



DRIVES & SOFTSTARTERS

Explore our full range of drives and soft starters designed to boost performance, protect your equipment, and improve energy efficiency. Built for reliability and versatility, our solutions help you achieve smoother operation, greater control, and long-term value across your entire system.



THINK ELECTRICAL

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VARIABLE SPEED DRIVES

DANFOSS iC2 - MICRO DRIVE

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DANFOSS VLT® DECENTRAL DRIVE FCD 302

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Designed for simplicity and robustness, the VLT® Decentral Drive FCD 302 is a user-friendly product with high performance and a strong protection degree.

DANFOSS VLT® AUTOMATION DRIVE FC 302

3,4,7

This tough and savvy FC102 drive enhances pump and fan applications in building management systems, and runs outdoors in most mates.

DANFOSS VLT® AQUA DRIVE FC 202

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Intelligence embedded in the VLT® AQUA Drive FC 202 automatically defines baseline parameters for water and wastewater applications, at all speeds and real-life operating cycles.

VACON® 100 X AND VACON 20 X

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A drive for indoor and outdoor applications that withstands high pressure and vibration levels, water, heat and dirt.

VACON® 20

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Compact, but packed with programming functionality that's ideal for OEM applications.

VACON® 100 FLOW

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An AC drive that is dedicated to improving flow control and saving energy in industrial pump and fan applications.

VACON® 100 INDUSTRIAL

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One drive for a wide range of applications. VACON® 100 INDUSTRIAL is full of features and dedicated for a wide range of constant power/torque applications.

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Designed to meet the most demanding requirements and tailored to match your specific application.

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Designed for a broad range of demanding applications, focusing on higher power sizes and system drives.

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FU9000D series VFD is a high performance, open loop inverter suitable for all kinds of general purpose industrial control applications.

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The FU9000SI solar pumping inverter is fully automatic, with MPPT built-in for maximum pumping efficiency.

SOFT STARTERS

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Compact Low Voltage Soft Starter.

AUCOM EMX3

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The EMX3 is a comprehensive motor management system for the most demanding soft starting and stopping applications.

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The EMX4i is smaller, more powerful and packed with new control and protection features. It also introduces the game-changing Smart Card capability.

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Medium Voltage Soft starters.

DANFOSS VLT® SOFT START CONTROLLER MCD 100

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An extremely cost-effective and compact soft starter that provides basic soft start and stop functionality and easy DIN rail mounting.

INTEGRA ENERGY SAVING SOFT STARTERS

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Ensuring your motors only consume the energy they require.

NEW

iC2-MICRO DRIVE

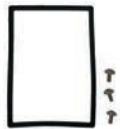


Features

- Easy retrofit - Designed to smoothly replace VLT® Micro Drive FC 51 in established plants
- Highly integrated design - iC2-Micro contains an integrated control panel, potentiometer, RFI filter, brake chopper, and intelligent cooling to reduce the need for external components.
- Operates at 50 °C ambient temperature at full load
- Save-space thanks to the compact design optimized for book style side-by-side mounting.
- Integrated PID controller.
- Coated PC boards as standard.



132G0234



132G0235



132G0237
132G0238



132G0236

iC2-Micro Drive - Single Phase Input 200-240VAC, Three Phase Output 230VAC

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 230V (kW)	Continuous Current (A)	Intermittent Current (A)		
132L6106	0.37	2.2	3.3	MA01c	70 x 150 x 143
132L6107	0.75	4.2	6.3	MA01c	70 x 150 x 143
132L6108	1.5	6.8	10.2	MA02c	75 x 176 x 157
132L6109	2.2	9.6	14.4	MA02a	75 x 186 x 175

iC2-Micro Drive - Three Phase Input 380-480VAC, Three phase Output 3 x 400VAC

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current (A)	Intermittent Current (A)		
132L6128	0.37	1.2	1.8	MA01a	70 x 150 x 158
132L6129	0.75	2.2	3.3	MA01a	70 x 150 x 158
132L6130	1.5	3.7	5.6	MA01a	70 x 150 x 158
132L6131	2.2	5.3	8	MA02a	75 x 186 x 175
132L6132	3	7.2	10.8	MA02a	75 x 186 x 175
132L6133	4	9	13.7	MA02a	75 x 186 x 175
132L6134	5.5	12	18	MA03A	90 x 238.5 x 200
132L6135	7.5	15.5	23.5	MA03A	90 x 238.5 x 200
132L6136	11	23	34.5	MA04A	125 x 292 x 245
132L6137	15	31	46.5	MA04A	125 x 292 x 245
132L6138	18.5	37	55.5	MA05A	165 x 335 x 248
132L6139	22	43	64.5	MA05A	165 x 335 x 248

Accessories

Code	Description
132G0234	External Control Panel 2" LCD
132G0235	Surface mounting kit for External control panel
132G0236	Flush mount kit for External control panel
132G0237	1.5m cable for External control panel
132G0238	3m cable for External control panel

Note: Brake resistors available on request.

NEW

VLT DECENTRALISED DRIVE



Technical Highlights

- Built-in smart logic controller
- Built-in DC coil to limit harmonic distortion
- Very easy to install and operate



130B5772



130B5778

FCD302 Decentral Drive IP66 - Three Phase Input 380-480VAC, Three phase Output 3 x 400VAC

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current (A)	Intermittent Current (A)		
FCD302-PK37-T4-66	0.37	1.2	1.9	S	200 x 331.5 x 175
FCD302-PK55-T4-66	0.55	1.6	2.6	S	200 x 331.5 x 175
FCD302-PK75-T4-66	0.75	2.2	3.5	S	200 x 331.5 x 175
FCD302-P1K1-T4-66	1.1	2.7	4.3	S	200 x 331.5 x 175
FCD302-P1K5-T4-66	1.5	3.7	5.9	S	200 x 331.5 x 175
FCD302-P2K2-T4-66	2.2	5.0	8.0	S	200 x 331.5 x 175
FCD302-P3K0-T4-66	3.0	6.5	10.4	L	201 x 431.5 x 186

Accessories

Code	Description
130B5771	Mounting brackets extended 40mm brackets
130B5772	Flat Mounting brackets
130B5778	Brake resistor 1750Ω 10W - Internal installations
130B5780	Brake resistor 350Ω 10W - Internal installations

One box concept minimizes design and installation cost

Unlike some decentral drives solutions, VLT® Decentral Drive **FCD 302** is a true 'One box' solutions based on the same reliable platform as the original VLT Automation Drive

Design and installation cost can be dramatically reduced. No need for field distribution or drop-down boxes and no external 24VDC supply is required.

For the OEM it's a breeze - fewer boxes to be mounted in fewer positions and fewer connections and terminations so that labour costs are significantly reduced.

This latest generation VLT® Decentral Drive **FCD 302** has been designed with simplicity and robustness in mind and offers significant advantages for multi-motor installations by mounting the drives close to the motors.

VLT AUTOMATION DRIVE

Features

- Designed for easy integration in any application.
- Designed with fast and easy start-up in mind.
- Extensive functionality for high-performance operation.
- Leveraging digitalization to reduce maintenance costs.
- Flexible, modular and adaptable. Built to last.
- VLT® FlexConcept® – quicker and more cost effective.
- Application flexibility to boost your business.
- Integrated motion controller – for positioning and synchronization applications
- Achieve maximum availability of your system – with condition-based monitoring.
- Drives with higher IP Ratings are available on request



Automation Drive FC302 - Three Phase Input (380 - 500VAC +/- 10%), Three Phase Output (0-100% of Supply)

Code - IP20/21	Motor Power 400V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC302-PK37-T5-A2-20	0,37	1,3	2,1	A2	90 x 268 x 205
FC302-PK55-T5-A2-20	0,55	1,8	2,9	A2	90 x 268 x 205
FC302-PK75-T5-A2-20	0,75	2,4	3,8	A2	90 x 268 x 205
FC302-P1K1-T5-A2-20	1,1	3	4,8	A2	90 x 268 x 205
FC302-P1K5-T5-A2-20	1,5	4,1	6,6	A2	90 x 268 x 205
FC302-P2K2-T5-A2-20	2,2	5,6	9	A2	90 x 268 x 205
FC302-P3K0-T5-A2-20	3	7,2	11,5	A2	90 x 268 x 205
FC302-P4K0-T5-A2-20	4	10	16	A2	90 x 268 x 205
FC302-P5K5-T5-A3-20	5,5	13	20,8	A3	130 x 268 x 205
FC302-P7K5-T5-A3-20	7,5	16	25,6	A3	130 x 268 x 205
FC302-P11K-T5-B3-20	11	32	35,2	B3	165 x 399 x 249
FC302-P15K-T5-B3-20	15	37,5	41,3	B3	165 x 399 x 249
FC302-P18K-T5-B4-20	18,5	44	48,4	B4	230 x 520 x 242
FC302-P22K-T5-B4-20	22	61	67,1	B4	230 x 520 x 242
FC302-P30K-T5-B4-20	30	73	80,3	B4	230 x 520 x 242
FC302-P37K-T5-C3-20	37	90	99	C3	308 x 550 x 333
FC302-P45K-T5-C3-20	45	106	117	C3	308 x 550 x 333
FC302-P55K-T5-C4-20	55	147	162	C4	370 x 660 x 333
FC302-P75K-T5-C4-20	75	177	195	C4	370 x 660 x 333
FC302-N90K-T5-D3H-20	90	212	233	D3H	250 x 909 x 375
FC302-N110K-T5-D3H-20	110	260	286	D3H	250 x 909 x 375
FC302-N132K-T5-D3H-20	132	315	347	D3H	250 x 909 x 375
FC302-N160K-T5-D4H-20	160	395	435	D4H	350 x 1122 x 375
FC302-N200K-T5-D4H-20	200	480	528	D4H	350 x 1122 x 375
FC302-N250K-T5-D4H-20	250	588	647	D4H	350 x 1122 x 375
FC302-N315K-T5-E1H-21	315	658	724	E1H	602 x 2043 x 513
FC302-N355K-T5-E1H-21	355	745	820	E1H	602 x 2043 x 513
FC302-N400K-T5-E1H-21	400	800	880	E1H	602 x 2043 x 513
FC302-N450K-T5-E2H-21	450	880	968	E2H	698 x 2043 x 513
FC302-N500K-T5-E2H-21	500	990	1089	E2H	698 x 2043 x 513
FC302-P560K-T5-F3-21	560	1120	1232	F3	2000 x 2204 x 606
FC302-P630K-T5-F3-21	630	1260	1386	F3	2000 x 2204 x 606
FC302-P710K-T5-F4-21	710	1460	1606	F4	2400 x 2204 x 606
FC302-P800K-T5-F4-21	800	1720	1892	F4	2400 x 2204 x 606

VLT AUTOMATION DRIVE

Automation Drive FC302 - Three Phase Input (**525 - 600VAC** +/- 10%), Three Phase Output (0-100% of Supply)

Code - IP20	Motor Power 525V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC302-PK75-T6-A3-20	0,75	1,7	2,7	A3	130 x 268 x 205
FC302-P1K1-T6-A3-20	1,1	2,4	3,8	A3	130 x 268 x 205
FC302-P1K5-T6-A3-20	1,5	2,7	4,3	A3	130 x 268 x 205
FC302-P2K2-T6-A3-20	2,2	3,9	6,2	A3	130 x 268 x 205
FC302-P3K0-T6-A3-20	3	4,9	7,8	A3	130 x 268 x 205
FC302-P4K0-T6-A3-20	4	6,1	9,8	A3	130 x 268 x 205
FC302-P5K5-T6-A3-20	5,5	9	14,4	A3	130 x 268 x 205
FC302-P7K5-T6-A3-20	7,5	11	17,6	A3	130 x 268 x 205
FC302-P11K-T6-B3-20	11	22	24	B3	165 x 399 x 249
FC302-P15K-T6-B3-20	15	27	30	B3	165 x 399 x 249
FC302-P18K-T6-B4-20	18,5	34	37	B4	230 x 520 x 242
FC302-P22K-T6-B4-20	22	41	45	B4	230 x 520 x 242
FC302-P30K-T6-B4-20	30	52	57	B4	230 x 520 x 242
FC302-P37K-T6-C3-20	37	62	68	C3	308 x 550 x 333
FC302-P45K-T6-C3-20	45	83	91	C3	308 x 550 x 333
FC302-P55K-T6-C4-20	55	100	110	C4	370 x 660 x 333
FC302-P75K-T6-C4-20	75	131	144	C4	370 x 660 x 333

Automation Drive FC302 - Three Phase Input (**525 - 690VAC** +/- 10%), Three Phase Output (0-100% of Supply)

