in 2023.** We expect the group's solid backlog and the list price increases progressively implemented in 2022 will drive organic revenue growth of 5%-7% in 2023, with additional inorganic growth of 2%-4% stemming from recently acquired businesses Semikron and Bock. We estimate that this will translate into overall revenue of about €11 billion, from €10.3 billion in 2022. While our base case assumes a deceleration in organic growth from the 15% recorded in 2021 and 2022, we still view the 5%-7% level as strong in the context of decelerating industrial demand globally. We expect the demand for Danfoss' products will remain supported by long-term megatrends such as energy efficiency or industrial electrification and decarbonation in the next two years. In addition, we anticipate that the group's adjusted EBITDA margin will improve to 16.0%-16.5% in 2023 from 15.7% in 2022, supported by improved cost inflation absorption, lower integration costs from previous

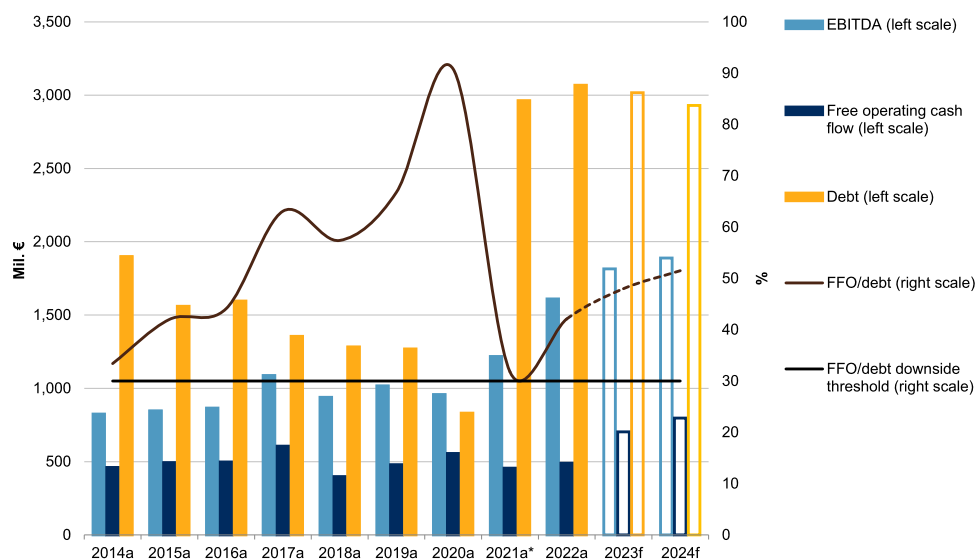
acquisitions, and higher synergies from Eaton Hydraulics within the power solutions segment. Danfoss' 2022 EBITDA margin was modestly affected by one-off costs related to the onboarding of Semikron and the Eaton integration. Overall, we estimate S&P Global Ratings-adjusted EBITDA will grow to about €1.8 billion in 2023, from €1.6 billion in 2022.

***Danfoss has regained financial flexibility after the Eaton acquisition, supported by earnings growth and strong FOCF***

We project adjusted FFO to debt of 45%-55% for 2023-2024, well above our 30% downside threshold, and improving from 42.1% in 2022. We anticipate the group's financial headroom will be supported by continued strong FOCF, which provides flexibility in cash allocation toward dividend payment, acquisition spending, and net debt reduction. We anticipate Danfoss' FOCF will increase close to €700 million in 2023 from €489 million in 2022, supported by EBITDA growth and lower working capital requirements. We estimate that this will allow the group to absorb dividend payments of about €250 million (including to minority interests) and bolt-on acquisition spending of up to €300 million without translating in an adjusted debt increase.

**Chart 1**

**Danfoss has regained sound financial headroom after the Eaton Hydraulics acquisition**



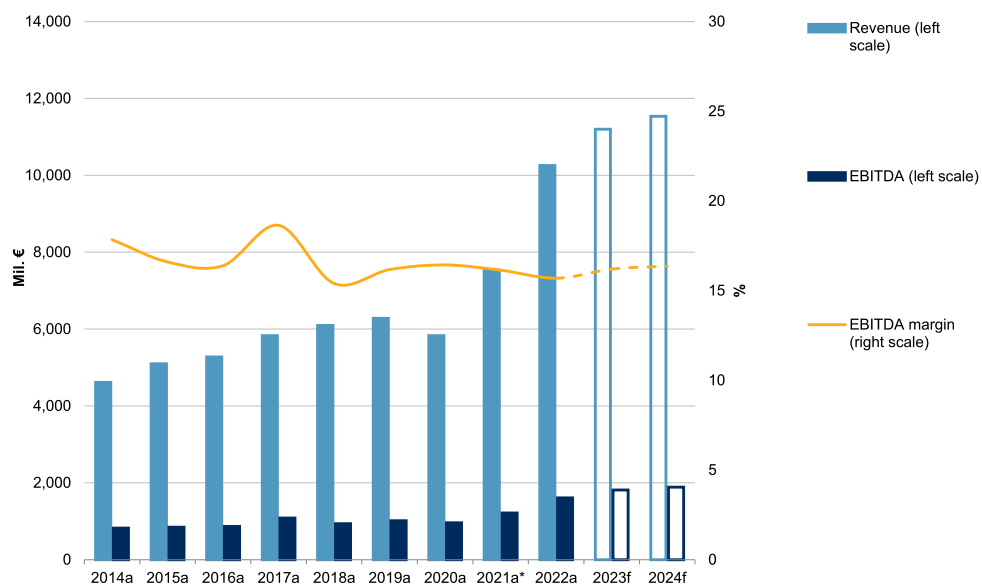
All figures adjusted by S&P Global Ratings. \*Only includes a five-month FFO contribution from Eaton Hydraulics. a--Actual. f--Forecast. FFO--Funds from operations. Source: S&P Global Ratings. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

