



PowerXL Variable Frequency Drives DC1 Compact Machinery Drive

The compact PowerXL DC1 variable frequency drive is particularly well-suited for use with simple pump, fan, and conveyor belt systems. It can be quickly and easily configured and commissioned, resulting in tangible savings.

Performance range:

- 0.37 ... 0.55 kW (U_0 : 1~ 115 V, U_2 : 1~ 115 V)
- 0.37 ... 1.1 kW (U_0 : 1~ 115 V, U_2 : 3~ 230 V)
- 0.37 ... 1.1 kW (U_0 : 1~ 230 V, U_2 : 1~ 230 V)
- 0.37 ... 4 kW (U_0 : 1~ 230 V, U_2 : 3~ 230 V)
- 0.37 ... 11 kW (U_0 : 3~ 230 V, U_2 : 3~ 230 V)
- 0.75 ... 22 kW (U_0 : 3~ 400 V, U_2 : 3~ 400 V)

Features:

- Fast commissioning with 14 basic parameters
- Large overload capability: 150% for 60 seconds, 175% for 2 seconds
- Ambient air temperature up to 50 °C without derating
- Sensorless Vector Control
- Control of high efficient IE4 motors
- Full Short Circuit Protection
- Integrated CANopen and Modbus RTU
- Degrees of protection IP20 and IP66
- Integrated EMC filter
- Integrated braking transistor
- Integrated PI controller
- V/F control
- Voltage boost
- DC braking
- Detachable control signal terminal strip
- International standards (CE, UL, cUL, RCM, RoHS, EAC, UkrSEPRO)

Accessories:

- SmartWire-DT connection
- I/O expansions
- External keypad
- Mains chokes
- Motor chokes
- Sine filters
- Braking resistances
- drivesConnect parameter configuration software
- External EMC filter

Applications:

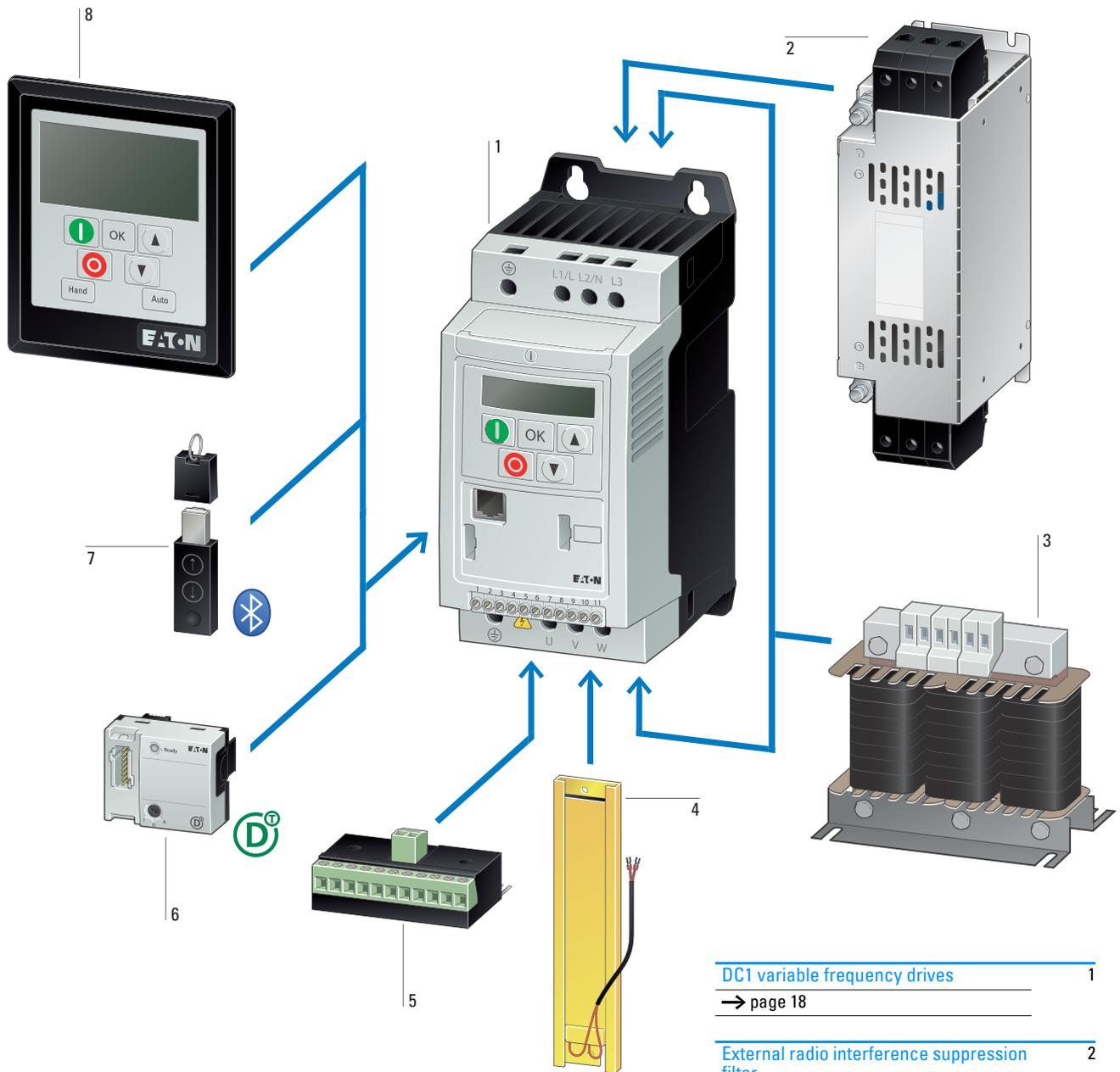
- Pumps, fans
- Machines
- Coating systems
- Conveyor belts
- Filling machines
- Distributed applications (IP66)
- Single-phase motors



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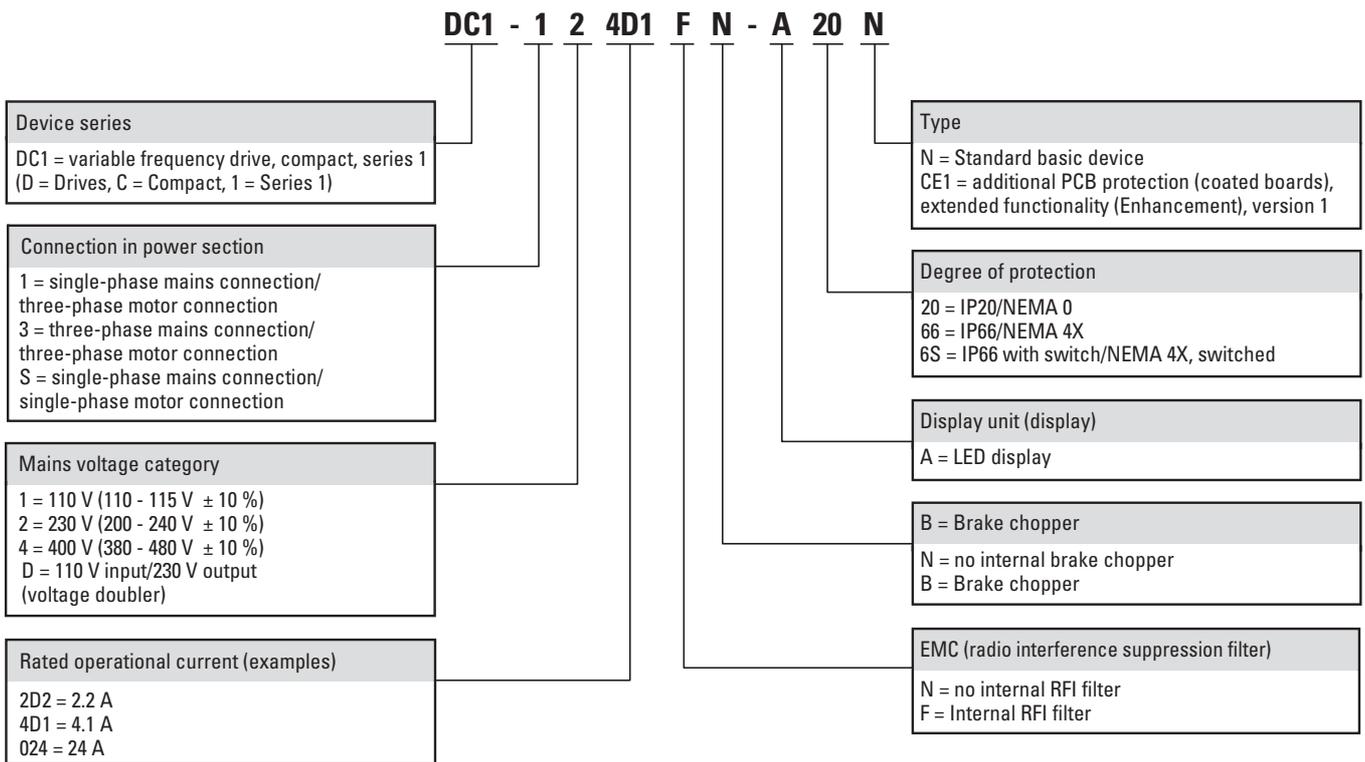
System overview