Code - IP20/21	Motor Power 525V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC302-P1K1-T7-A3-20	1,1	2,1	3,4	A3	130 x 268 x 205
FC302-P1K5-T7-A3-20	1,5	2,7	4,3	A3	130 x 268 x 205
FC302-P2K2-T7-A3-20	2,2	3,9	6,2	A3	130 x 268 x 205
FC302-P3K0-T7-A3-20	3	4,9	7,8	A3	130 x 268 x 205
FC302-P4K0-T7-A3-20	4	6,1	9,8	A3	130 x 268 x 205
FC302-P5K5-T7-A3-20	5,5	9	14,4	A3	130 x 268 x 205
FC302-P7K5-T7-A3-20	7,5	11	17,6	A3	130 x 268 x 205
FC302-P11K-T7-B2-21	11	19	20,9	B2	242 x 650 x 260
FC302-P15K-T7-B2-21	15	23	25,3	B2	242 x 650 x 260
FC302-P18K-T7-B2-21	18,5	28	30,8	B2	242 x 650 x 260
FC302-P22K-T7-B2-21	22	36	39,6	B2	242 x 650 x 260
FC302-P30K-T7-C2-21	30	43	47,3	C2	370 x 770 x 335
FC302-P37K-T7-C2-21	37	54	59,4	C2	370 x 770 x 335
FC302-P45K-T7-C2-21	45	65	71,5	C2	370 x 770 x 335
FC302-P55K-T7-C2-21	55	87	95,7	C2	370 x 770 x 335
FC302-P75K-T7-C2-21	75	105	115,5	C2	370 x 770 x 335
FC302-N90K-T7-D1H-21	90	137	151	D1H	325 x 901 x 378.4
FC302-N110K-T7-D1H-21	110	162	178	D1H	325 x 901 x 378.4
FC302-N132K-T7-D1H-21	132	201	221	D1H	325 x 901 x 378.4
FC302-N160K-T7-D2H-21	160	253	278	D2H	420 x 1107 x 378.4
FC302-N200K-T7-D2H-21	200	303	333	D2H	420 x 1107 x 378.4
FC302-N250K-T7-D2H-21	250	360	396	D2H	420 x 1107 x 378.4
FC302-N315K-T7-D2H-21	315	418	460	D2H	420 x 1107 x 378.4
FC302-N355K-T7-E1H-21	355	470	517	E1H	602 x 2043 x 513
FC302-N400K-T7-E1H-21	400	523	575	E1H	602 x 2043 x 513
FC302-N500K-T7-E1H-21	500	596	656	E1H	602 x 2043 x 513
FC302-N560K-T7-E1H-21	560	630	693	E1H	602 x 2043 x 513
FC302-N630K-T7-E2H-21	630	763	839	E2H	698 x 2043 x 513
FC302-N710K-T7-E2H-21	710	889	978	E2H	698 x 2043 x 513
FC302-P800KT7-F3-21	800	988	1087	F3	2000 x 2204 x 606
FC302-P900K-T7-F4-21	900	1108	1219	F4	2000 x 2204 x 606
FC302-P1M0-T7-F4-21	1000	1317	1449	F4	2400 x 2204 x 606
FC302-P1M2-T7-F4-21	1200	1479	1627	F4	2400 x 2204 x 606

Technical Highlights

- Built-in smart logic controller making PLC unnecessary in many applications
- Reliable IP Rated Enclosures for indoor/outdoor mounting (up to IP66 on request)
- Dry run and over load pump protection
- Auto tuning of PI controllers saving time

Key Benefits

- User friendly award winning control panel (LCP)
- High energy saving efficiency (98%)
- Safe Operation and less wiring
- Broad usability in standard factory supplied enclosures


Aqua series FC202 - Single Phase Input (200-240VAC +/- 10%), Three Phase Output (0-100% of Supply)

Code - IP20/21	Motor Power 230V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC202-P1K1-S2-A3-20	1,1	6,6	7,3	A3	130 x 268 x 205
FC202-P1K5-S2-B1-21	1,5	7,5	8,3	B1	242 x 480 x 260
FC202-P2K2-S2-B1-21	2,2	10,6	11,7	B1	242 x 480 x 260
FC202-P3K0-S2-B1-21	3	12,5	13,8	B1	242 x 480 x 260
FC202-P3K7-S2-B1-21	3,7	16,7	18,4	B1	242 x 480 x 260
FC202-P5K5-S2-B1-21	5,5	24,2	26,6	B1	242 x 480 x 260
FC202-P7K5-S2-B2-21	7,5	30,8	33,4	B2	242 x 650 x 260
FC202-P15K-S2-C1-21	15	59,4	65,3	C1	308 x 680 x 310
FC202-P22K-S2-C2-21	22	88	96,8	C2	370 x 770 x 335

Aqua series FC202 - Three Phase input (380-480VAC +/- 10%), Three Phase Output (0-100% of Supply)

Code - IP20/21	Motor Power 400V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC202-PK37-T4-A2-20	0,37	1,3	1,4	A2	90 x 268 x 205
FC202-PK55-T4-A2-20	0,55	1,8	2	A2	90 x 268 x 205
FC202-PK75-T4-A2-20	0,75	2,4	2,6	A2	90 x 268 x 205
FC202-P1K1-T4-A2-20	1,1	3	3,3	A2	90 x 268 x 205
FC202-P1K5-T4-A2-20	1,5	4,1	4,5	A2	90 x 268 x 205
FC202-P2K2-T4-A2-20	2,2	5,6	6,2	A2	90 x 268 x 205
FC202-P3K0-T4-A2-20	3	7,2	7,9	A2	90 x 268 x 205
FC202-P4K0-T4-A2-20	4	10	11	A2	90 x 268 x 205
FC202-P5K5-T4-A3-20	5,5	13	14,3	A3	130 x 268 x 205
FC202-P7K5-T4-A3-20	7,5	16	17,6	A3	130 x 268 x 205
FC202-P11K-T4-B1-21	11	24	26,4	B1	242 x 480 x 260
FC202-P15K-T4-B1-21	15	32	35,2	B1	242 x 480 x 260
FC202-P18K-T4-B1-21	18,5	37,5	41,3	B1	242 x 480 x 260
FC202-P22K-T4-B2-21	22	44	48,4	B2	242 x 650 x 260
FC202-P30K-T4-B2-21	30	61	67,1	B2	242 x 650 x 260
FC202-P37K-T4-C1-21	37	73	80,3	C1	308 x 680 x 310
FC202-P45K-T4-C1-21	45	90	99	C1	308 x 680 x 310
FC202-P55K-T4-C1-21	55	106	117	C1	308 x 680 x 310
FC202-P75K-T4-C2-21	75	147	162	C2	370 x 770 x 335
FC202-P90K-T4-C2-21	90	177	195	C2	370 x 770 x 335
FC202-N110K-T4-D1H-21	110	212	233	D1H	325 x 901 x 378.4
FC202-N132K-T4-D1H-21	132	260	286	D1H	325 x 901 x 378.4
FC202-N160K-T4-D1H-21	160	315	347	D1H	325 x 901 x 378.4
FC202-N200K-T4-D2H-21	200	395	435	D2H	420 x 1107 x 378.4
FC202-N250K-T4-D2H-21	250	480	528	D2H	420 x 1107 x 378.4
FC202-N315K-T4-D2H-21	315	588	647	D2H	420 x 1107 x 378.4
FC202-N355K-T4-E1H-21	355	658	724	E1H	602 x 2043 x 513
FC202-N400K-T4-E1H-21	400	745	820	E1H	602 x 2043 x 513
FC202-N450K-T4-E1H-21	450	800	880	E1H	602 x 2043 x 513
FC202-N500K-T4-E2H-21	500	880	968	E2H	698 x 2043 x 513
FC202-N560K-T4-E2H-21	560	990	1089	E2H	698 x 2043 x 513
FC202-P630K-T4-F3-21	630	1120	1232	F3	2000 x 2204 x 606
FC202-P710K-T4-F3-21	710	1260	1386	F3	2000 x 2204 x 606
FC202-P800K-T4-F4-21	800	1460	1606	F4	2400 x 2204 x 606
FC202-P1M0-T4-F4-21	1000	1720	1892	F4	2400 x 2204 x 606

VLT AQUA DRIVE

The VLT Aqua Drives are dedicated water and wastewater application drives with a wide range of powerful standard and optional features.

Features

- Cascade control
- Dry run detection
- Overload protection
- Minimum speed monitor
- Real time clock
- Alerts & warning programming

Proven Solution

VLT Aqua Drives are built on a flexible, modular design concept to provide a versatile motor control solution. It has an energy efficient design, intelligent heat management, automatic adaptation to application, energy efficient harmonic mitigation and optimal control of all motors.



Aqua series FC202 - Three Phase Input (**525-690VAC** +/- 10%), Three Phase Output (0-100% of Supply)

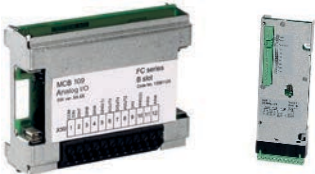
Code - IP20/21	Motor Power 525V (kW)	Continuous Current (A)	Intermittent Current (A)	Frame Size	Dimensions (mm) W x H x D
FC202-P1K1-T7-A3-20	1,1	2,1	2,3	A3	130 x 268 x 205
FC202-P1K5-T7-A3-20	1,5	2,7	3	A3	130 x 268 x 205
FC202-P2K2-T7-A3-20	2,2	3,9	4,3	A3	130 x 268 x 205
FC202-P3K0-T7-A3-20	3	4,9	5,4	A3	130 x 268 x 205
FC202-P4K0-T7-A3-20	4	6,1	6,7	A3	130 x 268 x 205
FC202-P5K5-T7-A3-20	5,5	9	9,9	A3	130 x 268 x 205
FC202-P7K5-T7-A3-20	7,5	11	12,1	A3	130 x 268 x 205
FC202-P11K-T7-B2-21	11	14	15,4	B2	242 x 650 x 260
FC202-P15K-T7-B2-21	15	19	20,9	B2	242 x 650 x 260
FC202-P18K-T7-B2-21	18	23	25,3	B2	242 x 650 x 260
FC202-P22K-T7-B2-21	22	28	30,8	B2	242 x 650 x 260
FC202-P30K-T7-B2-21	30	36	39,6	B2	242 x 650 x 260
FC202-P37K-T7-C2-21	37	43	47,3	C2	370 x 770 x 335
FC202-P45K-T7-C2-21	45	54	59,4	C2	370 x 770 x 335
FC202-P55K-T7-C2-21	55	65	71,5	C2	370 x 770 x 335
FC202-P75K-T7-C2-21	75	90	99	C2	370 x 770 x 335
FC202-P90K-T7-C2-21	90	113	124	C2	370 x 770 x 335
FC202-N110K-T7-D1H-21	110	137	151	D1H	325 x 901 x 378.4
FC202-N132K-T7-D1H-21	132	162	178	D1H	325 x 901 x 378.4
FC202-N160K-T7-D1H-21	160	201	221	D1H	325 x 901 x 378.4
FC202-N200K-T7-D2H-21	200	253	278	D2H	420 x 1107 x 378.4
FC202-N250K-T7-D2H-21	250	303	333	D2H	420 x 1107 x 378.4
FC202-N315K-T7-D2H-21	315	360	396	D2H	420 x 1107 x 378.4
FC202-N400K-T7-D2H-21	400	418	460	D2H	420 x 1107 x 378.4
FC202-N450K-T7-E1H-21	450	470	517	E1H	602 x 2043 x 513
FC202-N500K-T7-E1H-21	500	523	575	E1H	602 x 2043 x 513
FC202-N560K-T7-E1H-21	560	596	656	E1H	602 x 2043 x 513
FC202-N630K-T7-E1H-21	630	630	693	E1H	602 x 2043 x 513
FC202-N710K-T7-E2H-21	710	763	839	E2H	698 x 2043 x 513
FC202-N800K-T7-E2H-21	800	889	978	E2H	698 x 2043 x 513
FC202-P900K-T7-F3-21	900	988	1087	F3	2000 x 2204 x 606
FC202-P1M0-T7-F4-21	1000	1108	1219	F4	2400 x 2204 x 606
FC202-P1M2-T7-F4-21	1200	1317	1449	F4	2400 x 2204 x 606
FC202-P1M4-T7-F4-21	1400	1479	1627	F4	2400 x 2204 x 606