***Danfoss continues to invest toward its growth roadmap with a clear focus on new technologies and products.*** In addition to regular bolt-on acquisitions aimed at strengthening its technology and product offering, we anticipate that the group will continuously invest internally to maintain organic growth prospects through capacity expansion and

product innovation. As a result, we think the company will further increase its capex spending to 5.5%-6.0% of its sales this year, from 5.4% in 2022 and 5.1% in 2021, while maintaining an elevated R&D envelope representing about 4.5% of revenue. This strategic spending is higher than for most of Danfoss' close peers, which we estimate at 2.5%-3.0% on average for both R&D and capex.

**Chart 2**

**Danfoss has a sound revenue and earnings growth track record**



All figures adjusted by S&P Global Ratings. \*Only includes a five-month contribution from Eaton Hydraulics. a--actual. f--Forecast. Source: S&P Global Ratings. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

## Outlook: Stable

The stable outlook reflects our view that Danfoss will maintain sound operating performance in the next 24 months, with adjusted EBITDA margins of about 16% and FFO to debt staying comfortably above 30%.

### Downside scenario

We could lower the rating if adverse market conditions or operating setbacks led to a materially weaker operating performance than anticipated, resulting in FFO to debt staying below 30% for a prolonged period. Higher-than-envisaged shareholder distributions or sizable additional debt-funded acquisitions could also lead us to lower the rating.

### Upside scenario

We could raise the rating if adjusted FFO to debt stayed above 45% through the cycle, supported by a financial policy commitment to maintain this leverage.

## Our Base-Case Scenario

## Assumptions

- Global real GDP growth to slow down to 2.7% in 2023 and 3.1% in 2024, after the 3.5% expansion in 2022. This incorporates growth of 0.3% and 1.0% in the eurozone for 2023-2024, 0.7% and 1.2% in the U.S., and 5.5% and 5.0% in China.
- Revenue growth of about 8%-10% in 2023 and 2%-4% in 2024, driven by the group's strong backlog, price increases, and contributions from recent business additions.
- Adjusted EBITDA margins improving to 16.0%-16.5% in 2023-2024 from 15.7% in 2022, supported by sound cost inflation absorption and progress in integrating Eaton Hydraulics and Semikron.
- Working capital outlays supporting volumes growth and businesses integration of about €100 million in 2023 and €50 million in 2024, decreasing from €226 million in 2022, as raw material inflation and safety stocks effects abate.
- Capex increasing to 5.5%-6.0% of sales per year in 2023-2024 from 5.4% in 2022 to support capacity additions and product innovation, translating into higher cash spending of €625 million-€675 million from €549 million in 2022.
- Dividend payments gradually increasing to about €250 million in 2023 and €300 million in 2024, in line with the company's payout ratio target of 30% and our earnings growth assumption. The figures include close to €50 million of annual dividends to minority interests.
- No share repurchases.
- Annual bolt-on acquisition spending of up to €300 million in 2023 and 2024 (including the Bock purchase), from €441 million in 2022.

## Key metrics

### Danfoss A/S--Key metrics

(Mil. €)	--Year ended Dec. 31--					
	2019a	2020a	2021a*	2022a	2023f	2024f
Revenue	6,285	5,828	7,539	10,256	11,000-11,400	11,300-11,700
Revenue growth (%)	3	(7)	29	16	8-10	2-4
EBITDA	1,017	958	1,217	1,610	1,700-1,900	1,800-2,000
EBITDA margin (%)	16	16	16	16	16-16.5	16-16.5
Funds from operations (FFO)	848	755	941	1,293	1,350-1,550	1,400-1,600
Capital expenditure	310	245	382	549	625-675	650-700
Free operating cash flow (FOCF)	479	555	456	489	675-725	775-825
Dividends	161	38	56	239	225-275	275-325
Discretionary cash flow (DCF)	258	515	398	248	425-475	450-500
Debt	1,269	831	2,963	3,068	c. 3,000	c. 3,000
Debt-to-EBITDA (x)	1.3	0.9	2.4	1.9	1.5-1.9	1.4-1.8
FFO-to-debt (%)	66.8	90.8	31.8	42.1	46-50	50-54

## Danfoss A/S--Key metrics (cont.)

(Mil. €)	--Year ended Dec. 31--					
	2019a	2020a	2021a*	2022a	2023f	2024f
FOCF-to-debt (%)	37.8	66.8	15.4	15.9	22-24	26-28

All figures adjusted by S&P Global Ratings. \*Eaton Hydraulics consolidated from Aug. 1, 2021. Main debt adjustments as of Dec. 31, 2022 include the addition of €270 million of lease liabilities, €137 million of pension obligations and €75 million of factoring debt, as well as the deduction of €290 million of accessible cash. a--Actual. f--Forecast.