DC1 with IP20 degree of protection



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Key to type references



Sizes and degree of protection

Frame size	Degree of Protection		
	IP20/NEMA 0	IP66/NEMA 4X	IP66/NEMA 4X Local controls
FS1			
FS2			
FS3			
FS4			

UL/CSA

Information relevant for export to North America



Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, certified by UL for use in Canada
Suitable for	Branch circuits
Max. Voltage Rating	1~ 120 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey) 1~ 240 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey) 3~ 240 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey) 3~ 480 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey)

Rated operational current ^{1), 4)}	Assigned motor rating ^{1), 2), 3)}		Fitted with	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
I_e A	P kW	P HP	Radio interference suppression filter Brake chopper 7-digital display assembly					
PowerXL variable frequency drives DC1								
U _e 115 V AC, single-phase / U ₂ 115 V AC, single-phase Mains voltage (50/60Hz) U _{LN} 110 (-10%) - 115 (+10%) V								
7	0.37	0.5	- - ✓	FS1	IP20/NEMA 0	DC1-S17D0NN-A20CE1 186073		1 off  
10.5	0.55	0.75	- ✓ ✓	FS2		DC1-S1011NB-A20CE1 186076		
U _e 230 V AC, 1-phase / U ₂ 230 V AC, single-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V								
4.3	0.37	0.5	- - ✓ ✓ - ✓	FS1	IP20/NEMA 0	DC1-S24D3NN-A20CE1 186079		1 off  
7	0.75	1	- - ✓ ✓ - ✓			DC1-S24D3FN-A20CE1 186088		
						DC1-S27D0NN-A20CE1 186082		
						DC1-S27D0FN-A20CE1 186091		
10.5	1.1	1.5	- ✓ ✓ ✓ ✓ ✓	FS2		DC1-S2011NB-A20CE1 186085		
						DC1-S2011FB-A20CE1 186094		

Notes

¹⁾ Overload cycle: 150 % for 60 s every 600 s

²⁾ DC1-S1...: at 115 V, 50 Hz/at 110 - 120 V, 60 Hz

DE1-34...:DC1-S2...: at 230 V, 50 Hz/at 220 - 240 V, 60 Hz

³⁾ For AC motors with internal and external ventilation with 50/60 Hz without additional start capacitor

⁴⁾ Rated operational current at an operating frequency of 16 kHz and an ambient air temperature of +50 °C



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Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)} P kW		Fitted with Radio interference suppression filter Brake chopper 7-digital display assembly	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P	HP						

PowerXL variable frequency drives DC1

The mains voltage of 115 V is raised to 230 V (output voltage) through an internal voltage double connection.

U_e 115 V AC, single-phase / U₂ 230 V AC, 3-phase

Mains voltage (50/60Hz) U_{LN} 110 (-10%) - 115 (+10%) V

2.3	0.37	0.5	-	-	✓	FS1	IP20/NEMA 0	DC1-1D2D3NN-A20CE1 185765	1 off  
4.3	0.75	1	-	-	✓			DC1-1D4D3NN-A20CE1 185768	
5.8	1.1	1.5	-	✓	✓	FS2	DC1-1D5D8NB-A20CE1 185771		

U_e 230 V AC, 1-phase / U₂ 230 V AC, 3-phase

Mains voltage (50/60Hz) U_{LN} 200 (-10%) - 240 (+10%) V

2.3	0.37	0.5	-	-	✓	FS1	IP20/NEMA 0	DC1-122D3NN-A20CE1 185785	1 off  
			✓	-	✓			DC1-122D3FN-A20CE1 185803	
4.3	0.75	1	-	-	✓	FS2	DC1-124D3NN-A20CE1 185788		
			✓	-	✓		DC1-124D3FN-A20CE1 185806		
7	1.5	2	-	-	✓	FS2	DC1-127D0NN-A20CE1 185791	1 off  	
			✓	-	✓		DC1-127D0FN-A20CE1 185809		
			-	✓	✓	DC1-127D0NB-A20CE1 185794			
			✓	✓	✓	DC1-127D0FB-A20CE1 185812			
10.5	2.2	3	-	✓	✓	FS3	DC1-12011NB-A20CE1 185797	1 off  	
			✓	✓	✓		DC1-12011FB-A20CE1 185815		
15.3 ⁵⁾	4	5	-	✓	✓	FS3	DC1-12015NB-A20CE1 185800		

Notes

¹⁾ Overload cycle: 150 % for 60 s every 600 s

²⁾ at 230 V, 50 Hz/at 220 - 240 V, 60 Hz

³⁾ for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz

⁴⁾ Rated operational current at an operating frequency of 16 kHz and an ambient air temperature of +50 °C

⁵⁾ Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +50 °C

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Rated operational current ^{1), 4)} <i>I_e</i> A	Assigned motor rating ^{1), 2), 3)} P kW	P HP	Fitted with Radio interference suppression filter Brake chopper 7-digital display assembly	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
PowerXL variable frequency drives DC1								
U ₀ 230 V AC, 3-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V								
2.3	0.37	0.5	- - ✓	FS1	IP20/NEMA 0	DC1-322D3NN-A20CE1 185818		1 off 
4.3	0.75	1	- - ✓					
7	1.5	2	- - ✓	FS2		DC1-324D3NN-A20CE1 185821		
			- ✓ ✓			DC1-327D0NN-A20CE1 185824		
10.5	2.2	3	- ✓ ✓	FS2		DC1-327D0NB-A20CE1 185827		
			✓ ✓ ✓			DC1-327D0FB-A20CE1 185836		
18 ⁵⁾	4	5	- ✓ ✓	FS3		DC1-32011NB-A20CE1 185830		
			✓ ✓ ✓			DC1-32011FB-A20CE1 185839		
24	5.5	7.5	- ✓ ✓	FS3		DC1-32018NB-A20CE1 185833		
			✓ ✓ ✓			DC1-32018FB-A20CE1 185842		
30	7.5	10	- ✓ ✓	FS4	DC1-32024NB-A20CE1 185777			
			✓ ✓ ✓		DC1-32024FB-A20CE1 185774			
46	11	15	- ✓ ✓	FS4	DC1-32030NB-A20CE1 185778			
			✓ ✓ ✓		DC1-32030FB-A20CE1 185775			
						DC1-32046NB-A20CE1 185779		
						DC1-32046FB-A20CE1 185776		

Notes

¹⁾ Overload cycle: 150 % for 60 s every 600 s

²⁾ DC1-32...: at 230 V, 50 Hz/at 220 - 240 V, 60 Hz

DC1-34...: at 400 V, 50 Hz/at 440 - 480 V, 60 Hz

³⁾ for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz

⁴⁾ Rated operational current at an operating frequency of 16 kHz and an ambient air temperature of +50 °C

Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)} P kW	P HP	Fitted with Radio interference suppression filter Brake chopper 7-digital display assembly	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
PowerXL variable frequency drives DC1								
U ₀ 400 V AC, 3-phase / U ₂ 400 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 380 (-10%) - 480 (+10%) V								
2.2	0.75	1	- - ✓ ✓ - ✓	FS1	IP20/NEMA 0	DC1-342D2NN-A20CE1 185721		1 off 
							DC1-342D2FN-A20CE1 185743	
4.1	1.5	2	- - ✓ ✓ - ✓	FS2		DC1-344D1NN-A20CE1 185724		
							DC1-344D1FN-A20CE1 185746	
			- ✓ ✓ ✓ ✓ ✓			DC1-344D1NB-A20CE1 185727		
						DC1-344D1FB-A20CE1 185749		
5.8	2.2	3	- ✓ ✓ ✓ ✓ ✓			DC1-345D8NB-A20CE1 185730		
						DC1-345D8FB-A20CE1 185752		
9.5	4	5	- ✓ ✓ ✓ ✓ ✓			DC1-349D5NB-A20CE1 185733		
						DC1-349D5FB-A20CE1 185755		
14	5.5	10	- ✓ ✓ ✓ ✓ ✓	FS3		DC1-34014NB-A20CE1 185736		
							DC1-34014FB-A20CE1 185758	
18	7.5		- ✓ ✓ ✓ ✓ ✓			DC1-34018NB-A20CE1 185739		
						DC1-34018FB-A20CE1 185761		
24 ⁵⁾	11	15	- ✓ ✓ ✓ ✓ ✓		DC1-34024NB-A20CE1 185742			
					DC1-34024FB-A20CE1 185764			
30	15	20	- ✓ ✓ ✓ ✓ ✓	FS4	DC1-34030NB-A20CE1 185783			
						DC1-34030FB-A20CE1 185780		
39	18.5	25	- ✓ ✓ ✓ ✓ ✓		DC1-34039NB-A20CE1 185784			
					DC1-34039FB-A20CE1 185781			
46	22	30	- ✓ ✓ ✓ ✓ ✓		DC1-34046NB-A20CE1 185844			
					DC1-34046FB-A20CE1 185782			