130B1100/130B1102



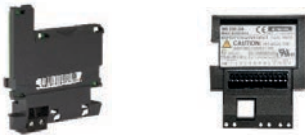
130B1119/130B1196
130B1196



130B1143 130B1164



130B1125 134B6544
130B1143



130B1108 130B1137



130B1124 130B1107



130B1113

Fieldbus Communication

Code	Description	Protocols	Connection type
130B1100	VLT® Profibus	FMS , DP , FMS , FDL	Screw terminal
130B1102	VLT® Devicenet	CIP, CAN	Screw terminal
130B1135	VLT® PROFINET	PROFINET , DCP , LLDP , HTTP , SMTP , TCP/IP	RJ-45
130B1119	VLT® EtherNet/IP	EtherNet/IP , CIP , HTTP , SMPT , DHCP	RJ-45
130B1196	VLT® Modbus TCP	EtherNet/IP , CIP , HTTP , SMPT , DHCP , TCP/IP	RJ-45

Relay and Analogue I/O Option

Code	Description	I/O
130B1110	VLT® Relay Option	3 x 3CO RELAYS 2A @ 240VAC, 1A @ 24VDC
130B1143	VLT® Analog I/O Option	3x Analog inputs: 0 ... 10V / Pt1000 / Ni1000 / 3x Analog outputs: 0 ... 10V

Application Options

Code	Description	I/O
130B1125	VLT® General Purpose I/O	3x Digital inputs Opto-decoupled 0 - 24 V. / 2x Analog inputs 0 - 10 V. / 2x Analog outputs NPN / PNP switchable 24 V / 1x Analog output 0/4 - 20 Ma
130B1172	VLT® Sensor Input Card	2 or 3 wire PT100/PT1000
130B1137	VLT® PTC Thermistor Card	1x PTB-certified PTC thermistor input / 1x Switch-off signal for the Safe Stop function - 60mA @ 24VDC 1x PNP Transistor output - 10mA @ 24VDC
130B1164	VLT® Extended Relay Card MCB 113	4x SPDT Relays = 8A @ 250VAC OR 30VDC 7x Digital Inputs = 0.24VDC PNP/NPN 2x Analog Outputs = 4-20mA
130B1108	VLT® 24V DC Supply MCB 107	24V Input voltage Max Input current 2.2A Max cable Length 75M
134B6544	VLT® Real Time Clock	The drive uses it for synchronizing real-time data.

LCP Control Panel

Code	Description	I/O
130B1124	VLT® Control Panel LCP 101	Numerical Control unit
130B1107	VLT® Control Panel LCP 102	Graphic Control unit

LCP Panel Mounting Kit for IP20 Enclosure

Code	Description	Contains
130B1113	LCP mounting kit with Graphical Control	Kit Includes Fasteners, Gasket, 130B1107, and 3M Cable
130B1114	LCP mounting kit with Numerical Control	Kit Includes Fasteners, Gasket, 130B1124, and 3M Cable
130B1117	LCP mounting kit 1	Kit Includes Fasteners, Gaskets, 3M cable without LCP
130B1170	LCP mounting Kit 2	Kit Includes Fasteners, Gaskets, without LCP & without Cable

LCP Panel Mounting Kit for IP55 Enclosure

Code	Description	Contains
130B1129	LCP mounting Kit 3	Kit includes fasteners, gasket, blind cover, 8M "free end cable" without LCP

VACON® 20 X - DECENTRALIZED DRIVE IP66



VACON 20 X - Three Phase Input **380-480V**, Three Phase Output **3 x 400V IP66/Type 4X**
(DC input up to 800VDC-MU3 Frame only)

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON0020-3L-0003-4-X	0,75	2,4	3,6	MU2	169 x 295 x 154
VACON0020-3L-0004-4-X	1,1	3,3	5	MU2	170 x 295 x 154
VACON0020-3L-0005-4-X	1,5	4,3	6,5	MU2	171 x 295 x 154
VACON0020-3L-0006-4-X	2,2	5,6	8,4	MU2	172 x 295 x 154
VACON0020-3L-0008-4-X	3	7,6	11,4	MU2	173 x 295 x 154
VACON0020-3L-0009-4-X	4	9	13,5	MU3	205 x 375 x 180
VACON0020-3L-0012-4-X	5,5	12	18	MU3	206 x 375 x 180
VACON0020-3L-0016-4-X	7,5	16	24	MU3	207 x 375 x 180

See Page 6.8 for accessories. Keypads to be ordered separately.

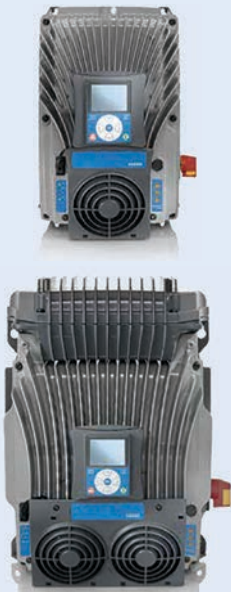
Technical Highlights

- 2g resistance to vibrations (according to 3M6/IEC 60721-3-3)
- Large cooling ribs
- Option of integrated mains switch

Benefits

- Cost savings from decentral concept
- Can be used in almost any environment
- Can be cleaned with pressurized water
- Custom-made software solutions with built-in PLC functionality for OEMs

VACON® 100 X - DECENTRALIZED/SOLAR DRIVE IP66



VACON 100 X - Three Phase Input **380-480V**, Three Phase Output **3 x 400V IP66/Type 4X**, DC input up to 800VDC

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON100-3L-0016-4-X	7,5	16	24	MM5	233 x 367 x 214
VACON100-3L-0023-4-X	11	23	34	MM5	233 x 367 x 214
VACON100-3L-0031-4-X	15	31	46	MM5	233 x 367 x 214
VACON100-3L-0038-4-X	18,5	38	57	MM6	350 x 500 x 235
VACON100-3L-0046-4-X	22	46	69	MM6	350 x 500 x 235
VACON100-3L-0061-4-X	30	61	91	MM6	350 x 500 x 235
VACON100-3L-0072-4-X	37	72	80*	MM6	350 x 500 x 235

See Page 6.11 for accessories. Keypads to be ordered separately. * 110% Overload

Technical Highlights

- 3g resistance to vibrations (according to 3M7/IEC 60721-3-3)
- Option of integrated mains switch
- Integrated with RS485 Modbus and EtherNET communication
- Integrated Brake Chopper

Benefits

- Able to withstand rough conditions such as heat, dirt and vibrations
- Programming enables top class integration for countless OEM applications
- Mountable in any position

ENCLOSED VSD'S



Pressure Drive Panels - IP54

Variable Speed Drive in a "Box". Panel includes: VSD, Surge Protection, Isolator, Pressure Selection Switch and Pressure Transducer. Standard Pressure Settings: 4 / 6 / 8 / 10 Bar & Bypass (No Pressure Control). Other configurations available on request.

Code	Motor Power	Motor Voltage	Motor Current	Drive Included
PD-04*	4kW	400V	9.6A	VACON 100 FLOW
PD-05*	5,5kW	400V	12A	VACON 100 FLOW
PD-07*	7,5kW	400V	16A	VACON 100 FLOW
PD-11*	11kW	400V	23A	VACON 100 FLOW
PD-15*	15kW	400V	31A	VACON 100 FLOW
PD-18*	18,5kW	400V	38A	VACON 100 FLOW
PD-22	22kW	400V	46A	VACON 100 FLOW
PD-30	30kW	400V	61A	VACON 100 FLOW
PD-37	37kW	400V	72A	VACON 100 FLOW

* - Add S to code for panel, c/w 10 Bar Pressure Sensor

VACON® 20 COMPACT DRIVES



MI1 Frame



MI2 Frame



MI3 Frame



MI4 Frame



MI5 Frame

Features

- Push Button HMI
- EMC 4 (also suitable for IT networks)
- English quick guide
- 50Hz parameter settings

Typical Applications

- Pumps and fans
- Conveyors
- Packaging, processing and washing machines

Technical Highlights

- Wide power range up to 18.5 kW
- High performance and functionality
- Full I/O + option board support
- Fast installation and setup
- Built-in choke as option in $\geq 16A$ types
- Induction and permanent magnet (PM) motor support

Key Benefits

- Fieldbus connectivity
- Parameter copying without main power
- Custom-made software possible

VACON 20 - Single Phase Input 208-240V, Three Phase Output 3 x 230V IP20

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 230V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON0020-1L-0001-2	0,25	1,7	2,6	MI1	66 x 160 x 98
VACON0020-1L-0002-2	0,37	2,4	3,6	MI1	66 x 160 x 98
VACON0020-1L-0003-2	0,55	2,8	4,2	MI1	66 x 160 x 98
VACON0020-1L-0004-2	0,75	3,7	5,6	MI2	90 x 195 x 102
VACON0020-1L-0005-2	1,1	4,8	7,2	MI2	90 x 195 x 102
VACON0020-1L-0007-2	1,5	7	10,5	MI2	90 x 195 x 102
VACON0020-1L-0009-2	2,2	9,6	14,4	MI3	100 x 255 x 109

VACON 20 - Three Phase Input 380-480V, Three Phase Output 3 x 400V IP20/IP21

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
IP20/Open Type					
VACON0020-3L-0001-4	0,37	1,3	2	MI1	66 x 160 x 98
VACON0020-3L-0002-4	0,55	1,9	2,9	MI1	66 x 160 x 98
VACON0020-3L-0003-4	0,75	2,4	3,6	MI1	66 x 160 x 98
VACON0020-3L-0004-4	1,1	3,3	5	MI2	90 x 195 x 102
VACON0020-3L-0005-4	1,5	4,3	6,5	MI2	90 x 195 x 102
VACON0020-3L-0006-4	2,2	5,6	8,4	MI2	90 x 195 x 102
VACON0020-3L-0008-4	3	7,6	11,4	MI3	100 x 255 x 109
VACON0020-3L-0009-4	4	9	13,5	MI3	100 x 255 x 109
VACON0020-3L-0012-4	5,5	12	18	MI3	100 x 255 x 109

IP21/Open Type

VACON0020-3L-0016-4	7,5	16	24	MI4	165 x 370 x 165
VACON0020-3L-0023-4	11	23	34,5	MI4	165 x 370 x 165
VACON0020-3L-0031-4	15	31	46,5	MI5	165 x 414 x 202
VACON0020-3L-0038-4	18,5	38	57	MI5	165 x 414 x 202

VACON 20 - Three Phase Input 525-575V, Three Phase Output 3 x 525V IP20

Code	High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 575V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON0020-3L-0002-7	0,75	1,7	2,6	MI3	100 x 255 x 109
VACON0020-3L-0003-7	1,5	2,7	4,1	MI3	100 x 255 x 109
VACON0020-3L-0004-7	2,2	3,9	5,9	MI3	100 x 255 x 109
VACON0020-3L-0006-7	4	6,1	9,2	MI3	100 x 255 x 109
VACON0020-3L-0009-7	5,5	9	13,5	MI3	100 x 255 x 109

VACON® COMPACT OPTIONS

Keypad Door Mounting

Code	Description	Suitability
PAN-HMDR-TMX-MC03-3M	VACON 20 door mounting kit with text keypad & passive adapter with 3m RJ45 cable	VACON 20
PAN-HMDR-TMX-MC03-6M	VACON 20 door mounting kit with text keypad & passive adapter with 6m RJ45 cable	VACON 20
VACON-PAN-HMDR-MC03-2M	Complete IP54 keypad door kit+2m cable+adapater	VACON 20
VACON-PAN-HMTX-MC06-X	Handheld/Magnetic fixing IP66 text keypad w/ cable, l=0,5m	VACON 20X
PAN-HMWM-MK02	Keypad Wall mounting Kit	VACON 20/20X



ENC-SLOT VACON-ADP-MCAA

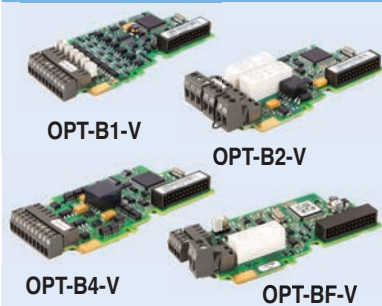
Option Board Mounting

Code	Description	Suitability
ENC-SLOT-MC03-13	Option board mounting kit, drive width +28 mm	VACON 20 MI1-3
ENC-SLOT-MC03-45	Option board mounting kit	VACON 20 MI4-5