## Company Description

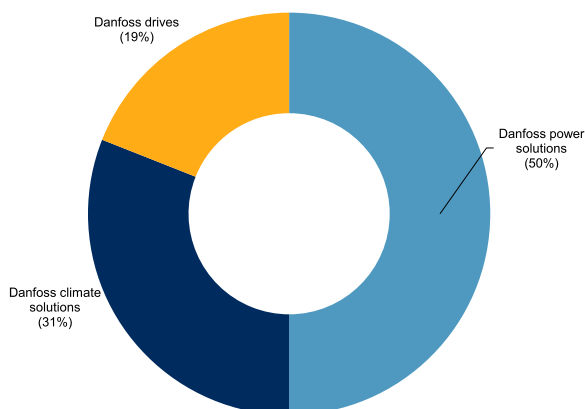
Danfoss is a leading producer of electrical and mechanical components in several industrial segments including power solutions, climate solutions, and drives. With revenue of about €10.3 billion and adjusted EBITDA of €1.6 billion in 2022, Danfoss operates under three main divisions:

- Danfoss Power Solutions: Hydraulic systems and electronic components, with 2022 segment revenue of €5.1 billion (50% of total revenue). End markets include relatively cyclical sectors such as agriculture, construction, material handling, and specialty equipment.
- Danfoss Climate Solutions: Components for the air conditioning and refrigeration industry, as well as heating components for residential and nonresidential heating and district energy, with 2022 segment revenue of €3.2 billion (31%). End markets include heating, ventilation, and air-conditioning systems, as well as commercial and industrial refrigeration.
- Danfoss Drives: Low voltage drives and power modules with 2022 segment revenue of €1.9 billion (19%). End markets are diverse, comprising several industrial sectors including heating, ventilation, air conditioning, mining, lifts and elevators, food and beverage, auto, wind, and solar.

Danfoss is a privately held company controlled by the Bitten and Mads Clausen's Foundation. The foundation and the Clausen family hold 99.8% of the voting shares.

**Chart 3**

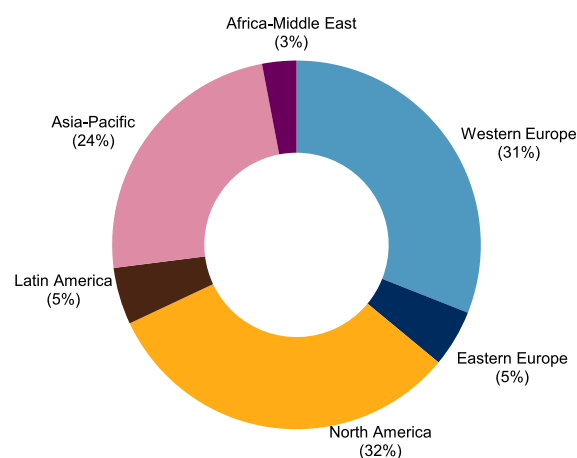
Danfoss A/S sales split by segment in 2022



Sources: Danfoss annual report, S&amp;P Global Ratings.

**Chart 4**

Danfoss A/S sales split by geographic region in 2022

Sources: Danfoss annual report, S&P Global Ratings.  
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## Peer Comparison

**Table 1**

### Danfoss A/S--Peer comparison

Industry sector:  
Capital  
goods/diversified

	Danfoss A/S	Parker-Hannifin Corp.	Alfa Laval AB	Emerson Electric Co.	Eaton Corp. PLC	Assa Abloy AB	Sandvik AB
Ratings as of May 5, 2023	BBB/Stable/A-2	BBB+/Negative/A-2	BBB+/Stable/--	A/Stable/A-1	A-/Stable/A-2	A-/Negative/A-2	A-/Negative/A-2
<b>--Fiscal year ended--</b>							
	<b>Dec. 31, 2022</b>	<b>June 30, 2022</b>	<b>Dec. 31, 2022</b>	<b>Sept. 30, 2022</b>	<b>Dec. 31, 2022</b>	<b>Dec. 31, 2022</b>	<b>Dec. 31, 2022</b>
<b>(Mil. €)</b>							
Revenue	10,256.0	15,173.7	4,679.8	20,018.3	19,417.2	10,842.7	10,083.3
EBITDA	1,610.0	3,354.0	832.9	4,849.3	3,953.2	2,024.7	2,173.6
Funds from operations (FFO)	1,293.0	2,540.6	642.3	3,895.9	3,335.5	1,559.9	1,577.6
Interest expense	90.0	246.3	31.4	248.7	150.8	71.2	154.1
Cash interest paid	84.0	288.0	26.0	219.2	250.0	72.9	123.7
Cash flow from operations	1,038.0	2,321.7	278.0	3,152.4	2,521.5	1,288.7	957.6
Capital expenditure	549.0	220.1	166.3	541.5	559.5	179.2	424.8