Notes

¹⁾ Overload cycle: 150 % for 60 s every 600 s

²⁾ DC1-34...: at 400 V, 50 Hz/at 440 - 480 V, 60 Hz

³⁾ for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz

⁴⁾ Rated operational current at an operating frequency of 16 kHz and an ambient air temperature of +50 °C

⁵⁾ Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +50 °C

Rated operational current ^{1), 4)}	Assigned motor rating ^{1), 2), 3)}		Fitted with	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	I_e A	P kW						
PowerXL variable frequency drives DC1 U_e 115 V AC, single-phase / U_2 115 V AC, single-phase Mains voltage (50/60Hz) U_{LN} 110 (-10%) - 115 (+10%) V								
7	0.37	0.5	Radio interference suppression filter Brake chopper 7-digital display assembly Local controls	FS1	IP66/NEMA 4X	DC1-S17D0NN-A66CE1 186074 DC1-S17D0NN-A6SCE1 186075		1 off
10.5	0.55	0.75		FS2		DC1-S1011NB-A66CE1 186077 DC1-S1011NB-A6SCE1 186078		
U_e 230 V AC, 1-phase / U_2 230 V AC, single-phase Mains voltage (50/60Hz) U_{LN} 200 (-10%) - 240 (+10%) V								
4.3	0.37	0.5		FS1	IP66/NEMA 4X	DC1-S24D3NN-A66CE1 186080 DC1-S24D3NN-A6SCE1 186081 DC1-S24D3FN-A66CE1 186089 DC1-S24D3FN-A6SCE1 186090		
7	0.75	1		FS1		DC1-S27D0NN-A66CE1 186083 DC1-S27D0NN-A6SCE1 186084 DC1-S27D0FN-A66CE1 186092 DC1-S27D0FN-A6SCE1 186093		
10.5	1.1	1.5		FS2		DC1-S2011NB-A66CE1 186086 DC1-S2011NB-A6SCE1 186087 DC1-S2011FB-A66CE1 186095 DC1-S2011FB-A6SCE1 186096		

Notes

- 1) Overload cycle: 150 % for 60 s every 600 s
- 2) DC1-S1...: at 115 V, 50 Hz/at 110 - 120 V, 60 Hz
 DE1-34...:DC1-S2...: at 230 V, 50 Hz/at 220 - 240 V, 60 Hz
- 3) For AC motors with internal and external ventilation with 50/60 Hz without additional start capacitor
- 4) Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C

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Rated operational current ^{1), 4)} <i>I_e</i> A	Assigned motor rating ^{1), 2), 3)}		Fitted with Radio interference suppression filter Brake chopper 7-digital display assembly Local controls	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P kW	P HP						

PowerXL variable frequency drives DC1

U_e 115 V AC, single-phase / *U₂* 230 V AC, 3-phase
 The mains voltage of 115 V is raised to 230 V (output voltage) through an internal voltage double connection.
 Mains voltage (50/60Hz) *U_{LN}* 110 (-10%) - 115 (+10%) V

2.3	0.37	0.5	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-1D2D3NN-A66CE1 185766	1 off
			-	-	✓	✓			DC1-1D2D3NN-A6SCE1 185767	
4.3	0.75	1	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-1D4D3NN-A66CE1 185769	1 off
			-	-	✓	✓			DC1-1D4D3NN-A6SCE1 185770	
5.8	1.1	1.5	-	✓	✓	-	FS2	IP66/NEMA 4X	DC1-1D5D8NB-A66CE1 185772	1 off
			-	✓	✓	✓			DC1-1D5D8NB-A6SCE1 185773	

U_e 230 V AC, 1-phase / *U₂* 230 V AC, 3-phase
 Mains voltage (50/60Hz) *U_{LN}* 200 (-10%) - 240 (+10%) V

2.3	0.37	0.5	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-122D3NN-A66CE1 185786	1 off
			-	-	✓	✓			DC1-122D3NN-A6SCE1 185787	
			✓	-	✓	-			DC1-122D3FN-A66CE1 185804	
			✓	-	✓	✓			DC1-122D3FN-A6SCE1 185805	
4.3	0.75	1	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-124D3NN-A66CE1 185789	1 off
			-	-	✓	✓			DC1-124D3NN-A6SCE1 185790	
			✓	-	✓	-			DC1-124D3FN-A66CE1 185807	
			✓	-	✓	✓			DC1-124D3FN-A6SCE1 185808	
7	1.5	2	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-127D0NN-A66CE1 185792	1 off
			-	-	✓	✓			DC1-127D0NN-A6SCE1 185793	
			✓	-	✓	-			DC1-127D0FN-A66CE1 185810	
			✓	-	✓	✓			DC1-127D0FN-A6SCE1 185811	
			-	✓	✓	-	DC1-127D0NB-A66CE1 185795			
			-	✓	✓	✓	DC1-127D0NB-A6SCE1 185796			
			✓	✓	✓	-	DC1-127D0FB-A66CE1 185813			
			✓	✓	✓	✓	DC1-127D0FB-A6SCE1 185814			
10.5	2.2	3	-	✓	✓	-	FS1	IP66/NEMA 4X	DC1-12011NB-A66CE1 185798	1 off
			-	✓	✓	✓			DC1-12011NB-A6SCE1 185799	
			✓	✓	✓	-			DC1-12011FB-A66CE1 185816	
			✓	✓	✓	✓			DC1-12011FB-A6SCE1 185817	
15.3 ⁵⁾	4	5	-	✓	✓	-	FS1	IP66/NEMA 4X	DC1-12015NB-A66CE1 185801	1 off
			-	✓	✓	✓			DC1-12015NB-A6SCE1 185802	

Notes

- 1) Overload cycle: 150 % for 60 s every 600 s
- 2) at 230 V, 50 Hz/at 220 - 240 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C
- 5) Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C

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Rated operational current ^{1), 4)}	Assigned motor rating ^{1), 2), 3)}		Fitted with				Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	I _e A	P kW	P HP	Radio interference suppression filter	Brake chopper	7-digital display assembly					
PowerXL variable frequency drives DC1											
U _e 230 V AC, 3-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V											
2.3	0.37	0.5	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-322D3NN-A66CE1 185819		1 off  
			-	-	✓	✓			DC1-322D3NN-A6SCE1 185820		
4.3	0.75	1	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-324D3NN-A66CE1 185822		
			-	-	✓	✓			DC1-324D3NN-A6SCE1 185823		
7	1.5	2	-	-	✓	-	FS2	IP66/NEMA 4X	DC1-327D0NN-A66CE1 185825		
			-	-	✓	✓			DC1-327D0NN-A6SCE1 185826		
			-	✓	✓	-	DC1-327D0NB-A66CE1 185828				
			-	✓	✓	✓	DC1-327D0NB-A6SCE1 185829				
			✓	✓	✓	-	DC1-327D0FB-A66CE1 185837				
			✓	✓	✓	✓	DC1-327D0FB-A6SCE1 185838				
10.5	2.2	3	-	✓	✓	-	FS2	IP66/NEMA 4X	DC1-32011NB-A66CE1 185831		
			-	✓	✓	✓			DC1-32011NB-A6SCE1 185832		
			✓	✓	✓	-			DC1-32011FB-A66CE1 185840		
			✓	✓	✓	✓			DC1-32011FB-A6SCE1 185841		
18 ⁵⁾	4	5	-	✓	✓	-	FS3	IP66/NEMA 4X	DC1-32018NB-A66CE1 185834		
			-	✓	✓	✓			DC1-32018NB-A6SCE1 185835		
			✓	✓	✓	-			DC1-32018FB-A66CE1 185843		
			✓	✓	✓	✓			DC1-32018FB-A6SCE1 185720		

Notes

- 1) Overload cycle: 150 % for 60 s every 600 s
- 2) at 230 V, 50 Hz/at 220 - 240 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C
- 5) Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C