Communication Adapters

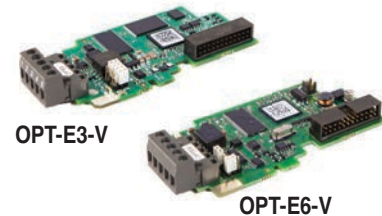
Code	Description	Suitability
CAB-USB/RS485	USB to RS-485 cable for PC	VACON 20/20X
VACON-ADP-MCAA	MCA adapter for PC tool and parameter cloning	VACON 20
VACON-ADP-MCAA-KIT	Kit with PC cable and MCA adapter	VACON 20

I/O boards D- and E-slot Compatible



Code	Description	Suitability
OPT-B1-V	6 x DI / DO, programmable	VACON 20/20X
OPT-B2-V	2 x RO + Thermistor	VACON 20/20X
OPT-B4-V	1 x AI, 2 x AO (isolated)	VACON 20/20X
OPT-B5-V	3 x RO	VACON 20/20X
OPT-B9-V	1 x RO, 5 x DI (42-240VAC)	VACON 20/20X
OPT-BF-V	1 x AO, 1 x DO, 1 x RO	VACON 20/20X
OPT-BH-V	3 x Temp sensor inputs (PT100, PT1000, KTY84-130, KTY84-150, KTY84-131, NI1000)	VACON 20/20X

Field Bus Boards



OPT-E3-V

OPT-E6-V

Code	Description	Suitability
OPT-E3-V	Profibus DP, Screw Terminals	VACON 20*/20X
OPT-E5-V	Profibus DP, Sub-D9 Connector	VACON 20*/20X
OPT-E6-V	CANopen	VACON 20*/20X
OPT-E7-V	DeviceNet	VACON 20*/20X
OPT-E9-V	2-Port Ethernet (Modbus TCP/UDP, PROFINET, EtherNet/IP, RSTP, MRP)	VACON 20*/20X
OPT-EC-V	EtherCAT field bus	VACON 20*/20X
OPT-CJ-V	BACnet MS/TP	VACON 20*/20X

* With ENC-SLOT-MC03-13/45

VACON 20 External Brake Resistors



BRR-0025-HD-2

BRR-0022-LD-5

BRR-0013-HD-6

Code	Dimensions W x H x D mm	Power [kW] @ 100% ED based on a 120s cycle	Resistance (Ω)	Suitability
208-240V				
BRR-0025-LD-2	60 x 31 x 165	0,1	30	VACON20 MI4 3~230V
BRR-0031-LD-2	60 x 31 x 246	0,16	20	VACON20 MI5 3~230V
BRR-0025-HD-2	60 x 106 x 381	0,27	30	VACON20 MI4 3~230V
BRR-0031-HD-2	124 x 122 x 400	0,41	20	VACON20 MI5 3~230V
380-500V				
BRR-0022-LD-5	60 x 31 x 335	0,24	63	VACON20 MI3 3~400V
BRR-0031-LD-5	117 x 124 x 225	0,35	42	VACON20 MI4 3~400V
BRR-0045-LD-5	117 x 124 x 426	0,71	21	VACON20 MI5 3~400V
BRR-0022-HD-5	124 x 126 x 540	0,61	63	VACON20 MI3 3~400V
BRR-0031-HD-5	124 x 126 x 700	0,91	42	VACON20 MI4 3~400V
BRR-0045-HD-5	260 x 101 x 700	1,8	21	VACON20 MI5 3~400V
525-690V				
BRR-0013-LD-6	60 x 31 x 405	0,28	100	VACON 20 MI3 3~600V
BRR-0013-HD-6	124 x 126 x 600	0,73	100	VACON 20 MI3 3~600V

HD = Heavy Duty (3 sec Full Power + 7 sec Ramp to Zero)

LD = Light Duty (5 sec Ramp to Zero)

VACON® 100 FLOW

Application Specific Features

- Integrated DC chokes

Pumps:

- 2 PID controllers with sleep mode, soft fill, jockey pump, pump autoclean
- PM and induction motor support

Fans:

- Flying start, motor switch
- 3 prohibit frequency ranges

Benefits

- Demand-based optimization of the process for accurate process control and energy saving

Common Features

- Built-in Modbus TCP/IP and Modbus RTU
- Ethernet always included
- **Extended lifespan: last up to 300,000 hours**
- Film capacitors
- Conformal coating on PCB's
- Standard I/O + 3 free slots



VACON 100 FLOW - Three Phase Input 380-500V, Three Phase Output 3 x 400V

IP21/Type 1, Air-cooled, Wall-mounted drive, EMC Class C2, Graphical keypad

Code	Low Overload Ratings				Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Motor Power 480V (Hp)	Continuous Current I _L (A)	110% Overload Current (A)		
VACON0100-3L-0003-5-FLOW	1,1	1,5	3,4	3,7	MR4	128 x 328 x 190
VACON0100-3L-0004-5-FLOW	1,5	2	4,8	5,3	MR4	128 x 328 x 190
VACON0100-3L-0005-5-FLOW	2,2	3	5,6	6,2	MR4	128 x 328 x 190
VACON0100-3L-0008-5-FLOW	3	4	8	8,8	MR4	128 x 328 x 190
VACON0100-3L-0009-5-FLOW	4	5	9,6	10,6	MR4	128 x 328 x 190
VACON0100-3L-0012-5-FLOW	5,5	7,5	12	13,2	MR4	128 x 328 x 190
VACON0100-3L-0016-5-FLOW	7,5	10	16	17,6	MR5	144 x 419 x 214
VACON0100-3L-0023-5-FLOW	11	15	23	25,3	MR5	144 x 419 x 214
VACON0100-3L-0031-5-FLOW	15	20	31	34,1	MR5	144 x 419 x 214
VACON0100-3L-0038-5-FLOW	18,5	25	38	41,8	MR6	195 x 557 x 229
VACON0100-3L-0046-5-FLOW	22	30	46	50,6	MR6	195 x 557 x 229
VACON0100-3L-0061-5-FLOW	30	40	61	67,1	MR6	195 x 557 x 229
VACON0100-3L-0072-5-FLOW	37	50	72	79,2	MR7	237 x 660 x 259
VACON0100-3L-0087-5-FLOW	45	60	87	95,7	MR7	237 x 660 x 259
VACON0100-3L-0105-5-FLOW	55	75	105	115,5	MR7	237 x 660 x 259
VACON0100-3L-0140-5-FLOW	75	100	140	154	MR8	290 x 966 x 343
VACON0100-3L-0170-5-FLOW	90	125	170	187	MR8	290 x 966 x 343
VACON0100-3L-0205-5-FLOW	110	150	205	225,5	MR8	290 x 966 x 343
VACON0100-3L-0261-5-FLOW	132	200	261	287,1	MR9	480 x 1150 x 365
VACON0100-3L-0310-5-FLOW	160	250	310	341	MR9	480 x 1150 x 365

VACON 100 FLOW - Three Phase Input 525-600V, Three Phase Output 3 x 525V

IP21/Type 1, Air-cooled, Wall-mounted drive, EMC Class C2, Graphical keypad

Code	Low Overload Ratings				Frame Size	Dimensions (mm) W x H x D
	Motor Power 525V (kW)	Motor Power 600V (Hp)	Continuous Current I _L (A)	110% Overload Current (A)		
VACON0100-3L-0004-6-FLOW	2,2	3	3,9	4,3	MR5	144 x 419 x 214
VACON0100-3L-0006-6-FLOW	4	5	6,1	6,7	MR5	144 x 419 x 214
VACON0100-3L-0009-6-FLOW	5,5	7,5	9	9,9	MR5	144 x 419 x 214
VACON0100-3L-0011-6-FLOW	7,5	10	11	12,1	MR5	144 x 419 x 214
VACON0100-3L-0018-6-FLOW	11	15	18	19,8	MR6	195 x 557 x 229
VACON0100-3L-0022-6-FLOW	15	20	22	24,2	MR6	195 x 557 x 229
VACON0100-3L-0027-6-FLOW	18,5	25	27	29,7	MR6	195 x 557 x 229
VACON0100-3L-0034-6-FLOW	22	30	34	37,4	MR6	195 x 557 x 229
VACON0100-3L-0041-6-FLOW	30	40	41	45,1	MR7	237 x 660 x 259
VACON0100-3L-0052-6-FLOW	37	50	52	57,2	MR7	237 x 660 x 259
VACON0100-3L-0062-6-FLOW	45	60	62	68,2	MR7	237 x 660 x 259
VACON0100-3L-0080-6-FLOW	55	75	80	88	MR8	290 x 966 x 343
VACON0100-3L-0100-6-FLOW	75	100	100	110	MR8	290 x 966 x 343
VACON0100-3L-0125-6-FLOW	90	125	125	137,5	MR8	290 x 966 x 343
VACON0100-3L-0144-6-FLOW	110	150	144	158,4	MR9	482 x 1150 x 365
VACON0100-3L-0208-6-FLOW	160	200	208	228,8	MR9	482 x 1150 x 365

VACON® 100 INDUSTRIAL

Application Specific Features

- Wide power range
- Integrated DC chokes
- Options module for easy integration (frames MR10 and MR12)
- Safe Torque Off, Safe Stop1, ATEX-certified thermistor input
- Integrated brake chopper (optional, see page 13)
- Integrated output filters (optional)

Benefits

- Reduced installation space and costs
- Easier integration

Common Features

- Standard I/O + 3 free slots
- Built-in Modbus TCP/IP and Modbus RTU
- Built-in PLC capability
- Ethernet always included
- High efficiency > 97% + energy optimization
- **Extended lifespan: last up to 300,000 hours**



VACON 100 INDUSTRIAL - Three Phase Input **380-500V**, Three Phase Output **3 x 400V**

IP21/Type 1, Air-cooled, Wall-mounted drive, EMC Class C2, Graphical keypad

Code	Low Overload Ratings			High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current I _L (A)	110% Overload Current (A)	Motor Power 400V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON0100-3L-0003-5	1,1	3,4	3,7	0,75	2,6	3,9	MR4	128 x 328 x 190
VACON0100-3L-0004-5	1,5	4,8	5,3	1,1	3,4	5,1	MR4	128 x 328 x 190
VACON0100-3L-0005-5	2,2	5,6	6,2	1,5	4,3	6,5	MR4	128 x 328 x 190
VACON0100-3L-0008-5	3	8	8,8	2,2	5,6	8,4	MR4	128 x 328 x 190
VACON0100-3L-0009-5	4	9,6	10,6	3	8	12	MR4	128 x 328 x 190
VACON0100-3L-0012-5	5,5	12	13,2	4	9,6	14,4	MR4	128 x 328 x 190
VACON0100-3L-0016-5	7,5	16	17,6	5,5	12	18	MR5	144 x 419 x 214
VACON0100-3L-0023-5	11	23	25,3	7,5	16	24	MR5	144 x 419 x 214
VACON0100-3L-0031-5	15	31	34,1	11	23	34,5	MR5	144 x 419 x 214
VACON0100-3L-0038-5	18,5	38	41,8	15	31	46,5	MR6	195 x 557 x 229
VACON0100-3L-0046-5	22	46	50,6	18,5	38	57	MR6	195 x 557 x 229
VACON0100-3L-0061-5	30	61	67,1	22	46	69	MR6	195 x 557 x 229
VACON0100-3L-0072-5	37	72	79,2	30	61	91,5	MR7	237 x 660 x 259
VACON0100-3L-0087-5	45	87	95,7	37	72	108	MR7	237 x 660 x 259
VACON0100-3L-0105-5	55	105	115,5	45	87	130,5	MR7	237 x 660 x 259
VACON0100-3L-0140-5	75	140	154	55	105	157,5	MR8	290 x 966 x 343
VACON0100-3L-0170-5	90	170	187	75	140	210	MR8	290 x 966 x 343
VACON0100-3L-0205-5	110	205	225,5	90	170	255	MR8	290 x 966 x 343
VACON0100-3L-0261-5	132	261	287,1	110	205	307,5	MR9	480 x 1150 x 365
VACON0100-3L-0310-5	160	310	341	132	251	376,5	MR9	480 x 1150 x 365

VACON 100 INDUSTRIAL - Three Phase Input **525-600V**, Three Phase Output **3 x 525V**