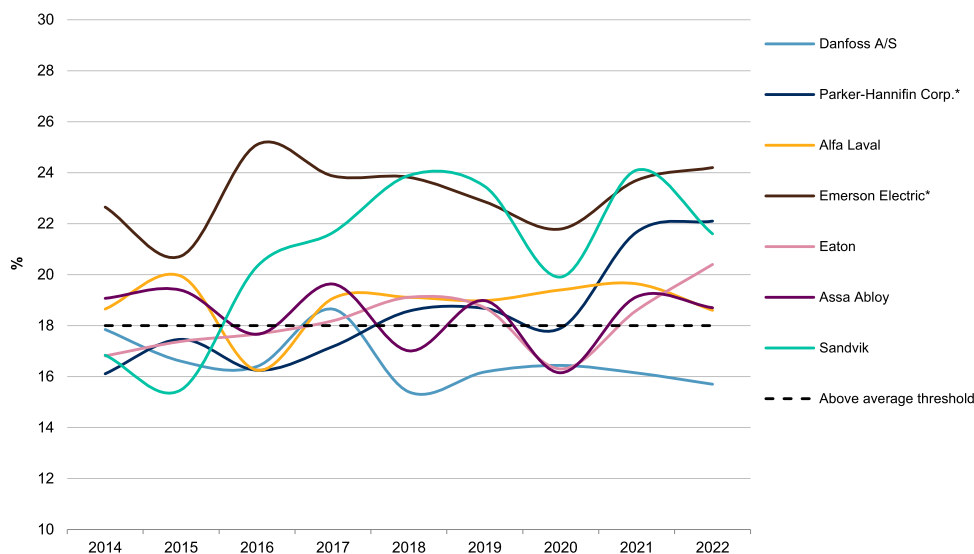
Table 1

Danfoss A/S--Peer comparison (cont.)							
Free operating cash flow (FOCF)	489.0	2,101.6	111.7	2,610.9	1,961.9	1,109.6	532.7
Discretionary cash flow (DCF)	248.0	1,116.4	(171.4)	853.7	422.7	685.3	(1.8)
Cash and short-term investments	340.0	539.2	418.6	1,839.8	519.3	306.7	941.5
Debt	3,068.2	11,256.2	1,454.9	9,536.9	8,861.0	2,956.6	3,582.4
Equity	5,048.0	8,475.7	3,204.9	16,639.6	15,976.7	7,722.0	7,256.4
<b>Adjusted ratios</b>							
EBITDA margin (%)	15.7	22.1	17.8	24.2	20.4	18.7	21.6
Return on capital (%)	14.4	15.4	14.1	16.8	11.3	17.2	16.7
EBITDA interest coverage (x)	17.9	13.6	26.5	19.5	26.2	28.4	14.1
FFO cash interest coverage (x)	16.4	9.8	25.7	18.8	14.3	22.4	13.8
Debt/EBITDA (x)	1.9	3.4	1.7	2.0	2.2	1.5	1.6
FFO/debt (%)	42.1	22.6	44.1	40.9	37.6	52.8	44.0
Cash flow from operations/debt (%)	33.8	20.6	19.1	33.1	28.5	43.6	26.7
FOCF/debt (%)	15.9	18.7	7.7	27.4	22.1	37.5	14.9
DCF/debt (%)	8.1	9.9	(11.8)	9.0	4.8	23.2	(0.1)

With the acquisition of Eaton Hydraulics, Danfoss passed the €10 billion revenue mark in 2022, reaching a size similar to two other rated capital goods companies: Assa Abloy AB (A-/Negative/A-2) and Sandvik AB (A-/Negative/A-2). However, Danfoss' size and profitability still compares negatively with direct peers such as Parker-Hannifin Corp. (BBB+/Negative/A-2), Emerson Electric Co. (A/Stable/A-1), and Eaton Corp. (A-/Stable/A-2). Those larger peers have maintained adjusted EBITDA above 18% historically, compared with 15%-17% for Danfoss.

## Chart 5

Danfoss' adjusted EBITDA margins are sound, but trend below some close peers'



All figures adjusted by S&P Global Ratings. \*Fiscal year ending Jun. 30 for Parker and Sep. 30 for Emerson.

Source: S&P Global Ratings.

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## Business Risk: Satisfactory

**Danfoss enjoys leading market positions in its segments.** The group has a widely diversified product and service portfolio and is the market leader or among the top-three solution providers in all the niches in which it operates, with market share of 10%-15% on average. In its power solutions division, the group competes with Rexroth (a Robert Bosch company) and Parker-Hannifin. The acquisition of Eaton Hydraulics added about €2 billion of annual sales and strengthened Danfoss' position as one of the largest operators globally within hydraulic systems. Its climate solutions segment competes with some of the products offered by Emerson, Parker, and Alfa Laval (BBB+/Stable/--), with leading positions in cooling and heating components. Its drives division competes with some of the low-voltage products and power modules offered by ABB (A-/Stable/A-2), Siemens (A+/Stable/A-1+), and Rockwell Automation (A/Negative/A-1).

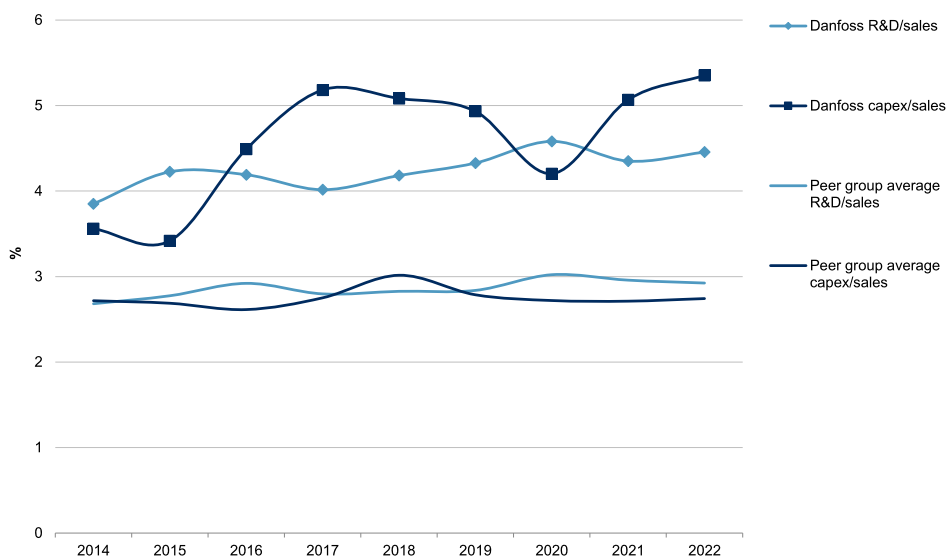
**Megatrends tailwinds should support demand for Danfoss' products.** We think Danfoss is well placed to capture new demand in its core segments, supported by its existing market leadership, sustained internal investments and recent acquisitions. We anticipate tailwinds from growing demand for power electronics components in its drives segment, underpinned by growing electrification in automotive and other industries. We believe this will be supported by the