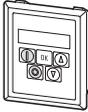
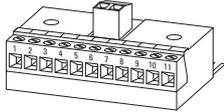
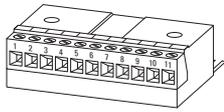
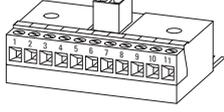
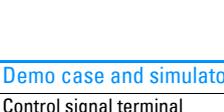
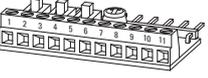
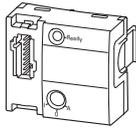
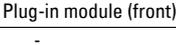
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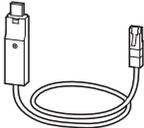
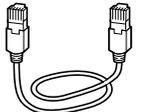
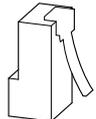
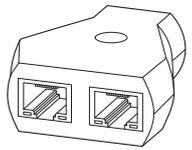
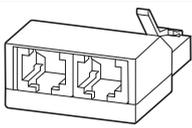
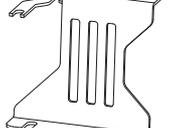
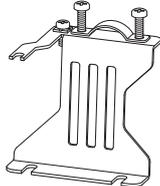
Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)}		Fitted with				Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P kW	P HP	Radio interference suppression filter	Brake chopper	7-digital display assembly	Local controls					
PowerXL variable frequency drives DC1											
U _e 400 V AC, 3-phase / U ₂ 400 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 380 (-10%) - 480 (+10%) V											
2.2	0.75	1	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-342D2NN-A66CE1 185722		1 off  
			-	-	✓	✓			DC1-342D2NN-A6SCE1 185723		
			✓	-	✓	-			DC1-342D2FN-A66CE1 185744		
			✓	-	✓	✓			DC1-342D2FN-A6SCE1 185745		
4.1	1.5	2	-	-	✓	-	FS1	IP66/NEMA 4X	DC1-344D1NN-A66CE1 185725		
			-	-	✓	✓			DC1-344D1NN-A6SCE1 185726		
			✓	-	✓	-			DC1-344D1FN-A66CE1 185747		
			✓	-	✓	✓			DC1-344D1FN-A6SCE1 185748		
			-	✓	✓	-	FS2		DC1-344D1NB-A66CE1 185728		
			-	✓	✓	✓			DC1-344D1NB-A6SCE1 185729		
			✓	✓	✓	-			DC1-344D1FB-A66CE1 185750		
			✓	✓	✓	✓			DC1-344D1FB-A6SCE1 185751		
5.8	2.2	3	-	✓	✓	-			DC1-345D8NB-A66CE1 185731		
			-	✓	✓	✓			DC1-345D8NB-A6SCE1 185732		
			✓	✓	✓	-			DC1-345D8FB-A66CE1 185753		
			✓	✓	✓	✓			DC1-345D8FB-A6SCE1 185754		
9.5	4	5	-	✓	✓	-			DC1-349D5NB-A66CE1 185734		
			-	✓	✓	✓			DC1-349D5NB-A6SCE1 185735		
			✓	✓	✓	-			DC1-349D5FB-A66CE1 185756		
			✓	✓	✓	✓			DC1-349D5FB-A6SCE1 185757		
14 ⁵⁾	5.5	10	-	✓	✓	-	FS3		DC1-34014NB-A66CE1 185737		
			-	✓	✓	✓			DC1-34014NB-A6SCE1 185738		
			✓	✓	✓	-			DC1-34014FB-A66CE1 185759		
			✓	✓	✓	✓			DC1-34014FB-A6SCE1 185760		
18 ⁵⁾	7.5	10	-	✓	✓	-			DC1-34018NB-A66CE1 185740		
			-	✓	✓	✓			DC1-34018NB-A6SCE1 185741		
			✓	✓	✓	-			DC1-34018FB-A66CE1 185762		
			✓	✓	✓	✓			DC1-34018FB-A6SCE1 185763		

Notes

- 1) Overload cycle: 150 % for 60 s every 600 s
- 2) at 400 V, 50 Hz/at 440 - 480 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C
- 5) Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C

  Information relevant for export to North America → Page 17

Description	Length	For use with	Part no. Article no.	Price see price list	Std. pack
External keypad					
 With 7-digit display assembly Front IP54 With approx. 3 m-long, plug-in connection cable (RJ45, 8-pin)	3	DE1, DE11, DC1, DA1	DX-KEY-LED2 186946		1 off  
with OLED display Front IP54 Multilingual With approx. 3 m-long, plug-in connection cable (RJ45, 8-pin)	3	DC1, DA1	DX-KEY-OLED 169133		
Expansion modules					
Output expansion					
 2 relay outputs (N/O, 250 V AC/220 V DC, max. 1 A) 1 analog output (0 - +10 V, max. 20 mA) For connecting to the control signal terminals on the DC1	-	DC1	DXC-EXT-2R01A0 169030		1 off  
 2 relay outputs (N/O, 250 V AC/220 V DC, max. 1 A) For connecting to the control signal terminals on the DC1	-	DC1	DXC-EXT-2R0 169031		
Coupling module					
 115-V-AC input (electrically isolated) for 4 digital inputs For connecting to the control signal terminals on the DC1	-	DC1	DXC-EXT-IO110 169032		1 off  
 230-V-AC input (electrically isolated) for 4 digital inputs For connecting to the control signal terminals on the DC1	-	DC1	DXC-EXT-IO230 169033		
Demo case and simulator					
Control signal terminal simulator					
 Commissioning and testing simulator 3 digital inputs (+24 V) 1 relay output (max. 30 V DC) 3 microswitches 1 reference value potentiometer (0 - +10 V / = 0 - f _{max}) For connecting to the control signal terminals on the DC1	-	DC1	DXC-EXT-LOCSIM 169034		1 off  
SmartWire-DT Modules					
 Plug-in module (front) with slot for SWD4-8SF2-5 external device plug	-	DE1, DE11, DC1 (IP20)	DX-NET-SWD3 169131		1 off  
Fieldbus modules					
 Plug-in module (front)	-	DE1, DE11, DC1	DX-NET-ETHERNET2-2 184969		1 off
PC communication					
 Parameter storage unit and Bluetooth communication stick For storage, copying parameters, and/or transferring parameters to a PC with the drivesConnect software via Bluetooth With 2 function keys for uploading and downloading parameters with configuration memory	-	-	DX-COM-STICK2 186947		1 off  

Description	Length	For use with	Part no. Article no.	Price see price list	Std. pack	
PC communication						
Interface converter For directly connecting the variable-frequency drive to a computer with drivesConnect software						
	Interface converter USB/RS485 with connection cable, RJ45, 8 pole electrically isolated 1 x SUB-D plug, 9-pole Terminal strip, 5-terminal Status-LED	-	DE1, DE11, DC1, DA1	DX-COM-PCKIT 169135	1 off  	
	Interface converter USB/RS485 with connection cable, RJ45, 8 pole electrically isolated	3	DE1, DE11, DC1, DA1	DX-CBL-PC-3M0 744-A3036-00P	1 off	
connection cable						
	Patch cord with RJ45 plugs, 8 pole	0.5 1 3	DE1, DE11, DC1, DA1	DX-CBL-RJ45-0M5 169137 DX-CBL-RJ45-1M0 169138 DX-CBL-RJ45-3M0 169139	1 off  	
Bus terminating resistor						
	RJ45 8 pole Connection to CANopen® (pin 1/2, 124 Ω) or to Modbus RTU (pin 7/8, 120 Ω)	-	easyNet DX-SPL-RJ45-2SL-1PL	EASY-NT-R 256281	2 off  	
Splitter						
	RJ45, 8-pin, 3 sockets	-	DX-CBL-RJ45...	DX-SPL-RJ45-3SL 169141	1 off  	
	RJ45, 8-pin, 2 sockets/1 plug	-	DE1, DE11, DC1, DA1	DX-SPL-RJ45-2SL1PL 169142		
	RJ45, 8-pin, 2 sockets/1 plug for CANopen® and Modbus RTU	-	DE1, DE11, DC1 (IP20), DA1 (IP20)	DX-SPL-RJ45 179313	1 off	
	RJ45, 8 pole, 1 socket/1 plug for CANopen® and Modbus RTU With 2 resistors, 120 Ω	-	DE1, DE11, DC1 (IP20), DA1 (IP20)	DX-SPL-RJ45-TERM 179314		
mounting accessories						
mounting adapter With gland plates						
	For installing the connection cables on the mains side	Size FS1 Size FS2 Size FS3	- - -	DC1 DC1, DA1, DL1 DC1, DA1, DL1	DX-EMC-MNT-1N 172925 DX-EMC-MNT-2N 172927 DX-EMC-MNT-3N 172929	1 off
	For installing the connection cables on the motor side	Size FS1 Size FS2 Size FS3	- - -	DC1 DC1, DA1, DL1 DC1, DA1, DL1	DX-EMC-MNT-1M 172926 DX-EMC-MNT-2M 172928 DX-EMC-MNT-3M 172930	

 	Information relevant for export to North America
Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification Suitable for	UL listed, certified by UL for use in Canada Branch circuits

EASY-NT-R:	
Product Standards	IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking
UL File No.	E135462
UL Category Control No.	NRAQ
CSA File No.	012528
CSA Class No.	2258-02
North America Certification	UL listed, CSA certified
Degree of Protection	toIEC: IP20, UL/CSA Type: -



PowerXL Variable Frequency Drive DA1 Advanced Machinery Drive

The PowerXL DA1 variable frequency drive, designed for the machine and system building industry, is characterized by its enormous flexibility in terms of communications protocols, a function block editor (PLC) that makes it possible to configure the drive as necessary for specific applications, and a powerful vector control mode for highly dynamic applications.