IP21/Type 1, Air-cooled, Wall-mounted drive, EMC Class C2, Graphical keypad

Code	Low Overload Ratings		High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Continuous Current I _L (A)	110% Overload Current (A)	Motor Power 525V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
VACON0100-3L-0004-6	3,9	4,3	1,5	2,7	4,1	MR5	144 x 419 x 214
VACON0100-3L-0006-6	6,1	6,7	2,2	3,9	5,9	MR5	144 x 419 x 214
VACON0100-3L-0009-6	9	9,9	4	6,1	9,2	MR5	144 x 419 x 214
VACON0100-3L-0011-6	11	12,1	5,5	9	13,5	MR5	144 x 419 x 214
VACON0100-3L-0018-6	18	19,8	7,5	13,5	20,3	MR6	195 x 557 x 229
VACON0100-3L-0022-6	22	24,2	11	18	27	MR6	195 x 557 x 229
VACON0100-3L-0027-6	27	29,7	15	22	33	MR6	195 x 557 x 229
VACON0100-3L-0034-6	34	37,4	18,5	27	40,5	MR6	195 x 557 x 229
VACON0100-3L-0041-6	41	45,1	22	34	51	MR7	237 x 660 x 259
VACON0100-3L-0052-6	52	57,2	30	41	61,5	MR7	237 x 660 x 259
VACON0100-3L-0062-6	62	68,2	37	52	78	MR7	237 x 660 x 259
VACON0100-3L-0080-6	80	88	45	62	93	MR8	290 x 966 x 343
VACON0100-3L-0100-6	100	110	55	80	120	MR8	290 x 966 x 343
VACON0100-3L-0125-6	125	137,5	75	100	150	MR8	290 x 966 x 343
VACON0100-3L-0144-6	144	158,4	90	125	187,5	MR9	482 x 1150 x 365
VACON0100-3L-0208-6	208	228,8	132	170	255	MR9	482 x 1150 x 365

VACON 100® ACCESSORIES

Code	Description	Suitability
Keypads		
VACON-PAN-HMDR-MK01-3M	VACON 100 door mounting kit with 3m cable	VACON 100 INDUSTRIAL / FLOW
VACON-PAN-HMDR-MK01-6M	VACON 100 door mounting kit with 6m cable	VACON 100 INDUSTRIAL / FLOW
VACON-PAN-HMGR-MK01	VACON 100 Keypad	VACON 100 INDUSTRIAL / FLOW
VACON-PAN-HMGR-MC05-X	Handheld/Magnetic fixing IP66 graphical keypad w/ cable, l=0,5m	VACON 100 X
CAB-HMI2M-MC05-X	MC05 IP66 HMI cable l=2m for -X keypads Option	VACON 100 X
CAB-HMI5M-MC05-X	MC05 IP66 HMI cable l=5m for -X keypads Option	VACON 100 X
PAN-HMWM-MK02	Keypad Wall-mounting Kit	VACON 100 X

I/O boards B -slot compatible

OPT-F3-V	3 x RO	VACON 100 INDUSTRIAL / FLOW
OPT-F4-V	2 x RO + Thermistor	VACON 100 INDUSTRIAL / FLOW

I/O boards D- and E -slot compatible VACON 100 and VACON 100 FLOW also C-slot

OPT-B1-V	6 x DI / DO, programmable	VACON 100 INDUSTRIAL / FLOW / X
OPT-B2-V	2 x RO + Thermistor	VACON 100 INDUSTRIAL / FLOW / X
OPT-B4-V	1 x AI, 2 x AO (isolated)	VACON 100 INDUSTRIAL / FLOW / X
OPT-B5-V	3 x RO	VACON 100 INDUSTRIAL / FLOW / X
OPT-B9-V	1 x RO, 5 x DI (42-240VAC)	VACON 100 INDUSTRIAL / FLOW / X
OPT-BF-V	1 x AO, 1 x DO, 1 x RO	VACON 100 INDUSTRIAL / FLOW / X
OPT-BH-V	3 x Temp sensor inputs (PT100, PT1000, KTY84-130, KTY84-150, KTY84-131, NI1000)	VACON 100 INDUSTRIAL / FLOW / X

Fieldbus boards D- and E -slot compatible

OPT-C4-V	LonWorks	VACON 100 INDUSTRIAL / FLOW / X
OPT-E3-V	Profibus DPV1	VACON 100 INDUSTRIAL / FLOW / X
OPT-E5-V	Profibus DPV1 (D9)	VACON 100 INDUSTRIAL / FLOW / X
OPT-E6-V	CANopen	VACON 100 INDUSTRIAL / FLOW / X
OPT-E7-V	DeviceNet	VACON 100 INDUSTRIAL / FLOW / X
OPT-E9-V	2-Port Ethernet (Modbus TCP/UDP, PROFINET, EtherNet/IP, RSTP, MRP)	VACON 100 INDUSTRIAL / FLOW / X

Safe Torque Off / ATEX (only E -slot)

OPT-BJ-V	Safe Torque Off/ATEX (slot E)	VACON 100 INDUSTRIAL / FLOW
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Others

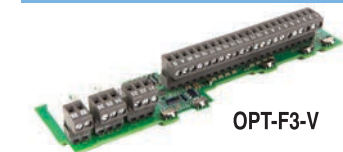
CAB-USB/RS485	PC cable for SW tools, USB to RS-485, cable: 3m	VACON 100 INDUSTRIAL / FLOW / X
OPT-BT-MC04-1	Battery package for real time clock	VACON 100 INDUSTRIAL / FLOW
OPT-BT-MC02-1	Battery package for real time clock	VACON 100 X

Brake Resistors

Code	Dimensions W x H x D mm	Power [kW] at 100% ED based on a 120s cycle	Resistance [Ω]	Weight kg	Suitability
BRR-0022-LD-5	60 x 31 x 335	0.24	63	1.2	VACON 100 INDUSTRIAL MR4
BRR-0031-LD-5	117 x 124 x 225	0.35	42	1.8	VACON 100 INDUSTRIAL MR5
BRR-0045-LD-5	117 x 124 x 426	0.71	21	3.3	VACON 100 INDUSTRIAL MR6
BRR-0061-LD-5	117 x 124 x 526	1.1	21	4	VACON 100 INDUSTRIAL MR7
BRR-0105-LD-5	260 x 101 x 860	2.3	6.5	12.8	VACON 100 INDUSTRIAL MR8
BRR-0300-LD-5	260 x 263 x 960	4.6	3.25	29	VACON 100 INDUSTRIAL MR9
BRR-0022-HD-5	124 x 126 x 540	0.61	63	3.5	VACON 100 INDUSTRIAL MR4
BRR-0031-HD-5	124 x 126 x 700	0.91	42	4.6	VACON 100 INDUSTRIAL MR5
BRR-0045-HD-5	260 x 101 x 700	1.8	21	11.3	VACON 100 INDUSTRIAL MR6
BRR-0061-HD-5	260 x 101 x 860	2.7	14	12.8	VACON 100 INDUSTRIAL MR7
BRR-0105-HD-5	480 x 300 x 530	5.9	6.5	25	VACON 100 INDUSTRIAL MR8
BRR-0300-HD-5	480 x 300 x 740	11.8	3.25	79	VACON 100 INDUSTRIAL MR9

HD = Heavy Duty (3 sec Full Power + 7 sec Ramp to Zero)

LD = Light Duty (5 sec Ramp to Zero)



OPT-F3-V



OPT-B1-V



OPT-B5-V



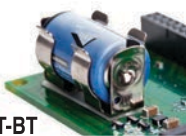
OPT-C4-V



OPT-E6-V



OPT-BJ-V



OPT-BT



BRR-0031-LD-5



BRR-0045-LD-5



BRR-0105-HD-5



BRR-0300-LD-5

VACON® NXP STANDALONE

Typical Applications

- Auxiliary equipment
- Pump and fans
- Main propulsion and bow thrusters
- Compressors
- Cranes and lifts

Features

- Extremely compact cabinet enclosure
- Delivered with ultra rapid AC fuses
- Optional built-in brake chopper and
- DC-link connectors

Benefits

- Maximize the utilization of available space while reducing the overall costs
- No need to consider any additional protection components

Hardware Configurations

- **IP21** Standard
- **IP54** (FR10 only) Optional (H: +20mm)
- Integrated ultra rapid fuses Standard
- Load switch (IEC or UL version) Optional
- EMC filtering L (EN 61800-3, category C3) Standard
- EMC filtering T (for IT -networks) Optional
- Brake chopper (optional)
- Cabling top entry H: +122 mm



VACON® 100 FLOW - STANDALONE

The VACON 100® FLOW enclosed drives are designed to meet the most demanding requirements for flexibility, robustness, compactness and service-friendliness. They are a smart choice for many applications and available from 75 to 630 kW at 380-500 V and 75 to 800 kW at 525-690 V.

Features

- Separate cooling air channel
- Common mode and dU/dt filters integrated in cooling air channel
- Back channel cooling option available
- Fast acting aR input fuses as standard
- Integrated output filters and fuse switch as options
- Configured to order with pre-engineered options
- Door-mounted control compartment separate from the main drive
- I/O wired to standard terminal blocks
- Dedicated area for signal lights and control switches
- All components accessible from the front of the enclosure

Proven Solution

Our VACON® 100 enclosed drives are compact and tested to meet harsh operating conditions. They can be installed in many different standard applications such as pumps or conveyors. The innovative air-cooling channel ensures reliable thermal handling of the enclosure and provides extended lifetime of the drive with trouble-free operation in tough environments. Approved EMC solutions ensure reliable operation of the drive without disturbing other electrical equipment.



VACON® 100 INDUSTRIAL - STANDALONE

The VACON 100® enclosed drives are designed to meet the most demanding requirements for flexibility, robustness, compactness and service-friendliness. They are a smart choice for many applications and available from 75 to 630 kW at 380-500 V and 75 to 800 kW at 525-690 V.

Features

- Separate cooling air channel
- Common mode and dU/dt filters integrated in cooling air channel
- Back channel cooling option available
- Fast acting aR input fuses as standard
- Integrated output filters and fuse switch as options
- Configured to order with pre-engineered options
- Door-mounted control compartment separate from the main drive
- I/O wired to standard terminal blocks
- Dedicated area for signal lights and control switches
- All components accessible from the front of the enclosure

Proven Solution

Our VACON 100® enclosed drives are compact and tested to meet harsh operating conditions. They can be installed in many different standard applications such as pumps or conveyors. The innovative air-cooling channel ensures reliable thermal handling of the enclosure and provides extended lifetime of the drive with trouble-free operation in tough environments. Approved EMC solutions ensure reliable operation of the drive without disturbing other electrical equipment.



VACON® NXP

Ideal for demanding applications. VACON® NXP range offers the ultimate in motor control, for both induction and permanent magnet (PM) motors, gearless drive applications and paralleling solutions for high power motors. VACON® NXP is the smart drive of choice.

With fast fieldbus options and exceptional programming flexibility, your VACON® NXP is easily integrated into any plant's automation system. Satisfied customers also rely on our enclosed cabinet drive solution, VACON® NXC, to perform in the most challenging industrial environments such as oil and gas, extrusion, mining, pulp and paper, water and wastewater applications.



VACON NXP - Three Phase Input **380-500V**, Three Phase Output **3 x 400V IP21/Type 1**, Air-cooled, Wall-mounted, EMC Class H

Code	Low Overload Ratings			High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 400V (kW)	Continuous Current I _L (A)	110% Overload Current (A)	Motor Power 400V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
NXP00035A2H1SSVA1A200000	1,1	3,3	3,6	0,75	2,2	3,3	FR4	128 x 292 x 190
NXP00045A2H1SSVA1A200000	1,5	4,3	4,7	1,1	3,3	5	FR4	128 x 292 x 190
NXP00055A2H1SSVA1A200000	2,2	5,6	6,2	1,5	4,3	6,5	FR4	128 x 292 x 190
NXP00075A2H1SSVA1A200000	3	7,6	8,4	2,2	5,6	8,4	FR4	128 x 292 x 190
NXP00095A2H1SSVA1A200000	4	9	9,9	3	7,6	11,4	FR4	128 x 292 x 190
NXP00125A2H1SSVA1A200000	5,5	12	13,2	4	9	13,5	FR4	128 x 292 x 190
NXP00165A2H1SSVA1A200000	7,5	16	17,6	5,5	12	18	FR5	144 x 391 x 214
NXP00225A2H1SSVA1A200000	11	23	25,3	7,5	16	24	FR5	144 x 391 x 214
NXP00315A2H1SSVA1A200000	15	31	34	11	23	35	FR5	144 x 391 x 214
NXP00385A2H1SSVA1A200000	18,5	38	42	15	31	47	FR6	195 x 519 x 237
NXP00455A2H1SSVA1A200000	22	46	51	18,5	38	57	FR6	195 x 519 x 237
NXP00615A2H1SSVA1A200000	30	61	67	22	46	69	FR6	195 x 519 x 237
NXP00725A2H1SSVA1A200000	37	72	79	30	61	92	FR7	237 x 591 x 257
NXP00875A2H1SSVA1A200000	45	87	96	37	72	108	FR7	237 x 591 x 257
NXP01055A2H1SSVA1A200000	55	105	116	45	87	131	FR7	237 x 591 x 257
NXP01405A2H1SSVA1A200000	75	140	154	55	105	158	FR8	291 x 758 x 344
NXP01685A2H1SSVA1A200000	90	170	187	75	140	210	FR8	291 x 758 x 344
NXP02055A2H1SSVA1A200000	110	205	226	90	170	255	FR8	291 x 758 x 344
NXP02615A2H1SSGA1A200000	132	261	287	110	205	308	FR9	480 x 1150 x 362
NXP03005A2H1SSGA1A200000	160	300	330	132	245	368	FR9	480 x 1150 x 362