recent Semikron acquisition, which adds strategic offering in silicon carbide semiconductor modules. Although we foresee the electrification of off-highway vehicles as more gradual, it could also provide opportunities in Danfoss' power solutions segment. In climate solutions, we think that the demand for more sustainable systems and an increased digital product content should lead to sound long-term growth prospects. We anticipate heat exchangers and heat pumps components will remain in high demand over the next few years, while the compressors of the recently acquired Bock business should benefit from the demand for greener refrigeration systems.

**Danfoss is investing more capital than its peers in new products and technologies.** The group's sustained annual R&D and capex is above that of its main peers, historically representing close to 4.5% and 5.0% of its sales, respectively. On one hand, we view this investment allocation favorably, because it could constitute a source of innovation and organic growth. The group had a similar R&D budget to Parker over 2017-2022, despite being about half the size of its competitor historically. Danfoss' absolute spending remained lower than that of larger players Emerson Electric and Eaton over the same period, but we think sustained investments should continue to support its strong market position and pricing power in its core segments. On the other hand, the higher spending somewhat constrains profitability and cash flow, with recurring maintenance capex suggesting relatively high capital intensity. Danfoss' capex budget was 1.5x-2.0x higher than for Parker and Assa Abloy over 2017-2022, which we think somewhat reduced its FOCF capacity in comparison with peers.

**Chart 6**

**Danfoss' internal investments are materially above main peers'**



All figures adjusted by S&P Global Ratings. Peer group includes Parker, Alfa Laval, Emerson Electric, Eaton, Assa Abloy and Sandvik. R&D--Research and development. Capex--Capital expenditure. Source: S&P Global Ratings.

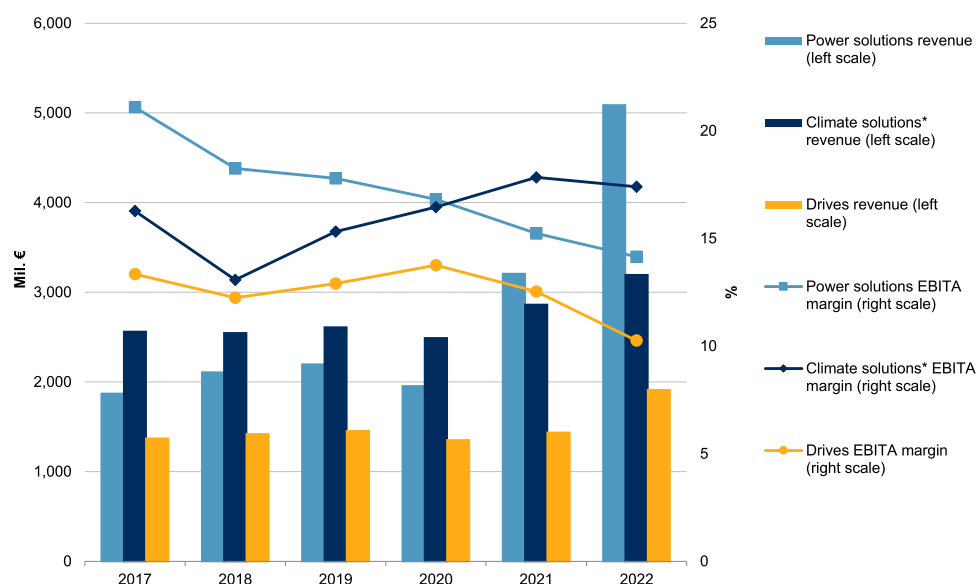
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**Danfoss' operations are well balanced, with some exposure to cyclical end markets.** The group is present in more than 100 countries worldwide, making its business geographically well diversified. Danfoss' diverse customer base covers various key end markets such as agriculture, construction, specialty mobile machines, industrial and residential heating and cooling, energy, renewables, food, and beverage, and auto. We think this diversification supports the group's business resilience, providing some earnings stability at low points of the industrial activity cycle. That said, Danfoss remains somewhat exposed to pricing competition and cyclical demand, especially in power solutions where it caters components to off-highway vehicles used in agriculture, construction, and material handling. In 2020, the power solutions segment's revenue and reported EBITA fell by about 11% and 16%, respectively, compared with 7% and 6% for the total group. Pro forma the Eaton Hydraulics integration, close to 50% of sales are derived from the power solutions business (from about 33% previously), which could result in greater earnings volatility through the cycle.

**Danfoss has a sound profitability track record.** The group's adjusted EBITDA margins are positioned at the upper end of the 11%-18% range that we view as average for the capital goods industry. Danfoss has demonstrated resilience during inflationary periods and the pandemic, maintaining stable margins of 15%-17% over 2018-2022 thanks to its relatively low operating leverage and fixed-cost reduction (now representing about 30% of the cost base), as well as continued contribution margin optimization. We anticipate that the group will continue to post robust adjusted EBITDA margins within its historical 15%-17% range in the next two years. We estimate lower integration costs related to the Eaton Hydraulics acquisition and higher operating synergies in production, procurement, and organization will support gradual profitability improvement in the power solutions segment. We also understand that the operating disruptions related to Semikron's cyber-attack in 2022 have been fully addressed, which should be accretive for the drives segment in 2023.