Performance range:

- 0.75 ... 2.2 kW (U_g : 1~ 230 V, U_2 : 3~ 230 V)
- 0.75 ... 75 kW (U_g : 3~ 230 V, U_2 : 3~ 230 V)
- 0.75 ... 250 kW (U_g : 3~ 400 V, U_2 : 3~ 400 V)
- 0.75 ... 110 kW (U_g : 3~ 575 V, U_2 : 3~ 575 V)

Features:

- Large overload capability: 150% for 60 seconds, 200% for 4 seconds
- Integrated Modbus RTU and CANopen
- Ambient air temperature up to 50 °C without derating
- Integrated EMC filter
- Integrated braking transistor
- Various I/O expansions
- V/F control, vector SL and CL, PM motor, BLDC motor, SynRel motor
- Optional field bus connections
- Safe Torque Off (STO, SIL 2/PI d)
- Optional high-resolution OLED display
- International standards (CE, UL, cUL, RCM, RoHS, EAC, UkrSEPRO, DNV (754–757))

Accessories:

- SmartWire-DT connection
- Communication modules (PROFIBUS, PROFINET, Ethernet/IP, EtherCAT, DeviceNet, etc.)
- I/O expansions
- External keypad
- Mains chokes
- Motor chokes
- Sine filters
- Braking resistances
- drivesConnect parameter configuration software
- External EMC filter

Applications:

- Winding machines
- Respooler machines
- Coating systems
- Compressors
- Mills, roller mills, shredders
- Extruders
- Cranes and lifting systems
- Marine
- Distributed applications (IP66)

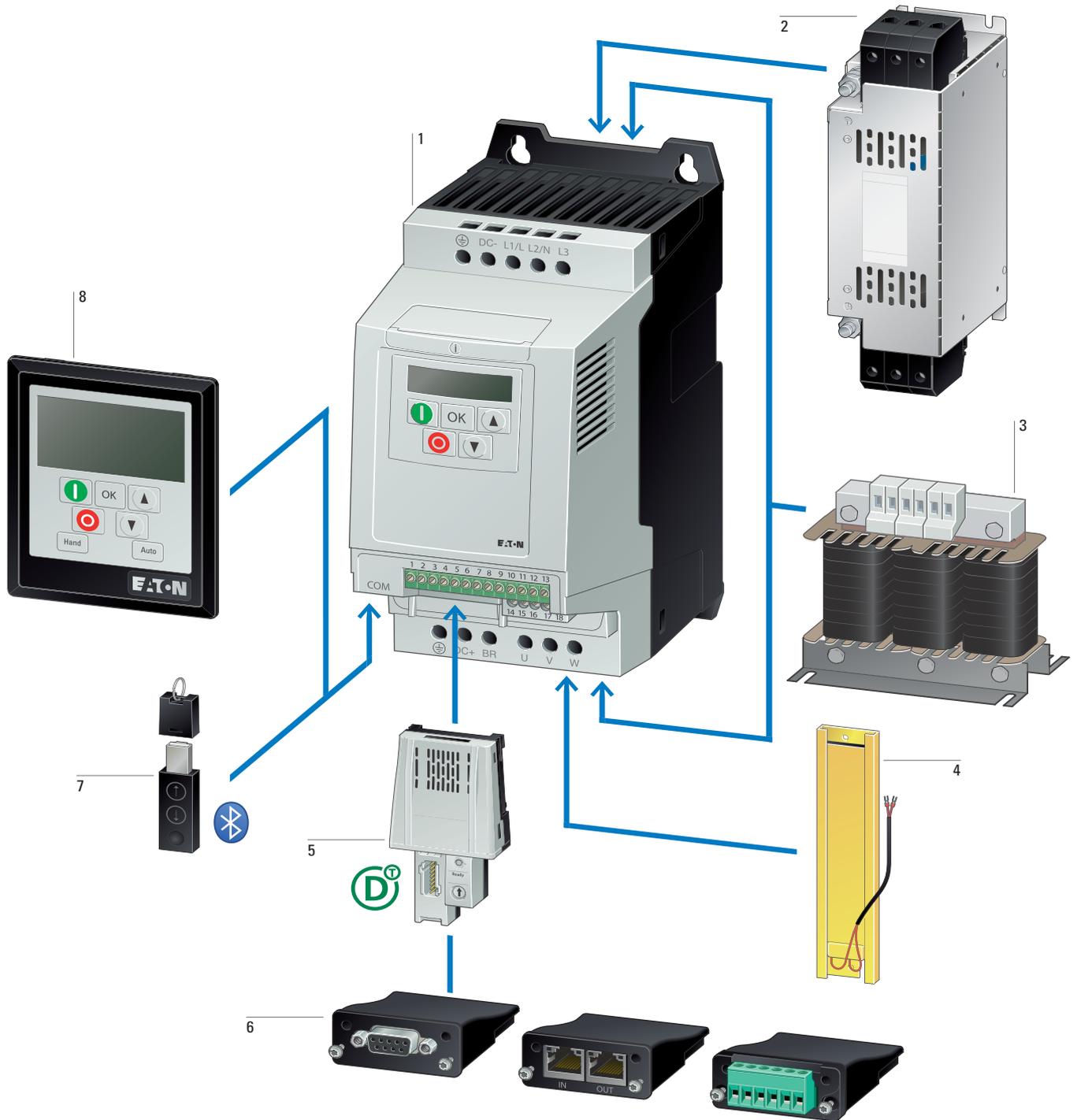


System overview	30
Key to type references	31
UL/CSA	31
Sizes and degree of protection	32
Ordering	
Variable frequency drives DA1, IP20/IP55	33
Variable frequency drives DA1, IP66	36
Accessories	38

DA1

System overview

DA1 with IP20 degree of protection



DA1 variable frequency drives 1

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External radio interference suppression filter 2

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Mains choke, motor choke, sine filter 3

→ page 60, → page 61

Braking resistance 4

→ page 56

SmartWire-DT module 5

→ page 38

Communication modules, expansion modules 6

→ page 38

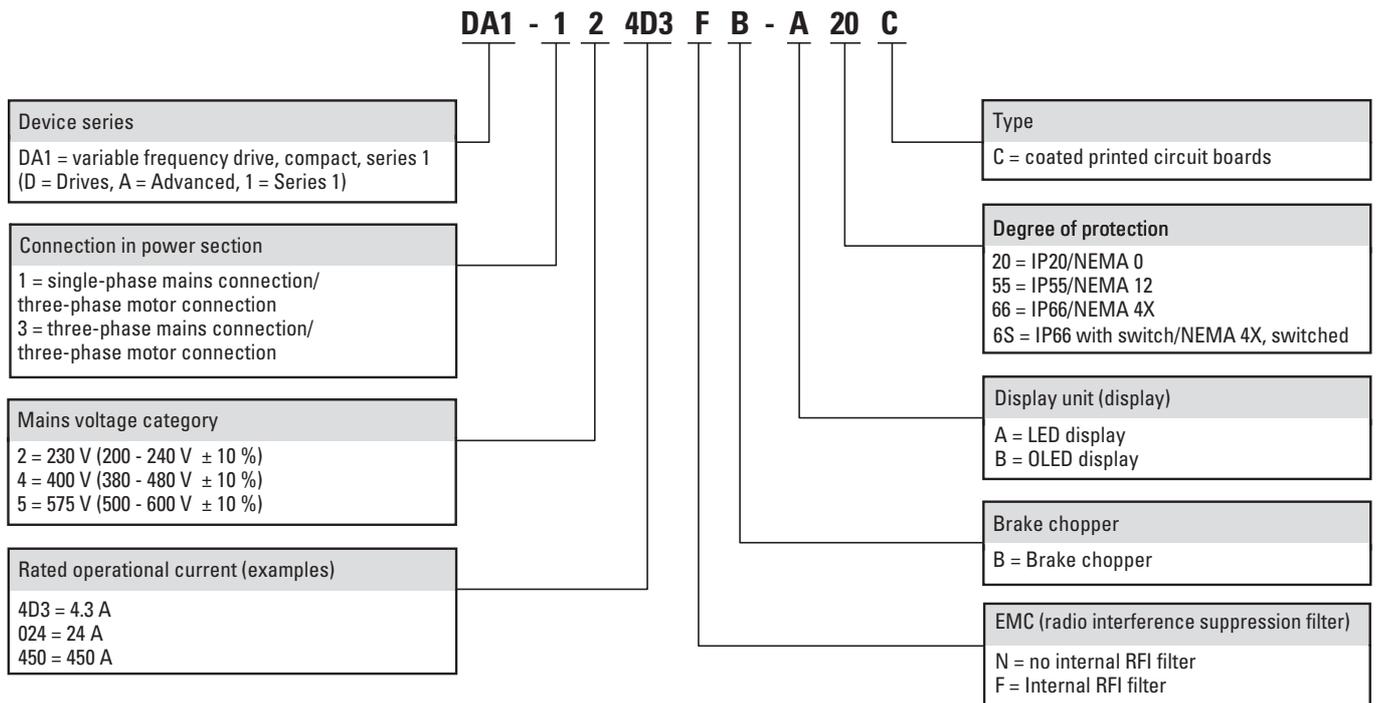
Memory and Bluetooth communication stick 7