VACON NXP - Three Phase Input **525-690V**, Three Phase Output **3 x 525V IP21/Type 1**, Air-cooled, Wall-mounted, EMC Class L

Code	Low Overload Ratings			High Overload Ratings			Frame Size	Dimensions (mm) W x H x D
	Motor Power 690V (kW)	Continuous Current I _L (A)	110% Overload Current (A)	Motor Power 690V (kW)	Continuous Current I _H (A)	150% Overload Current (A)		
NXP00046A2L0SSVA1A200000	3	4,5	5	2,2	3,2	4,8	FR6	195 x 519 x 237
NXP00056A2L0SSVA1A200000	4	5,5	6,1	3	4,5	6,8	FR6	195 x 519 x 237
NXP00076A2L0SSVA1A200000	5,5	7,5	8,3	4	5,5	8,3	FR6	195 x 519 x 237
NXP00106A2L0SSVA1A200000	7,5	10	11	5,5	7,5	11,3	FR6	195 x 519 x 237
NXP00136A2L0SSVA1A200000	11	13,5	14,9	7,5	10	15	FR6	195 x 519 x 237
NXP00186A2L0SSVA1A200000	15	18	19,8	11	13,5	20,3	FR6	195 x 519 x 237
NXP00226A2L0SSVA1A200000	18,5	22	24,2	15	18	27	FR6	195 x 519 x 237
NXP00276A2L0SSVA1A200000	22	27	29,7	18,5	22	33	FR6	195 x 519 x 237
NXP00346A2L0SSVA1A200000	30	34	37	22	27	41	FR6	195 x 519 x 237
NXP00416A2L0SSVA1A200000	37,5	41	45	30	34	51	FR7	237 x 591 x 257
NXP00526A2L0SSVA1A200000	45	52	57	37,5	41	62	FR7	237 x 591 x 257
NXP00626A2L0SSVA1A200000	55	62	68	45	52	78	FR8	291 x 758 x 344
NXP00806A2L0SSVA1A200000	75	80	88	55	62	93	FR8	291 x 758 x 344
NXP01006A2L0SSVA1A200000	90	100	110	75	80	120	FR8	291 x 758 x 344
NXP01256A2L0SSGA1A200000	110	125	138	90	100	150	FR9	480 x 1150 x 362
NXP01446A2L0SSGA1A200000	132	144	158	110	125	188	FR9	480 x 1150 x 362
NXP01706A2L0SSGA1A200000	160	170	187	132	144	216	FR9	480 x 1150 x 362
NXP02086A2L0SSGA1A200000	200	208	229	160	170	255	FR9	480 x 1150 x 362

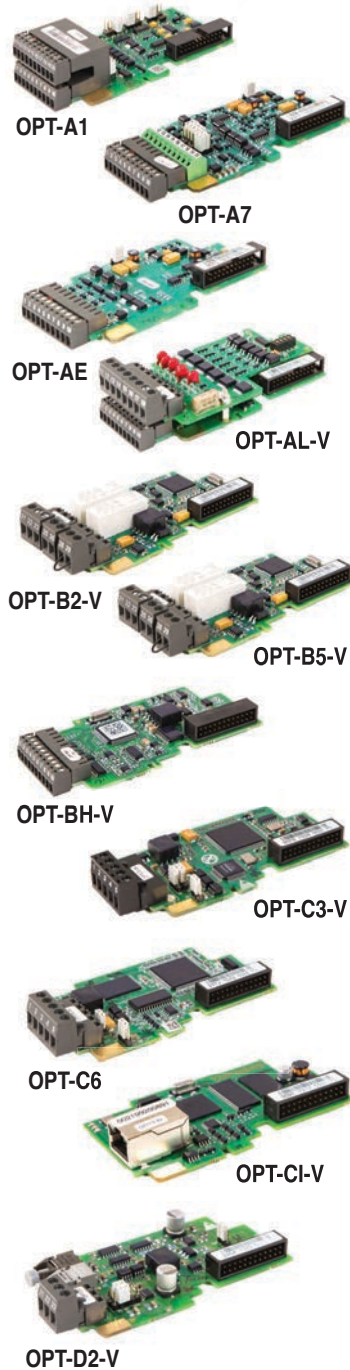
VACON® NX OPTIONS

VACON NX OPTIONS - Display panels, Door installation sets, RS232 cables, Fiber optic cables



Code	Description	Suitability
PAN-A	Alphanumeric display panel	NXP
PAM-G	Graphical display panel	NXP
Door installation sets		
DRA-02B	Door installation set for display panel, 2m cable	NXP
DRA-04B	Door installation set for display panel, 4m cable	NXP
RS232 cables		
RS232C-02M	2m RS232 serial link cable, pin to pin	NXP
RS232C-04M	4m RS232 serial link cable, pin to pin	NXP
RS232-01M	1,5m RS232 PC cable	NXP
Fiber optic cables for system bus (OPT-D1, OPT-D2)		
SYS-2M	Fiber optic cable (pair), 2m	NXP
SYS-4M	Fiber optic cable (pair), 4m	NXP
SYS-10M	Fiber optic cable (pair), 10m	NXP

VACON NX OPTIONS I/O cards



Code	Description	Suitability
OPT-A1	6DI, 1DO, 2AI(mA/V), 1AO(mA/V), +10 Vref, +24V/EXT+24V	NXP
OPT-A2	2RO(NO/NC)	NXP
OPT-A3-V	1RO(NO/NC), 1RO(NO), 1Thermistor Input	NXP
OPT-A4-V	3DI(Encoder RS422), 2DI (Qualifier+Fast Input), Out +5V/+15V/+24V	NXP
OPT-A5-V	3DI(Encoder 10...24V), 2DI (Qualifier+Fast Input), Out +15V/+24V	NXP
OPT-A7	Double encoder (Wide Range), 6DI, 2DO	NXP
OPT-A8	As OPT-A1 , but analog I/O and +10Vref galv. de-coupled as a group	NXP
OPT-A9	As OPT-A1 , but 2,5 mm ² terminals (Not with AF board)	NXP
OPT-AE	Encoder board (Wide Range), 3DI(Encoder 10...24 V), Out +15V/+24V, 2DO (encoder divider and direction)	NXP
OPT-AF-V	STO SIL2/PL"d" + ATEX appr. Thermistor, all boards need to be varnished	NXP
OPT-AK-V	SIN/COS encoder interface	NXP
OPT-AL-V	6DI (42...240VAC), 2AI, 2AO, 1DO, Out 15V / 24V	NXP
OPT-AN-V	6DI (Galv. de-coupled as a group), 2AI and 2AO (Programmable 0...20mA, 4...20mA, 0...10V, 2...10V, -10...+10V)	NXP
OPT-B1-V	6DI/DO (programmable, DI or DO)	NXP
OPT-B2-V	1RO(NO/NC), 1RO(NO), Thermistor Input	NXP
OPT-B4-V	1AI(mA, isolated), 2AO(mA, isolated), +24V/EXT+24V	NXP
OPT-B5-V	3RO(NO)	NXP
OPT-B8-V	3Pt100, +24 V/EXT+24 V	NXP
OPT-B9-V	1RO(NO), 5 pcs of 41...240 VAC input	NXP
OPT-BB	ENDAT encoder card, 2xDO (RS422)	NXP
OPT-BC	RESOLVER, 3x DO (Wide Range)	NXP
OPT-BE-V	SSI and Endat Encoders	NXP
OPT-BH-V	3 x Temp sensor inputs (PT100, PT1000, KTY84-130, KTY84-150, KTY84-131, NI1000)	NXP
OPT-BL-V	Advanced safety option, requires AF board	NXP
OPT-BM-V	Advanced safety option - Pulse encoder interface, requires AF board	NXP
OPT-BN-V	Advanced safety option - SIN/COS encoder interface, requires AF board	NXP
OPT-C2	Modbus RTU / N2	NXP
OPT-C3-V	Profibus DP	NXP
OPT-C4-V	LonWorks	NXP
OPT-C5-V	Profibus DP (D9 type connector)	NXP
OPT-C6	CANopen	NXP
OPT-C7-V	DeviceNet	NXP
OPT-C8	Modbus RTU / N2 (D9 type connector)	NXP
OPT-CI-V	Modbus TCP/IP	NXP
OPT-CJ-V	BACnet MS/TP	NXP
OPT-CG-V	S2 Protocol	NXP
OPT-CP-V	ProfiNet I/O	NXP
OPT-CQ-V	Ethernet/IP	NXP
OPT-D1	System Bus adapter (2x fiber optic cable)	NXP
OPT-D2-V	System Bus (1x fiber optic cable) & CAN-BUS (Galv. Decoupled)	NXP
OPT-D3	RS232 adapter card (not galvanically decoupled)	NXP
OPT-D6-V	CAN-Bus (Galv. Decoupled)	NXP
OPT-D7	Line voltage measurement board	NXP
OPT-E9-V	2-Port Ethernet option (Modbus TCP/UDP, PROFINET, EtherNet/IP, RSTP, MRP)	NXP
OPT-EC-V	EtherCAT field bus	NXP

*Consult the Drives Team for assistance in selecting the correct rating for your application.

NEW

FU9000 DRIVES



- High performance vector control technology allows high torque output at low speeds, excellent dynamic characteristics and excellent overload capability.
- 115% smaller than general size VFD's facilitates easy installation in various applications
- Multiple digital and analogue inputs and outputs and built in Modbus communication

Mini Drive - FU9000MD Series

Code	Input Current	Output Current	Rated Output Power	Dimensions (mm) W x H x D
Single Phase Input 220-240V, Three Phase Output 3 x 230V				
FU9000MD-0R7G-S2	8.2A	4A	0.75kW	91 x 156 x 132
FU9000MD-1R5G-S2	14A	7A	1.5kW	91 x 156 x 132
FU9000MD-2R2G-S2	23A	10A	2.2kW	91 x 156 x 132
Three Phase Input 380-480V, Three Phase Output 3 x 400V				
FU9000MD-0R7G-4	3.4A	2.1A	0.75kW	91 x 156 x 132
FU9000MD-1R5G-4	5A	3.8A	1.5kW	91 x 156 x 132
FU9000MD-2R2G-4	5.5A	5.1A	2.2kW	91 x 156 x 132



- Open Loop
- Modbus-RTU Communication
- Automatic torque boost
- Slip Compensation
- Simplified parameters for easy start-up
- 4 Independent start-up ramps
- Flexible programmable I/O connection
- Comprehensive trip diagnostics
- Output frequency up to 500 Hz
- Built-in braking unit up to 18.5kW

General Purpose - FU9000D Series

Code	Input Current	Output Current	Rated Output Power	Dimensions (mm) W x H x D
Single Phase Input 220-240V, Three Phase Output 3 x 230V				
FU9000D-0R7G-S2	8.2A	4A	0.75kW	126 x 186 x 161
FU9000D-1R5G-S2	14A	7A	1.5kW	126 x 186 x 161
FU9000D-2R2G-S2	23A	9.6A	2.2kW	126 x 186 x 161
Three Phase Input 380-480V, Three Phase Output 3 x 400V				
FU9000D-0R7G-4	3.4A	2.1A	0.75kW	126 x 186 x 161
FU9000D-1R5G-4	5A	3.8A	1.5kW	126 x 186 x 161
FU9000D-2R2G-4	5.8A	5.1A	2.2kW	126 x 186 x 161
FU9000D-004G-4	10.5A	9A	3.7kW	126 x 186 x 161
FU9000D-5R5G-4	14.6A	13A	5.5kW	146 x 256 x 172
FU9000D-7R5G-4	20.5A	17A	7.5kW	146 x 256 x 172
FU9000D-011G-4	26A	25A	11kW	171 x 321 x 201
FU9000D-015G-4	35A	32A	15kW	171 x 321 x 201
FU9000D-018G-4	38.5A	37A	18.5kW	171 x 321 x 201
FU9000D-022G-4	46A	45A	22kW	255 x 400 x 235
FU9000D-030G-4	62A	60A	30kW	255 x 400 x 235
FU9000D-037G-4	76A	75A	37kW	255 x 400 x 235
FU9000D-045G-4	92A	91A	45kW	290 x 560 x 285
FU9000D-055G-4	113A	112A	55kW	290 x 560 x 285