## Chart 7

Danfoss revenue and profitability by segment



Figures as reported by the company. \*Combining Cooling and Heating segments for 2017-2019. Source: Danfoss annual reports, S&P Global Ratings. Copyright © 2023 by Standard & Poor's Financial Services LLC. All rights reserved.

## Financial Risk: Intermediate

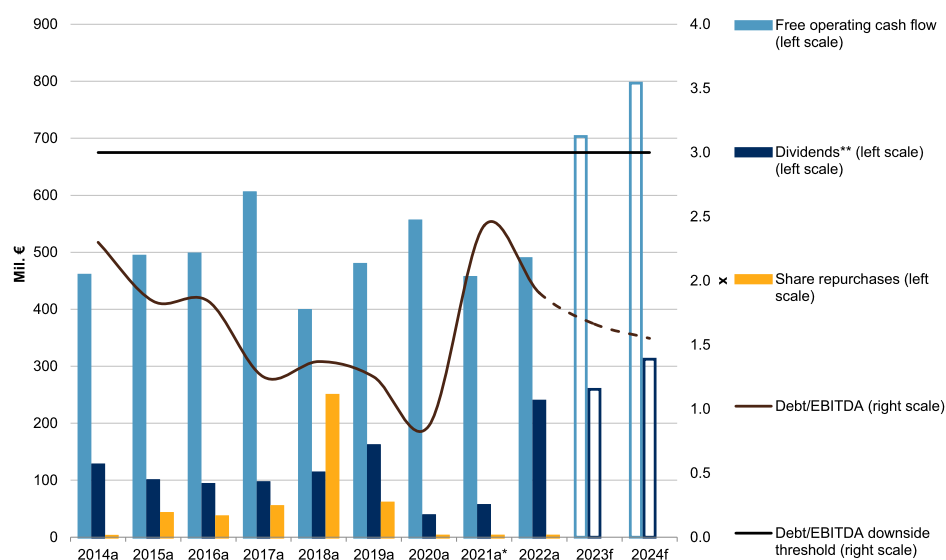
*Danfoss is committed to retaining a 'BBB' rating and has a track record in achieving this.* We think the group is strongly committed to maintaining leverage commensurate with the 'BBB' rating. We anticipate adjusted FFO to debt above of 45%-55% in 2023-2024, well above our 30% downside trigger, and adjusted debt to EBITDA of 1.5x-2.0x, well below our 3x rating limit. Before acquiring Eaton Hydraulics, the group maintained strong adjusted FFO to debt of 50%-90% and adjusted debt to EBITDA of 1.0x-1.5x between 2017 and 2020. Strong annual FOCF allowed the group to partly prefund the sizable €2.7 billion transaction, while common dividend cancellations during 2020-2021 helped it keep FFO to debt above 30% and debt to EBITDA below 2.5x shortly after closing. As of year-end 2022, Danfoss had adjusted debt of about €3.1 billion, broadly stable from €3.0 billion in 2021. Our main adjustments to its reported debt of €2.9 billion are €270 million for leases, €137 million for pensions, and €75 million for factoring. We deducted from those adjustments €290 million of cash that we consider to be accessible.

*Strong FOCF and moderate shareholder distributions provide financial flexibility and sustain Danfoss' credit standing.* Danfoss has a strong cash-generation track record, with FOCF staying between €400 million and €600 million over 2014-2022, allowing for flexibility in its dividend and acquisition policy. We view Danfoss' payout target of distributing

no more than 30% of net income (in addition to annual minority dividends of about €50 million) as lower than most of its public Scandinavian peers. We also believe that Danfoss can swiftly adjust its acquisition and dividend spending to preserve cash and credit metrics if needed during periods of less favorable market conditions. In 2020 and 2021, the board approved common dividend payment cancellations to preserve Danfoss' balance sheet because of the pandemic, and because it was set to acquire Eaton Hydraulics for about €2.7 billion.

### Chart 8

Danfoss' prudent shareholder return policy provides financial flexibility



All figures adjusted by S&P Global Ratings. \*Only includes a five-month contribution from Eaton Hydraulics.  
 §Includes common dividends and dividends to minority interests. a--Actual. f--Forecast. Source: S&P Global Ratings.  
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## Financial summary

Table 2

### Danfoss A/S--Financial summary

Industry sector: Capital goods/diversified

	--Fiscal year ended Dec. 31--				
	2022	2021	2020	2019	2018
<b>(Mil. €)</b>					
Revenue	10,256.0	7,539.0	5,828.0	6,285.0	6,098.0
EBITDA	1,610.0	1,217.0	958.0	1,017.0	939.0
Funds from operations (FFO)	1,293.0	941.0	755.0	848.0	737.0
Interest expense	90.0	62.0	37.0	33.0	46.0