→ page 39

External keypad 8

→ page 38

Key to type references



DA1

UL/CSA

Information relevant for export to North America

Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, certified by UL for use in Canada
Suitable for	Branch circuits
Max. Voltage Rating	3~ 240 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey) 3~ 480 V AC IEC: TN-S UL/CSA: "Y" (Solidly Grounded Wey)

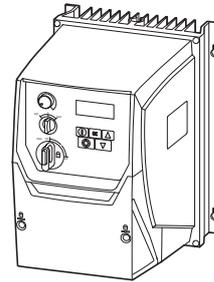
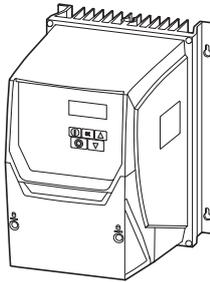
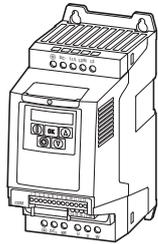
Sizes and degree of protection

Frame size Degree of Protection
IP20/NEMA 0

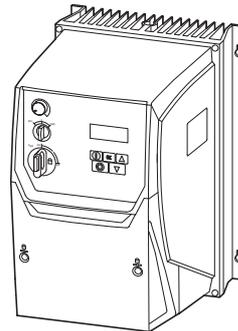
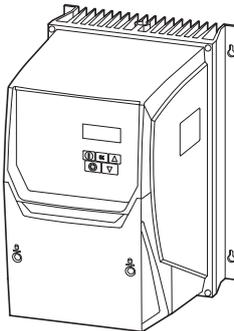
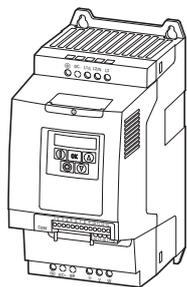
IP66/NEMA 4X

IP66/NEMA 4X
Local controls

FS2



FS3

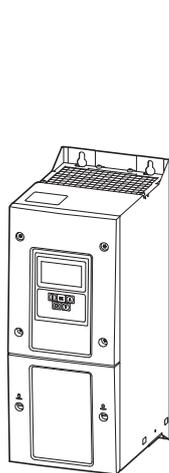


Frame size Degree of Protection
IP55/NEMA 12

Frame size Degree of Protection
IP20/NEMA 0

FS4-FS7

FS8

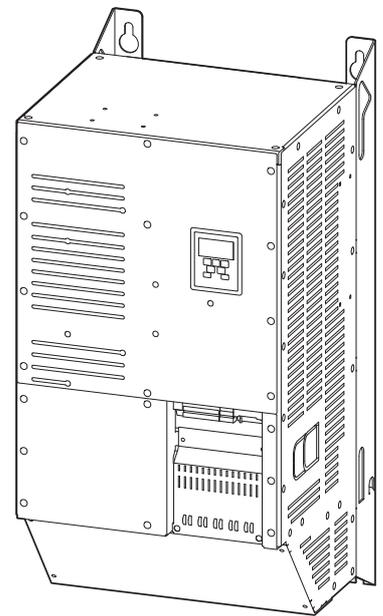


FS4

...



FS7



Note: Figures are not true to scale

Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)}		Fitted with							Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P kW	P HP	Radio interference suppression filter	Brake chopper	DC link choke	7-digital display assembly	OLED display	Additional PCB protection	Local controls					
PowerXL variable frequency drives DA1														
U _e 230 V AC, 1-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V														
4.3	0.75	1	✓	✓	-	✓	-	✓	-	FS2	IP20/NEMA 0	DA1-124D3FB-A20C 169078	1 off  	
7	1.5	2	✓	✓	-	✓	-	✓	-			DA1-127D0FB-A20C 169081		
10.5	2.2	3	✓	✓	-	✓	-	✓	-			DA1-12011FB-A20C 169084		
U _e 230 V AC, 3-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V														
4.3	0.75	1	✓	✓	-	✓	-	✓	-	FS2	IP20/NEMA 0	DA1-324D3FB-A20C 169087	1 off  	
7	1.5	2	✓	✓	-	✓	-	✓	-			DA1-327D0FB-A20C 169090		
10.5	2.2	3	✓	✓	-	✓	-	✓	-			DA1-32011FB-A20C 169093		
18	4	5	✓	✓	-	✓	-	✓	-	FS3		DA1-32018FB-A20C 169096		
24	5.5	7.5	✓	✓	-	✓	-	✓	-			DA1-32024FB-A20C 169099		
24 ⁵⁾			✓	✓	-	-	✓	✓	-	FS4	IP55/NEMA 12	DA1-32024FB-B55C 169361		
30	7.5	10	✓	✓	-	-	✓	✓	-			DA1-32030FB-B55C 169362		
46	11	15	✓	✓	-	-	✓	✓	-			DA1-32046FB-B55C 169363		
61	15	20	✓	✓	✓	-	✓	✓	-	FS5		DA1-32061FB-B55C 169364		
72	18.5	25	✓	✓	✓	-	✓	✓	-			DA1-32072FB-B55C 169365		
90 ⁵⁾	22	30	✓	✓	✓	-	✓	✓	-	FS6		DA1-32090FB-B55C 169367		
110 ⁵⁾	30	40	✓	✓	✓	-	✓	✓	-			DA1-32110FB-B55C 169369		
150 ⁵⁾	45	50	✓	✓	✓	-	✓	✓	-			DA1-32150FB-B55C 169371		
180 ⁵⁾	55	60	✓	✓	✓	-	✓	✓	-			DA1-32180FB-B55C 169373		
202 ⁵⁾		75	✓	✓	✓	-	✓	✓	-	FS7		DA1-32202FB-B55C 169375		
248 ⁵⁾	75	100	✓	✓	✓	-	✓	✓	-			DA1-32248FB-B55C 169377		

Notes

- 1) Overload cycle for 60 s every 600 s
- 2) at 230 V, 50 Hz/at 220 - 240 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) IP20/NEMA 0: Rated operational current at an operating frequency of 16 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C
- 5) IP20/NEMA 0: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C

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DA1

Rated operational current ^{1), 4)} <i>I_e</i> A	Assigned motor rating ^{1), 2), 3)}		Fitted with								Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P kW	P HP	Radio interference suppression filter	Brake chopper	DC link choke	7-digital display assembly	OLED display	Additional PCB protection	Local controls						
PowerXL variable frequency drives DA1															
U _e 400 V AC, 3-phase / U ₂ 400 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 380 (-10%) - 480 (+10%) V															
2.2	0.75	1	✓	✓	-	✓	-	✓	-	FS2	IP20/NEMA 0	DA1-342D2FB-A20C 169117		1 off 	
4.1	1.5	2	✓	✓	-	✓	-	✓	-						
5.8	2.2	3	✓	✓	-	✓	-	✓	-						
9.5	4	5	✓	✓	-	✓	-	✓	-						
14	5.5	7.5	✓	✓	-	✓	-	✓	-						
18	7.5	10	✓	✓	-	✓	-	✓	-	FS3	IP55/NEMA 12	DA1-34014FB-A20C 169057			
24	11	15	✓	✓	-	✓	-	✓	-						
30	15	20	✓	✓	-	-	✓	✓	-	FS4	IP55/NEMA 12	DA1-34024FB-A20C 169063			
39	18.5	25	✓	✓	-	-	✓	✓	-						
46	22	30	✓	✓	-	-	✓	✓	-						
61	30	40	✓	✓	✓	-	✓	✓	-						
72	37	50	✓	✓	✓	-	✓	✓	-						
90 ⁵⁾	45	60	✓	✓	✓	-	✓	✓	-	FS5	IP55/NEMA 12	DA1-34061FB-B55C 169394			
110 ⁵⁾	55	75	✓	✓	✓	-	✓	✓	-						
150 ⁵⁾	75	100	✓	✓	✓	-	✓	✓	-						
180 ⁵⁾	90	125	✓	✓	✓	-	✓	✓	-						
202 ⁵⁾	110	150	✓	✓	✓	-	✓	✓	-						
240 ⁵⁾	132	200	✓	✓	✓	-	✓	✓	-	FS6	IP55/NEMA 12	DA1-34090FB-B55C 169397			
302 ⁵⁾	160	250	✓	✓	✓	-	✓	✓	-						
370 ⁵⁾	200	300	✓	✓	-	-	✓	✓	-						
450 ⁵⁾	250	350	✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-	FS7	IP20/NEMA 0	DA1-34022FB-B55C 169405			
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-	FS8	IP20/NEMA 0	DA1-34370FB-B20C 169219			
			✓	✓	-	-	✓	✓	-						
			✓	✓	-	-	✓	✓	-			DA1-34450FB-B20C 169221			