AC/DC

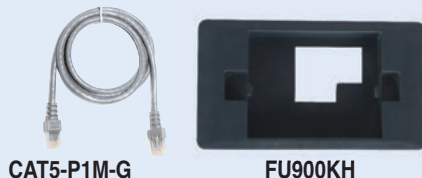


- Same Basic Functionality as FU9000D
- 99% Efficient MPPT
- Remote Monitoring using ACDC Smart App(with Optional GSM Communication Card)
- Allows Simultaneous AC and DC Input

Dual Input AC/DC Solar Drive - FU9000SI Series

Code	Max. PV Voc	DC Input Voltage Range	Rated Output Power	Max.PV Isc	Rated Output Current	Dimensions (mm) W x H x D
Single Phase Input 220-240V, Three Phase Output 3 x 230V						
FU9000SI-0R7G-S2	400VDC	200~400VDC	0.75kW	9.3A	4.2A	126 x 186 x 161
FU9000SI-1R5G-S2	400VDC	200~400VDC	1.5kW	15.7A	7.5A	126 x 186 x 161
FU9000SI-2R2G-S2	400VDC	200~400VDC	2.2kW	24A	10A	126 x 186 x 161
Three Phase Input 380-480V, Three Phase Output 3 x 400V						
FU9000SI-0R7G-4	800VDC	300~750VDC	0.75kW	3.4A	2.5A	126 x 186 x 161
FU9000SI-1R5G-4	800VDC	300~750VDC	1.5kW	5A	4.5A	126 x 186 x 161
FU9000SI-2R2G-4	800VDC	300~750VDC	2.2kW	5.8A	5.5A	126 x 186 x 161
FU9000SI-004G-4	800VDC	300~750VDC	4kW	13.5A	9.5A	126 x 186 x 161
FU9000SI-5R5G-4	800VDC	300~750VDC	5.5kW	19.5A	14A	146 x 256 x 172
FU9000SI-7R5G-4	800VDC	300~750VDC	7.5kW	25A	18.5A	146 x 256 x 172
FU9000SI-011G-4	800VDC	300~750VDC	11kW	32A	25A	171 x 321 x 201
FU9000SI-015G-4	800VDC	300~750VDC	15kW	40A	32A	171 x 321 x 201
FU9000SI-018G-4	800VDC	300~750VDC	18.5kW	47A	38A	171 x 321 x 201

Accessories



Code	Description
FU9000KH	Panel Mount Remote Keypad Holder
FU9000SI-GSM	GSM Communication Card for VSD FU9000SI
CAT5-P1M-G	Keypad Cable 1m
CAT5-P3M-G	Keypad Cable 3m

AUCOM CSXi SOFT STARTER SERIES

CSXi Series

Control Voltage: 220V

Input Voltage: 3 Phase 200-575V

- Compact Size
- Integrated Bypass Contactors
- Essential Motor Protection
- Simple to Use
- The **CSXi** soft starter is a Constant Current / Current Ramp system, complete with current measurement and control.

- In addition to soft start and soft stop, the **CSXi** provides range of motor protection functions, including motor overload, phase loss and excess start time.

- The **CSXi** also features a programmable relay.



Rated Current*		Code	Dimensions (mm) H x W x D
Light Duty	Heavy Duty		
18A	17A	CSXi-007-61	203 x 89 x 165
34A	30A	CSXi-015-61	203 x 89 x 165
48A	40A	CSXi-022-61	203 x 89 x 165
60A	49A	CSXi-030-61	203 x 89 x 165
75A	65A	CSXi-037-61	215 x 145 x 193
85A	73A	CSXi-045-61	215 x 145 x 193
100A	96A	CSXi-055-61	215 x 145 x 193
140A	120A	CSXi-075-61	240 x 202 x 214
170A	142A	CSXi-090-61	240 x 202 x 214
200A	165A	CSXi-110-61	240 x 202 x 214

END OF RANGE

AUCOM EMX3 SOFT STARTER SERIES

Control Voltage: 220V

- Advanced Start & Stop Control Functions
- Full Graphical LCD Display with Real Language Text
- Integrated Bypass Contactors
- Extensive Motor Protections
- With an impressive range of features, the **EMX3** delivers superior performance and an unprecedented level of flexibility in a compact and user-friendly package.
- The **EMX3** doesn't just start and stop your machinery with Constant Current and Current Ramp, it also features the innovative XLR-8 Adaptive Acceleration Control. XLR-8 gives you the ability to precisely manage your starting and stopping acceleration, reducing downtime and eliminating water hammer problems.



Rated Current*		Code EMX3 (380-690VAC)	Dimensions (mm) H x W x D	Rated Current*		Code EMX3 (380-690VAC)	Dimensions (mm) H x W x D
Light Duty	Heavy Duty			Light Duty	Heavy Duty		
23A	17A	EMX3-0023B-711	295 x 156 x 192	700A	512A	EMX3-0700B-711	620 x 430 x 296
50A	37A	EMX3-0050B-711	295 x 156 x 192	820A	606A	EMX3-0820B-711	620 x 430 x 296
350A	284A	EMX3-0350B-711	440 x 424 x 298	920A	684A	EMX3-0920B-711	620 x 430 x 296
425A	355A	EMX3-0425B-711	440 x 424 x 298	1000A	796A	EMX3-1000B-711	620 x 430 x 296
580A	425A	EMX3-0580B-711	620 x 430 x 296				

Accessories



995-04938-00



995-08133-00



995-04803-00



995-04804-00



PIM

Code	Description	Code	Description
995-08133-00	EMX3 Keypad Mounting Kit (3m)	PIM-MB-01	Modbus Interface
995-04803-00	EMX3 I/O Expansion Card	PIM-PB-01	Profibus Interface
995-04804-00	EMX3 RTD/Ground Fault Expansion Card	PIM-USB-01	USB Interface
PIM-DN-01	DeviceNet Interface	PIM-MT-01	Modbus TCP Interface
		PIM-PN-01	Profinet Interface

AUCOM EMX4 SOFT STARTER SERIES

The **EMX4** simplifies the installation and operation of motor starting systems to reduce installation cost and time.

XLR-8 Acceleration Control

Torque or Current Control start modes influence acceleration but only XLR-8 puts you in direct control of ramp profiles and start times. Select a ramp profile and time then let the **EMX4** do the rest. XLR-8 technology auto-tunes for the connected motor and load conditions to deliver the specified performance.



Start Here



Select a starter and diagnose issues for AuCom soft starters from the palm of your hand with the AuCom Start Here app. Enter application details to get an instant model recommendation & supporting datasheet.



EMX4 Digital Soft Starter - Control Voltage: 110/230V

Code EMX4E (200-525VAC Input)	Code EMX4I (200-525VAC Input)	Code EMX4I (380-690VAC Input)	Standard Duty @ 40°C		Heavy Duty @ 40°C		Dimensions (mm) H x W x D
			kW @ 400V	FLC Amps	kW @ 400V	FLC Amps	
EMX4E-0024B-511	EMX4I-0024B-511	EMX4I-0024B-711	11	20	7.5	16	336 x 152 x 231
EMX4E-0042B-511	EMX4I-0042B-511	EMX4I-0042B-711	18.5	34	15	27	336 x 152 x 231
EMX4E-0052B-511	EMX4I-0052B-511	EMX4I-0052B-711	22	42	18.5	35	336 x 152 x 231
EMX4E-0064B-511	EMX4I-0064B-511	EMX4I-0064B-711	30	63	22	51	336 x 152 x 231
EMX4E-0069B-511	EMX4I-0069B-511	EMX4I-0069B-711	37	69	30	62	336 x 152 x 231
EMX4E-0105B-511	EMX4I-0105B-511	EMX4I-0105B-711	45	86	37	69	336 x 152 x 231
EMX4E-0115B-511	EMX4I-0115B-511	EMX4I-0115B-711	55	108	45	86	336 x 152 x 231
EMX4E-0135B-511	EMX4I-0135B-511	EMX4I-0135B-711	60	129	55	103	336 x 152 x 231
EMX4E-0184B-511	EMX4I-0184B-511	EMX4I-0184B-711	75	144	60	116	495 x 216 x 243
EMX4E-0200B-511	EMX4I-0200B-511	EMX4I-0200B-711	90	171	75	138	495 x 216 x 243
EMX4E-0229B-511	EMX4I-0229B-511	EMX4I-0229B-711	110	194	90	157	495 x 216 x 243
EMX4E-0250B-511	EMX4I-0250B-511	EMX4I-0250B-711	132	244	110	200	495 x 216 x 243
EMX4E-0352B-511	EMX4I-0352B-511	EMX4I-0352B-711	160	287	132	234	495 x 216 x 243
EMX4E-0397B-511	EMX4I-0397B-511	EMX4I-0397B-711	185	323	150	263	523 x 216 x 243
EMX4E-0410B-511	EMX4I-0410B-511	EMX4I-0410B-711	220	410	200	380	523 x 216 x 243
EMX4E-0550B-511	EMX4I-0550B-511	EMX4I-0550B-711	300	527	220	427	523 x 216 x 243
EMX4E-0580B-511	EMX4I-0580B-511	EMX4I-0580B-711	315	579	250	470	523 x 216 x 243
-	-	EMX4I-0835B-711	355	654	300	535	572 x 447 x 310
-	-	EMX4I-0940B-711	400	736	315	603	572 x 447 x 310
-	-	EMX4I-1070B-711	500	950	450	785	572 x 447 x 310
-	-	EMX4I-1230B-711	600	1154	500	959	572 x 447 x 310
-	-	EMX4I-1250B-711	700	1250	600	1156	572 x 447 x 310

NEW



EMX4 Digital Soft Starter - Control Voltage: 110/230V

Code EMX4I (<1200VAC Input)	Standard Duty @ 40°C		Heavy Duty @ 40°C		Dimensions (mm) H x W x D
	kW @ 1000V	FLC Amps	kW @ 1000V	FLC Amps	
EMX4I-0202E-1211	220	202	185	137	662 x 447 x 306
EMX4I-0287E-1211	315	287	250	197	662 x 447 x 306
EMX4I-0387E-1211	400	387	355	267	662 x 447 x 306
EMX4I-0564E-1211	600	564	500	366	662 x 447 x 306
EMX4I-0629E-1211	700	629	500	414	662 x 447 x 306
EMX4I-0857E-1211	900	857	700	559	662 x 447 x 306
EMX4I-1092E-1211	1200	1092	1000	716	662 x 447 x 306

EMX4 Accessories

Code	Description
PIC-RC-01	Remote Keypad Card
PIC-RC-02	Remote Keypad Card & Keypad with cable & mounting kit
PIC-RK-01	Remote Keypad, with cable & mounting kit
995-17309-00	Fingerguard Kit, 0184B ~ 0580B, IP20
SCC-PC-01	Smart Control Card Pump Application
PIC-MB-01	Modbus RTU Card
PIC-DN-01	DeviceNet Card
PIC-PB-01	Profibus Card
PIC-MT-03	Modbus TCP Card + Ground Fault (Core Balance CT) Input
PIC-EI-03	Ethernet IP Card + Ground Fault (Core Balance CT) Input
PIC-PN-03	Profinet Card + Ground Fault (Core Balance CT) Input



Application or Industry Specific smart cards allow the EMX4 to act as a system controller, simplifying system design, installation & setup.

AUCOM EMX4 SOFT STARTER SERIES

Features and Options

Description	EMX4e	EMX4i
Motor Control		
Motor sets	1	2
Constant current and current ramp start	✓	✓
Adaptive control starting/stopping	✓	✓
Kickstart	-	✓
Coast to stop and TVR stop	✓	✓
DC brake	-	✓
Soft brake	-	✓
Jog (forward and reverse)	-	✓
Inside delta (6 wire) control	-	✓
Soft trip	✓	✓
Pump clean	-	✓
Reversing contractor control	-	✓
Motor Protection		
Motor thermistor	✓	✓
Current imbalance	✓	✓
Under/Overcurrent	✓	✓
Under/Overvoltage	-	✓
Under/Overpower(dry pump protection)	-	✓
Phase sequence(forward/reverse/any)	✓	✓
Phase loss	✓	✓
Power loss	✓	✓
Starts per hour limiting	✓	✓
Restart delay(pump back spin delay)	✓	✓
Integration and Management		
Multi-language graphical display	✓	✓
Configurable display screen	✓	✓
I/O and network expansion options	✓	✓
USB port and data logging	✓	✓
Analog output	✓	✓
Emergency run	✓	✓
Voltage measurement	-	✓
SCR fail PowerThrough operation	-	✓
Daily on/off scheduling	-	✓
Run timer mode (on/off cycle timer)	-	✓
Run simulation	✓	✓

Get it right from the start

Design of energy efficient systems requires consideration of the systems as a whole. Using energy efficient components is important but selection of the correct motor mode (fixed or variable speed) is also critical.