Table 2

**Danfoss A/S--Financial summary (cont.)**

	--Fiscal year ended Dec. 31--				
	2022	2021	2020	2019	2018
Cash interest paid	84.0	67.0	34.0	29.0	45.0
Cash flow from operations	1,038.0	838.0	800.0	789.0	708.0
Capital expenditure	549.0	382.0	245.0	310.0	310.0
Free operating cash flow (FOCF)	489.0	456.0	555.0	479.0	398.0
Discretionary cash flow (DCF)	248.0	398.0	515.0	258.0	36.0
Cash and short-term investments	340.0	249.0	611.0	110.0	50.0
Gross available cash	340.0	249.0	611.0	110.0	50.0
Debt	3,068.2	2,963.3	831.4	1,269.0	1,283.3
Equity	5,048.0	3,951.0	3,184.0	2,933.0	2,654.0
<b>Adjusted ratios</b>					
EBITDA margin (%)	15.7	16.1	16.4	16.2	15.4
Return on capital (%)	14.4	15.1	15.4	16.9	15.9
EBITDA interest coverage (x)	17.9	19.6	25.9	30.8	20.4
FFO cash interest coverage (x)	16.4	15.0	23.2	30.2	17.4
Debt/EBITDA (x)	1.9	2.4	0.9	1.2	1.4
FFO/debt (%)	42.1	31.8	90.8	66.8	57.4
Cash flow from operations/debt (%)	33.8	28.3	96.2	62.2	55.2
FOCF/debt (%)	15.9	15.4	66.8	37.7	31.0
DCF/debt (%)	8.1	13.4	61.9	20.3	2.8

**Reconciliation**

Table 3

**Danfoss A/S--Reconciliation of reported amounts with S&P Global Ratings' adjusted amounts (Mil. €)**

--Fiscal year ended Dec. 31, 2022--							
<b>Danfoss A/S reported amounts</b>							
	Debt	Shareholders' equity	EBITDA	Operating income	Interest expense	S&P Global Ratings' adjusted EBITDA	Cash flow from operations
Reported	2,874.0	4,720.0	1,579.0	1,043.0	86.0	1,610.0	1,053.0
<b>S&amp;P Global Ratings' adjustments</b>							
Cash taxes paid	--	--	--	--	--	(233.0)	--
Cash interest paid	--	--	--	--	--	(84.0)	--
Trade receivables securitizations	75.0	--	--	--	--	--	(15.0)
Reported lease liabilities	270.0	--	--	--	--	--	--
Postretirement benefit obligations/deferred compensation	137.0	--	--	--	4.0	--	--
Accessible cash and liquid investments	(289.8)	--	--	--	--	--	--

**Table 3**

<b>Danfoss A/S--Reconciliation of reported amounts with S&amp;P Global Ratings' adjusted amounts (Mil. €) (cont.)</b>							
Income (expense) of unconsolidated companies	--	--	(3.0)	--	--	--	--
Nonoperating income (expense)	--	--	--	4.0	--	--	--
Noncontrolling interest/minority interest	--	328.0	--	--	--	--	--
Debt: Other	2.0	--	--	--	--	--	--
EBITDA: Gain/(loss) on disposals of PP&E	--	--	34.0	34.0	--	--	--
Total adjustments	194.2	328.0	31.0	38.0	4.0	(317.0)	(15.0)
<b>S&amp;P Global Ratings' adjusted amounts</b>							
	<b>Debt</b>	<b>Equity</b>	<b>EBITDA</b>	<b>EBIT</b>	<b>Interest expense</b>	<b>Funds from operations</b>	<b>Cash flow from operations</b>
Adjusted	3,068.2	5,048.0	1,610.0	1,081.0	90.0	1,293.0	1,038.0

## Liquidity: Strong

We assess Danfoss' liquidity as strong. We expect sources of liquidity will cover uses by at least 1.5x over the 12 months from Jan. 1, 2023, and by 1.3x in the following 12 months. Our assessment is also supported by the group's prudent risk management, track record of addressing debt maturities well in advance, sound relationship with banks, and covenant-free capital structure.

Principal liquidity sources for the 24-month period starting Jan. 1, 2023, include:

- Our assumption of about €290 million of total unrestricted cash;
- Close to €715 million available under several long-term committed credit lines in the next 12 months. Our conservative assumption is that this will decrease to about €550 million in the subsequent 12 months, although we expect the group will extend the upcoming maturities well in advance; and
- Cash FFO of €1,300 million-€1,400 million in the next 12 months, increasing to about €1,400 million-€1,500 million over the following 12 months.

Principal liquidity uses for the same period:

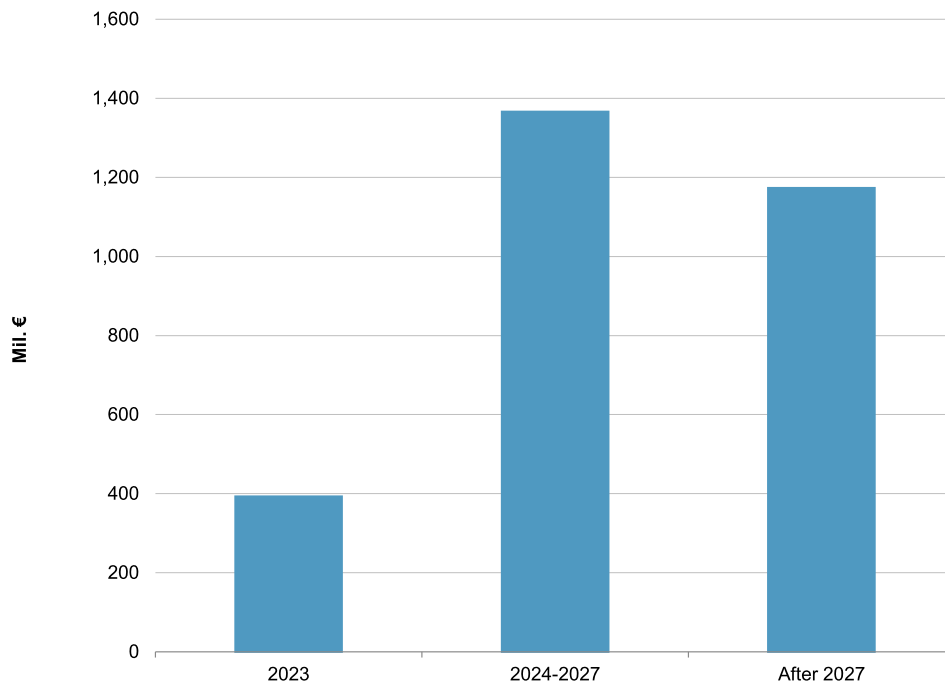
- Debt maturities of about €370 million in the next 12 months and close to €500 million over the subsequent 12 months;
- Total working capital requirements of about €200 million in 2023 and €150 million in 2024, including intra-year swings of up to €100 million;
- Annual capex of roughly €600 million-€700 million in the next 24 months;
- Annual dividend payments of up to €300 million in the next 24 months, including to minority interests; and
- About €100 million of contracted acquisition spending in the next 24 months, including the Bock acquisition that was closed in first-quarter 2023.