Notes

- 1) Overload cycle for 60 s every 600 s
- 2) at 400 V, 50 Hz/at 440 - 480 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) IP20/NEMA 0: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C
- 5) IP20/NEMA 0: Rated operational current at an operating frequency of 4 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at an operating frequency of 4 kHz and an ambient air temperature of +40 °C

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Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)}		Fitted with							Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
	P kW	P HP	Radio interference suppression filter	Brake chopper	DC link choke	7-digit display assembly	OLED display	Additional PCB protection	Local controls					
PowerXL variable frequency drives DA1														
U _e 500 V AC, 3-phase / U ₂ 500 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 500 (-10%) - 600 (+10%) V														
2.1	0.75	1	-	✓	-	✓	-	✓	-	FS2	IP20/NEMA 0	DA1-352D1NB-A20C 177034	1 off  	
3.1	1.5	2	-	✓	-	✓	-	✓	-					
4.1	2.2	3	-	✓	-	✓	-	✓	-					
6.5	4	5	-	✓	-	✓	-	✓	-					
9	5.5	7.5	-	✓	-	✓	-	✓	-					
12	7.5	10	-	✓	-	✓	-	✓	-	FS3				
17	11	15	-	✓	-	✓	-	✓	-	FS4	IP55/NEMA 12	DA1-35012NB-A20C 177039		
22	15	20	-	✓	-	✓	-	✓	-			DA1-35017NB-A20C 177040		
28	18.5	25	-	✓	-	-	✓	✓	-	FS4	DA1-35022NB-A20C 177041			
34	22	30	-	✓	-	-	✓	✓	-	FS4	DA1-35022NB-B55C 176965			
43	30	40	-	✓	✓	-	✓	✓	-	FS5	DA1-35028NB-B55C 176966			
54	37	50	-	✓	✓	-	✓	✓	-	FS5	DA1-35034NB-B55C 176967			
65	45	60	-	✓	✓	-	✓	✓	-	FS5	DA1-35043NB-B55C 176968			
78 ⁵⁾	55	75	-	✓	✓	-	✓	✓	-	FS6	DA1-35054NB-B55C 176969			
105 ⁵⁾	75	100	-	✓	✓	-	✓	✓	-	FS6	DA1-35065NB-B55C 176970			
130 ⁵⁾	90	125	-	✓	✓	-	✓	✓	-	FS6	DA1-35078NB-B55C 176971			
150 ⁵⁾	110	150	-	✓	✓	-	✓	✓	-	FS6	DA1-35105NB-B55C 176972			
										FS6	DA1-35130NB-B55C 176973			
										FS6	DA1-35150NB-B55C 176974			

Notes

- 1) Overload cycle for 60 s every 600 s
- 2) at 500 V, 50 Hz/at 550 - 600 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) IP20/NEMA 0: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C
- 5) IP20/NEMA 0: Rated operational current at an operating frequency of 4 kHz and an ambient air temperature of +50 °C
DE1-34...:IP55/NEMA 12: Rated operational current at an operating frequency of 4 kHz and an ambient air temperature of +40 °C

  **Information relevant for export to North America → Page 31**

DA1

Rated operational current ^{1), 4)} <i>I_e</i> A	Assigned motor rating ^{1), 2), 3)}		Fitted with							Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack		
	P kW	P HP	Radio interference suppression filter	Brake chopper	DC link choke	7-digital display assembly	OLED display	Additional PCB protection	Local controls							
PowerXL variable frequency drives DA1																
U _e 230 V AC, 1-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V																
4.3	0.75	1	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-124D3FB-B66C 169347		1 off  		
			✓	✓	-	-	✓	✓	✓			DA1-124D3FB-B6SC 169348				
7	1.5	2	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-127D0FB-B66C 169349			1 off  	
			✓	✓	-	-	✓	✓	✓			DA1-127D0FB-B6SC 169350				
10.5	2.2	3	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-12011FB-B66C 169351				1 off  
			✓	✓	-	-	✓	✓	✓			DA1-12011FB-B6SC 169352				
U _e 230 V AC, 3-phase / U ₂ 230 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 200 (-10%) - 240 (+10%) V																
4.3	0.75	1	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-324D3FB-B66C 169353		1 off  		
			✓	✓	-	-	✓	✓	✓			DA1-324D3FB-B6SC 169354				
7	1.5	2	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-327D0FB-B66C 169355			1 off  	
			✓	✓	-	-	✓	✓	✓			DA1-327D0FB-B6SC 169356				
10.5	2.2	3	✓	✓	-	-	✓	✓	-	FS2	IP66/NEMA 4X	DA1-32011FB-B66C 169357				1 off  
			✓	✓	-	-	✓	✓	✓			DA1-32011FB-B6SC 169358				
18	4	5	✓	✓	-	-	✓	✓	-	FS3	IP66/NEMA 4X	DA1-32018FB-B66C 169359		1 off  		
			✓	✓	-	-	✓	✓	✓			DA1-32018FB-B6SC 169360				

Notes

- 1) Overload cycle for 60 s every 600 s
- 2) at 230 V, 50 Hz/at 220 - 240 V, 60 Hz
- 3) for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- 4) Rated operational current at a switching frequency of 16 kHz and an ambient air temperature of +40 °C

  **Information relevant for export to North America → Page 31**

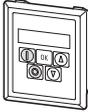
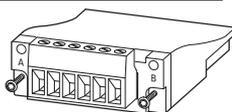
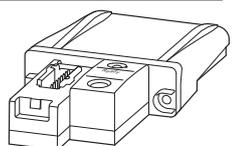
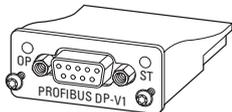
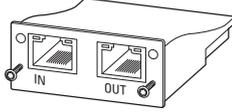
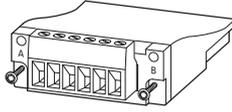
Rated operational current ^{1), 4)} I _e A	Assigned motor rating ^{1), 2), 3)} P kW P HP	Fitted with	Frame size	Degree of Protection	Part no. Article no.	Price see price list	Std. pack
		Radio interference suppression filter Brake chopper DC link choke 7-digital display assembly OLED display Additional PCB protection Local controls					
PowerXL variable frequency drives DA1							
U _e 400 V AC, 3-phase / U ₂ 400 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 380 (-10%) - 480 (+10%) V							
2.2	0.75	1	✓ ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-342D2FB-B66C 169378	1 off  
			✓ ✓ - - ✓ ✓ ✓			DA1-342D2FB-B66SC 169379	
4.1	1.5	2	✓ ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-344D1FB-B66C 169380	
			✓ ✓ - - ✓ ✓ ✓			DA1-344D1FB-B66SC 169381	
5.8	2.2	3	✓ ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-345D8FB-B66C 169382	
			✓ ✓ - - ✓ ✓ ✓			DA1-345D8FB-B66SC 169383	
9.5	4	5	✓ ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-349D5FB-B66C 169384	
			✓ ✓ - - ✓ ✓ ✓			DA1-349D5FB-B66SC 169385	
14	5.5	7.5	✓ ✓ - - ✓ ✓ -	FS3	IP66/NEMA 4X	DA1-34014FB-B66C 169386	
			✓ ✓ - - ✓ ✓ ✓			DA1-34014FB-B66SC 169387	
18	7.5	10	✓ ✓ - - ✓ ✓ -	FS3	IP66/NEMA 4X	DA1-34018FB-B66C 169388	
			✓ ✓ - - ✓ ✓ ✓			DA1-34018FB-B66SC 169389	
U _e 500 V AC, 3-phase / U ₂ 500 V AC, 3-phase Mains voltage (50/60Hz) U _{LN} 500 (-10%) - 600 (+10%) V							
2.1	0.75	1	- ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-352D1NB-B66C 176984	1 off  
			- ✓ - - ✓ ✓ ✓			DA1-352D1NB-B66SC 177012	
3.1	1.5	2	- ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-353D1NB-B66C 176985	
			- ✓ - - ✓ ✓ ✓			DA1-353D1NB-B66SC 177013	
4.1	2.2	3	- ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-354D1NB-B66C 176986	
			- ✓ - - ✓ ✓ ✓			DA1-354D1NB-B66SC 177014	
6.5	4	5	- ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-356D5NB-B66C 176987	
			- ✓ - - ✓ ✓ ✓			DA1-356D5NB-B66SC 177015	
9	5.5	7.5	- ✓ - - ✓ ✓ -	FS2	IP66/NEMA 4X	DA1-359D0NB-B66C 176988	
			- ✓ - - ✓ ✓ ✓			DA1-359D0NB-B66SC 177016	
12	7.5	10	- ✓ - - ✓ ✓ -	FS3	IP66/NEMA 4X	DA1-35012NB-B66C 176989	
			- ✓ - - ✓ ✓ ✓			DA1-35012NB-B66SC 177017	
17	11	15	- ✓ - - ✓ ✓ -	FS3	IP66/NEMA 4X	DA1-35017NB-B66C 176990	
			- ✓ - - ✓ ✓ ✓			DA1-35017NB-B66SC 177018	