Approximately 80% of motor applications are most efficiently operated at a fixed speed. Using a variable speed drive (VSD) with such a system is hugely inefficient, regardless of the efficiency of the motor you are running.

EMX4 - MOST ENERGY EFFICIENT OUTCOME FOR FIXED SPEED APPLICATIONS

99.5%
Efficiency

Internal bypass makes EMX4 Soft Starters 99.5% efficient when running.

80%
Reduction in waste energy

Compared to a misapplied drive the 99.5% efficiency of EMX4 equates to around an 80% reduction in waste energy

0%
Harmonics

EMX4 produces no harmonics during run, improving overall power quality and eliminating system losses resulting from harmonics

IE3 CAPABLE

The use of IE3 motors offers the opportunity to maximise efficiency and save on operating costs, however there can be issues associated with starting these type of motors, including:

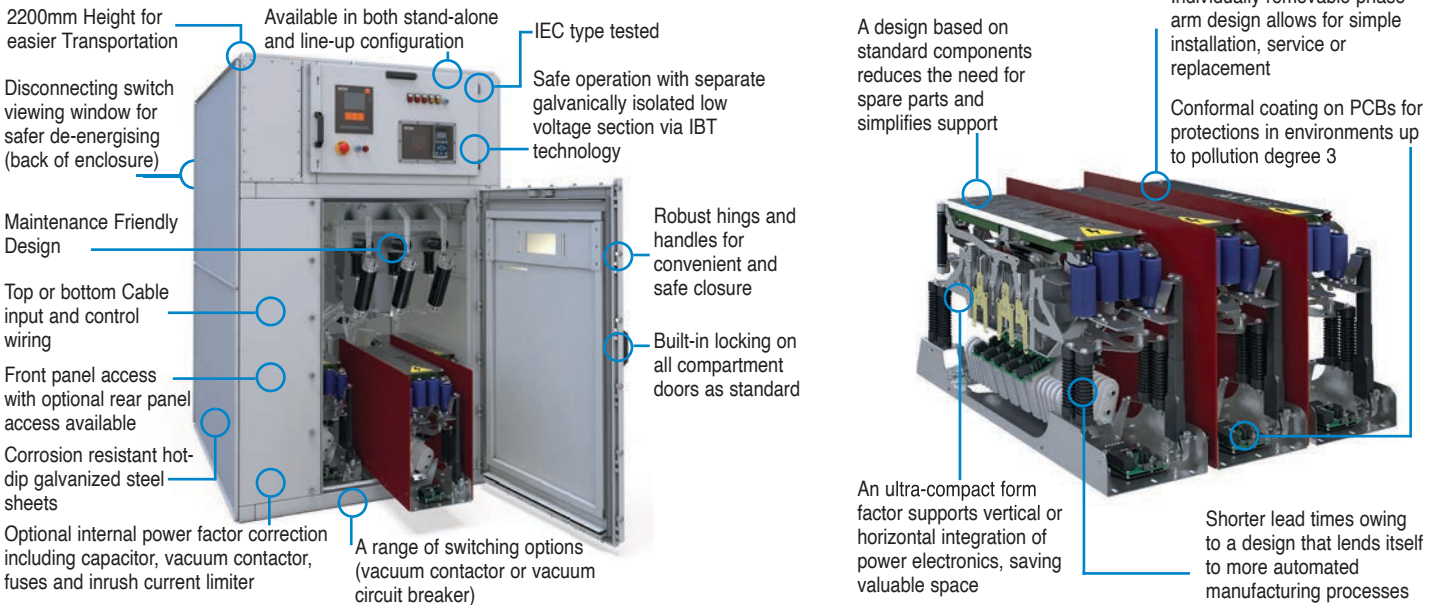
Higher inrush and starting currents that stress electrical supply circuits 'Spiky' pullout torque curves can make smooth control more difficult.

We have developed the EMX4 soft starter to be an ideal partner for running IE3 motors.

Our innovative XLR-8 adaptive acceleration technology auto-tunes for the connected motor (IE2 or IE3) and gives you precise control over the acceleration and deceleration of your motor without any of the downsides.

AUCOM L-SERIES MVE SOFT STARTER SERIES

The **MVE** soft starter is a powerful and reliable solution for your medium voltage starting requirements. Extensive personal safety features, and easy-to use graphical interface, and comprehensive built-in motor/load protection make this a well balanced solution for your needs. **MVE** brings together sophisticated soft start motor control functionality in a robust yet compact physical configuration. **MVE** is available as a fully furnished cabinet, or we can retrofit **MVE** into your existing system. Turn-key **MVE** kit-type soft starters can be installed with minimal downtime. In addition to standard packages, we can supply a complete line-up to meet your requirements.



□ - MVE - □□□□ - V□□ - SC□□ - E□ - F□ - L□ - B□ - PF□
 1 2 3 4 5 6 7 8 9

A Solution for any application

1. Panel Type		3. Supply Voltage		6. Fuse	
L	L-Series IEC standard	V02	2300 VAC 50/60 Hz	F0	Without fuse
M	M-Series IEC standard	V03	3300 VAC 50/60 Hz	F1	With fuse
P	P-Series NEMA standard	V04	4160 VAC 50/60 Hz	7. Line Switching Device	
2. Current Rating @ AC53b 4-30 : 1770		V06	6600 VAC 50/60 Hz	L0	Without line switching device
0070	70A	1100	1100A	V11	11000 VAC 50/60 Hz
0110	110A	1200	1200A	V13	13800 VAC 50/60 Hz
0200	200A	1300	1300A	4. Short Circuit Level	
0220	220A	1400	1400A	SC16	16 kA
0250	250A	1500	1500A	SC20	20 kA
0300	300A	1600	1600A	SC25	25 kA
0400	400A	1700	1700A	SC31	31.5 kA
0450	450A			SC40	40 kA
0500	500A			SC50	50 kA
0540	540A			5. Enclosure Configuration	
0600	600A			E0	Soft starter in panel only
0700	700A			E1	Soft starter + bypass device
0800	800A			E2	Soft starter + line device + bypass device
0900	900A			E3	Soft starter + disconnector switch + line device + bypass device
1000	1000A			8. Bypass Switching Device	
				B0	Without bypass switching device
				B1	Fixed bypass vacuum contactor
				B2	Withdrawable bypass vacuum contactor
				B3	Fixed bypass vacuum circuit breaker
				B4	Withdrawable bypass vacuum circuit breaker
				9. Internal PFC	
				PF0	Without PFC
				PF1	With PFC

Possible Applications

Contact drives division for a complete solution: drives@acdc.co.za

Description	Water / Wastewater	Power generation	Pulp / Paper	Chemical / Petrochemical	Mining	Cement / Stone	Wood processing	Building technology	Marine / Off shore	Industry / Production
Pump	✓	✓	✓	✓	-	-	-	✓	✓	✓
Fan/Blower/Aerator	✓	✓	-	✓	✓	✓	-	✓	-	✓
Compressor	-	✓	-	✓	-	-	-	✓	✓	✓
Chiller	-	-	-	✓	-	-	-	✓	✓	✓
Refiner	-	-	✓	-	-	-	✓	-	-	-
Extruder	-	-	-	✓	-	-	-	-	-	-
Centrifuge	-	-	-	✓	-	-	-	-	-	✓
Mill crusher	-	✓	-	-	✓	✓	-	-	-	-
Hacker	-	-	✓	-	-	-	✓	-	-	-
Conveyor	-	✓	-	-	✓	✓	-	-	-	✓
Roller	-	✓	-	-	-	-	-	-	-	✓
Rotating converter	-	✓	-	-	-	-	-	✓	✓	✓
Bow thruster	-	-	-	-	-	-	-	-	✓	-
Main propulsion	-	-	-	-	-	-	-	-	✓	-

NEW

VLT SOFT STARTER



ELTWIN SMC DIN Rail Mounted Soft Starter IP20 - Three Phase Input

Code	Max Motor Power(kW)	Max Full Load Current(A)	Input Voltage	Frame Size	Dimensions (mm) W x H x D
175G1001	1,5	3	400-480VAC	S	23 x 94 x 124
175G1005	7,5	15	400-480VAC	M	45 x 94 x 128
175G1008	11	25	400-480VAC	L	90 x 94 x 128

Features & Benefits

- Robust semiconductor design
- Almost unlimited number of starts per hour without derating
- Individual and accurate ramp time with rotary switches
- Adjustable starting torque from 0-85% of the direct on-line torque
- Maximum ambient temperature of 40°C without derating

* Maximum motor power is dependant on supply voltage

- Compact size
- Easy DIN rail mounting
- Rated operational current up to 25A/30A
- Output signal for Bypass and Start/Stop
- Ramp Up and Down time adjustable
- Initial Torque adjustable with kick start
- Wide control voltage range
- Meets EN 60947-4-2 requirements
- High number of start/stop operations per hour

INTEGRA INTELLIGENT ENERGY EFFICIENT SOFT STARTERS

WHILE STOCKS LAST



For Smooth Starting

Integra is one of the finest energy saving soft-starters in the world with a wide range of adjustable features that allow you to start even the most awkward load with ease.

- Fully adjustable ramp times from 0-255 seconds
- For high inertia loads current limit will provide you with a reduced current start.

- A kick start facility will help you to get things moving on loads with high static friction.

For Energy Reduction

Integra will quietly work on your behalf to:

- Ensure that your motors only consume the energy that they require
- Significantly reduce your energy bills
- Reduce levels of unscheduled breakdowns
- Switch your motors off automatically when they are not needed
- Protect the motors from excess heat and vibration

For Soft Starting

Using Integra as a soft-starter will put you back in control by:

- Significantly increasing the life of your contactors & drive train
- Preventing dips in supply when starting larger motors components
- Allowing you to attach more equipment to a single supply
- Reducing the worrying threat of peak demand penalties when starting
- Allowing you to switch your motors on and off at any time because of reduced start current

For Controlled Stopping

Through controlled deceleration, Integra Soft Stop:

- Provides an effective solution to minimise water hammer
- Reduces the probability of damage to pipe systems
- Provides safe, cost effective plug braking

In Practice

Integra works hard on your behalf:

- Assessing the load on the motor every cycle of the supply
- Adjusting the voltage proportionately to the load
- Preventing the motor from stalling by monitoring motor flux

Code 220-480V - 3ph	Code 525-575V - 3ph	Maximum Full Load Current	Motor kW		Cooling	Semi-Conductor Fuses	Dimensions (mm) W x H x D
			@380-480V	@525-575V			
-	SI-15/V575	30A	15	22	Natural	N/A	130 x 315 x 120
-	SI-22/V575	42A	22	30			
SI-30/V220-480/F220	SI-30/V575/F220	53A	30	37	Forced	N/A	130 x 385 x 215
-	SI-37/V575/F220	65A	37	45			
SI-55/V220-480/F220	SI-55/V575/F220	97A	55	75	Forced	Fitted	305 x 448 x 205
SI-75/V220-480/F220	-	145A	75	110			
SI-90/V220-480/F220	SI-90/V575/F220	170A	90	132	Forced	Fitted	380 x 670 x 225
SI-110/V220-480/F220	SI-110/V575/F220	205A	110	150			
SI-132/V220-480/F220	-	255A	132	186	Forced	Fitted	480 x 750 x 265
SI-150/V220-480/F220	SI-150/V575/F220	290A	150	220			
SI-186/V220-480/F220	SI-186/V575/F220	340A	186	260	Forced	Fitted	480 x 750 x 265
SI-225/V220-480/F220	SI-225/V575/F220	410A	225	315			
SI-260/V220-480/F-UN	-	475A	260	375	Forced	Fitted	480 x 750 x 265
SI-315/V220-480/F-UN	-	580A	315	450			

Leading manufacturer, importer, and distributor of high-quality electrical and solar products tailored for both industrial and residential sectors. With an extensive network of distributors and franchises spanning across South Africa, we ensure superior service and widespread availability of our products, that meets the highest standards of performance and innovation.

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AC/DC SFC DRIVES



5th Edition Feb 2026

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