## Debt maturities

### Chart 9

Danfoss debt maturity profile as of Dec. 31, 2022



Source: Danfoss annual report, S&P Global Ratings.

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## Environmental, Social, And Governance

### ESG Credit Indicators

E-1	<b>E-2</b>	E-3	E-4	E-5	S-1	<b>S-2</b>	S-3	S-4	S-5	G-1	<b>G-2</b>	G-3	G-4	G-5
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ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumerical 1-5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicators: Definition And Applications," published Oct. 13, 2021.

ESG factors are an overall neutral consideration in our credit rating analysis of Danfoss. Danfoss' end-market exposure is well diversified, with no significant exposure toward industries with higher environmental risks, such as oil and gas, metals and mining, or automotive. Although Danfoss has some exposure to off-highway vehicles through its hydraulic systems and electronic controls products, those are mostly used by construction and agriculture customers that we view as less prone to environmental risks. We also view positively Danfoss' increasing solutions offering for the renewable industry (solar and wind electric power conversion), the electrification of vehicles (power modules), and energy efficiency in heating and cooling for residential and commercial construction. We view the carbon intensity of Danfoss' operations as broadly in line with the capital goods sector average, with the group committed to reducing its direct and indirect carbon dioxide emissions by at least 46% and 15%, respectively, before 2030.

## Issue Ratings - Subordination Risk Analysis

### Capital structure

- Danfoss' consolidated unadjusted debt at Dec. 31, 2022, amounts to €2.9 billion, of which about €64 million is represented by a mortgage loan that we consider secured. Danfoss has a €2.5 billion euro medium-term note (EMTN) program, under which €1.4 billion and €500 million of unsecured debt was issued by financing vehicles Danfoss Finance I B.V. and Danfoss Finance II B.V., respectively.
- Operating subsidiary Danfoss Power Solutions Inc. is the immediate parent of Danfoss Finance I B.V., and ultimate group parent company Danfoss A/S the immediate parent of Danfoss II B.V.
- Danfoss A/S and Danfoss Power Solutions Inc. have irrevocably and unconditionally agreed to guarantee, on a joint and several basis, the obligations of Danfoss Finance I B.V. under and in relation to notes issued by Danfoss Finance I B.V.
- Danfoss A/S has irrevocably and unconditionally agreed to guarantee the obligations of Danfoss Finance II B.V. under and in relation to notes issued by Danfoss Finance II B.V.
- Including the €1.4 billion of debt issued by Danfoss Finance I B.V. on behalf of Danfoss Power Solutions Inc. and about €66 million of other unsecured debt held at other subsidiaries, our priority debt ratio was about 57% as of Dec. 31, 2022.
- Our overall priority debt on Danfoss A/S's consolidated debt of over 50% indicates structural subordination for

rated debt issued by Danfoss A/S or Danfoss Finance II B.V.

- That said, to overcome any structural subordination, Danfoss Power Solutions Inc. has provided an upstream guarantee to Danfoss A/S. We view the upstream guarantee from Danfoss Power Solutions Inc. (supported by a third-party legal opinion) as a mitigant to structural subordination.

### Analytical conclusions

- We rate Danfoss A/S's EMTN program and the notes issued by Danfoss Finance II B.V. 'BBB' because elements of structural subordination have been mitigated by the upstream guarantee issued by Danfoss Power Solutions Inc. to Danfoss A/S.
- Danfoss Finance I B.V.'s notes are rated 'BBB', in line with the long-term issuer credit rating on Danfoss A/S.

## Ratings Score Snapshot

### Issuer Credit Rating

BBB/Stable/A-2

### Business risk: Satisfactory

- **Country risk:** Intermediate
- **Industry risk:** Intermediate
- **Competitive position:** Satisfactory

### Financial risk: Intermediate

- **Cash flow/leverage:** Intermediate

Anchor: bbb

### Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

## Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

## Related Research

- Global Economic Outlook Q2 2023: Real Resilience Meets Financial Fragility, March 29, 2023
- Industry Top Trends 2023: Capital Goods, Jan. 23, 2023

Business And Financial Risk Matrix						
Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
<b>Satisfactory</b>	a/a-	bbb+	<b>bbb/bbb-</b>	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

## Ratings Detail (As Of May 12, 2023)\*

### Danfoss A/S

Issuer Credit Rating BBB/Stable/A-2

### Issuer Credit Ratings History

29-Mar-2021	BBB/Stable/A-2
14-Sep-2020	BBB/Negative/A-2
25-Mar-2020	BBB/Watch Neg/A-2
23-Jan-2020	BBB/Negative/A-2

\*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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