Notes

- ¹⁾ Overload cycle for 60 s every 600 s
- ²⁾ DA1-34...: at 400 V, 50 Hz/at 440 - 480 V, 60 Hz/DA1-35...: at 500 V, 50 Hz/at 550 - 600 V, 60 Hz
- ³⁾ for normal internally and externally ventilated 4 pole, three-phase asynchronous motors with 1500 rpm⁻¹ at 50 Hz or 1800 min⁻¹ at 60 Hz
- ⁴⁾ Rated operational current at a switching frequency of 8 kHz and an ambient air temperature of +40 °C

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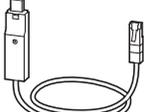
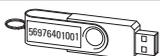
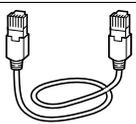
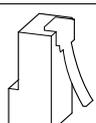
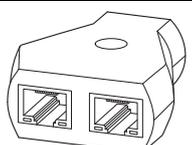
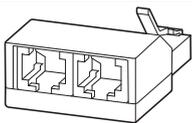
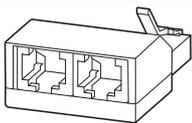
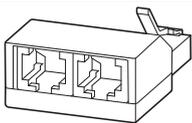
DA1

	Description	Length m	For use with	Part no. Article no.	Price see price list	Std. pack
External keypad						
	With 7-digit display assembly Front IP54 With approx. 3 m-long, plug-in connection cable (RJ45, 8-pin)	3	DE1, DE11, DC1, DA1	DX-KEY-LED2 186946		1 off  
	with OLED display Front IP54 Multilingual With approx. 3 m-long, plug-in connection cable (RJ45, 8-pin)	3	DC1, DA1	DX-KEY-OLED 169133		
Expansion modules						
	Output expansion Plug-in module with plug-in terminal block, 5 pole 3 relay outputs (N/O, 250 V AC, max. 6 A/ 30 V DC, max. 5 A)	-	DA1	DXA-EXT-3RO 169121		1 off  
	I/O expansion Plug-in module with plug-in terminal blocks, 6 pole 3 digital inputs (+24 V) 1 relay output (N/O, 250 V AC, max. 6 A/ 30 V DC, max. 5 A)	-	DA1	DXA-EXT-3DI1RO 169036		
	Encoder module Plug-in module with plug-in terminal block, 5 pole 2-channel max. 500 kHz 5 V TTL, A & B, /A & /B, 5 V DC, max. 200 mA 24 V HTL, A & B, /A & /B, 24 V DC, external power supply required, max. 30 V DC	-	DA1	DXA-EXT-ENCOD 169035		
SmartWire-DT Modules						
	Plug-in module with slot for SWD4-8SF2-5 external device plug	-	DA1 (IP20, IP55)	DX-NET-SWD1 169129		1 off  
Fieldbus modules						
	PROFIBUS-DP SUB-D socket, 9-pole	-	DA1	DX-NET-PROFIBUS 169124		1 off  
	PROFINET 2 x RJ45, 8 pole Plug-in module	-	DA1	DX-NET-PROFINET-2 169125		
	Modbus TCP 2 x RJ45, 8 pole Plug-in module	-	DA1	DX-NET-MODBUSTCP-2 169126		
	EtherNet-IP 2 x RJ45, 8 pole Plug-in module	-	DA1	DX-NET-ETHERNET-2 169122		
	EtherCAT 2 x RJ45, 8 pole Plug-in module	-	DA1	DX-NET-ETHERCAT-2 169127		
	DeviceNet Plug-in module with plug-in terminal blocks, 6 pole	-	DA1	DX-NET-DEVICENET 169123		

  **Information relevant for export to North America**

Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, certified by UL for use in Canada
Suitable for	Branch circuits

DA1

Description	Length m	For use with	Part no. Article no.	Price see price list	Std. pack
PC communication					
Parameter storage unit and Bluetooth communication stick					
 <p>For storage, copying parameters, and/or transferring parameters to a PC with the drivesConnect software via Bluetooth With 2 function keys for uploading and downloading parameters with configuration memory</p>	-	-	DX-COM-STICK2 186947		1 off 
Interface converter For directly connecting the variable-frequency drive to a computer with drivesConnect software					
 <p>Interface converter USB/RS485 with connection cable, RJ45, 8 pole electrically isolated 1 x SUB-D plug, 9-pole Terminal strip, 5-terminal Status-LED</p>	-	DE1, DE11, DC1, DA1	DX-COM-PCKIT 169135		1 off 
 <p>Interface converter USB/RS485 with connection cable, RJ45, 8 pole electrically isolated</p>	3	DE1, DE11, DC1, DA1	DX-CBL-PC-3M0 744-A3036-00P		1 off
License Keys to activate the function block editor in the DrivesConnect software					
 <p>USB flash drive</p>	-	DA1	DX-COM-SOFT 169136		
connection cable					
 <p>Patch cord with RJ45 plugs, 8 pole</p>	0.5 1 3	DE1, DE11, DC1, DA1	DX-CBL-RJ45-0M5 169137 DX-CBL-RJ45-1M0 169138 DX-CBL-RJ45-3M0 169139		1 off 
Bus terminating resistor					
 <p>RJ45 8 pole Connection to CANopen® (pin 1/2, 124 Ω) or to Modbus RTU (pin 7/8, 120 Ω)</p>	-	easyNet DX-SPL-RJ45-2SL-1PL	EASY-NT-R 256281		2 off 
Splitter					
 <p>RJ45, 8-pin, 3 sockets</p>	-	DX-CBL-RJ45...	DX-SPL-RJ45-3SL 169141		1 off 
 <p>RJ45, 8-pin, 2 sockets/1 plug</p>	-	DE1, DE11, DC1, DA1	DX-SPL-RJ45-2SL1PL 169142		
 <p>RJ45, 8-pin, 2 sockets/1 plug for CANopen® and Modbus RTU</p>	-	DE1, DE11, DC1 (IP20), DA1 (IP20)	DX-SPL-RJ45 179313		1 off
 <p>RJ45, 8 pole, 1 socket/1 plug for CANopen® and Modbus RTU With 2 resistors, 120 Ω</p>	-	DE1, DE11, DC1 (IP20), DA1 (IP20)	DX-SPL-RJ45-TERM 179314		

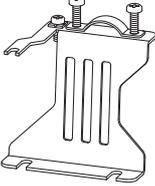


Information relevant for export to North America

Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification Suitable for	UL listed, certified by UL for use in Canada Branch circuits

EASY-NT-R:

Product Standards	IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking
UL File No.	E135462
UL Category Control No.	NRAQ
CSA File No.	012528
CSA Class No.	2258-02
North America Certification	UL listed, CSA certified
Degree of Protection	IEC: IP20, UL/CSA Type: -

Description	Length m	For use with	Part no. Article no.	Price see price list	Std. pack	
mounting accessories						
mounting adapter With gland plates						
	For installing the connection cables on the mains side	Size FS2	-	DC1, DA1, DL1	DX-EMC-MNT-2N 172927	1 off
		Size FS3	-	DC1, DA1, DL1	DX-EMC-MNT-3N 172929	
	For installing the connection cables on the motor side	Size FS2	-	DC1, DA1, DL1	DX-EMC-MNT-2M 172928	
		Size FS3	-	DC1, DA1, DL1	DX-EMC-MNT-3M 172930	

 **Information relevant for export to North America**

Product Standards	UL 508C; CSA-C22.2 No. 14; IEC/EN61800-3; IEC/EN61800-5; CE marking
UL File No.	E172143
UL Category Control No.	NMMS, NMMS7
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, certified by UL for use in Canada
Suitable for	Branch circuits