MeK-Tronics

MKC1-FDP115A
F-Range contactor - 3P
200 A - AC-1
115 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	200A (at θ ≤ 40°C) at <= 440 V AC-1 115A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FF coil 24...440 V DC with MKX4FF coil 24...550 V AC 50/60 Hz with MKX1FF coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	200A (at θ ≤ 40°C)
Irms rated making capacity	1300A conforming to IEC 60947-4-1
Rated breaking capacity	1300A at 220...415V conforming to IEC 60947-4-1 1100A at 500V conforming to IEC 60947-4-1 900A at 660...690V conforming to IEC 60947-4-1 400A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1100A at θ ≤ 40°C - 10 s 640A at θ ≤ 40°C - 30 s 520A at θ ≤ 40°C - 1 min 400A at θ ≤ 40°C - 3 min 320A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 6 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 13 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	200A gG at <= 440 V
Average impedance per pole	0.40mOhm - Ith 200A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	18W AC-1 6W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 95mm² Power circuit: connector 1 cable(s) 95mm² Power circuit: bar 2 cable(s) - busbar cross section: 20 x 3 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 10N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	162mm
Width	163.5mm
Depth	175mm

*To be ordered separately

Coil Selection Guide:

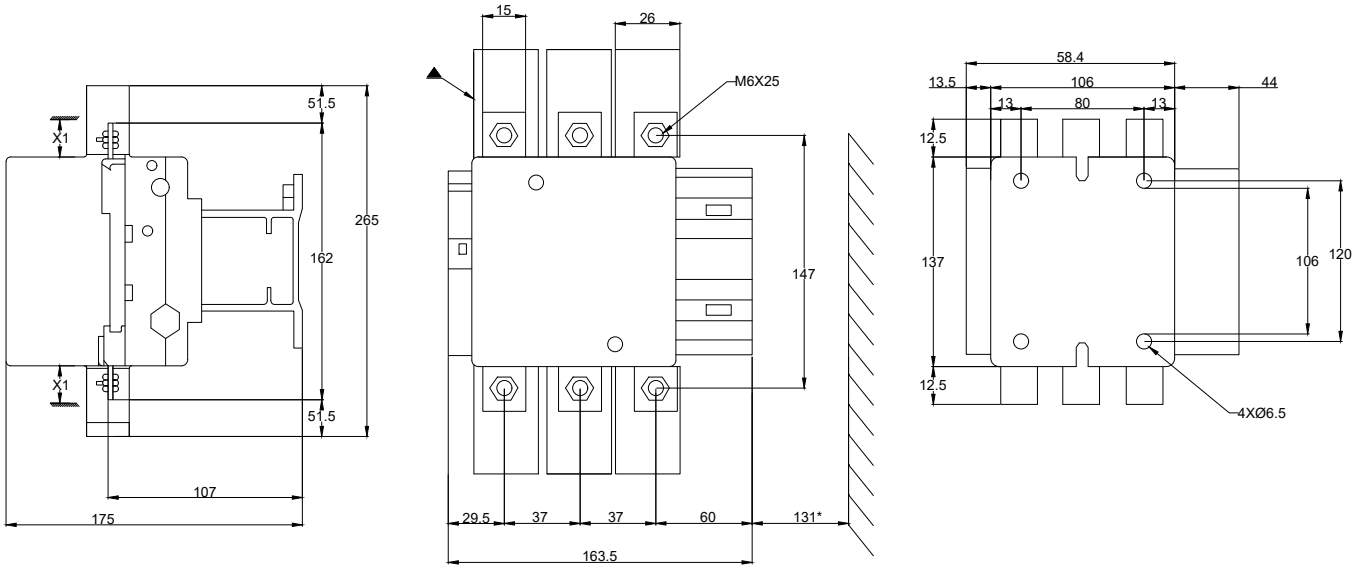
50 Hz	VA*	VA*	Un	gG/gL
MKX1-FF024	550	45	24V	12A
MKX1-FF042	550	45	42V	8A
MKX1-FF048	550	45	48V	6A
MKX1-FF110	550	45	110/115V	4A
MKX1-FF127	550	45	127V	4A
MKX1-FF220	550	45	220/230V	2A
MKX1-FF240	550	45	240V	2A
MKX1-FF380	550	45	380/400V	1A
MKX1-FF415	550	45	415/440V	1A
MKX1-FF500	550	45	500V	1A
MKX1-FF660	550	45	660V	1A

	W	W	Un	gG/gL
MKX4-FF024	543 • • • 665	3.94 • • • 4.83	24V	12A
MKX4-FF048			48V	6A
MKX4-FF110			110V	4A
MKX4-FF125			125V	4A
MKX4-FF220			200/230V	2A
MKX4-FF440			440/460V	1A

60 Hz	VA*	VA*	Un	gG/gL
MKX1-FF040	660	55	48V	6A
MKX1-FF092	660	55	110V	4A
MKX1-FF095	660	55	115/120V	4A
MKX1-FF162	660	55	220/208V	2A
MKX1-FF184	660	55	220V	2A
MKX1-FF187	660	55	230/240V	2A
MKX1-FF340	660	55	415V	2A
MKX1-FF360	660	55	440V	1A
MKX1-FF380	660	55	460/480V	1A
MKX1-FF550	660	55	660V	1A

40-400 Hz	VA*	VA*	Un	gG/gL
MKX9-FF042	690 • • • • • 855	6.6 • • • • • 8.1	42V	10A
MKX9-FF048			48V	8A
MKX9-FF110			110/115V	4A
MKX9-FF127			127V	4A
MKX9-FF220			220/230V	2A
MKX9-FF240			240V	2A
MKX9-FF380			380/400V	2A
MKX9-FF415			415/440V	1A
MKX9-FF500			500V	1A

Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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For more information: www.mek-tronics.com

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MKC1-FDP150A
F-Range contactor - 3P
250 A - AC-1
150 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	250A (at θ ≤ 40°C) at <= 440 V AC-1 150A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FF coil 24...440 V DC with MKX4FF coil 24...550 V AC 50/60 Hz with MKX1FF coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	250A (at θ ≤ 40°C)
Irms rated making capacity	1700A conforming to IEC 60947-4-1
Rated breaking capacity	1500A at 220...415V conforming to IEC 60947-4-1 1200A at 500V conforming to IEC 60947-4-1 1100A at 660...690V conforming to IEC 60947-4-1 450A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1200A at θ ≤ 40°C - 10 s 700A at θ ≤ 40°C - 30 s 600A at θ ≤ 40°C - 1 min 450A at θ ≤ 40°C - 3 min 350A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 6 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 13 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	250A gG at <= 440 V
Average impedance per pole	0.40mOhm - Ith 250A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	25W AC-1 9W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 120mm² Power circuit: connector 1 cable(s) 120mm² Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 18N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	170mm
Width	163.5mm
Depth	175mm

*To be ordered separately

Coil Selection Guide:

50 Hz	VA*	VA*	Un	gG/gL
MKX1-FF024	550	45	24V	12A
MKX1-FF042	550	45	42V	8A
MKX1-FF048	550	45	48V	6A
MKX1-FF110	550	45	110/115V	4A
MKX1-FF127	550	45	127V	4A
MKX1-FF220	550	45	220/230V	2A
MKX1-FF240	550	45	240V	2A
MKX1-FF380	550	45	380/400V	1A
MKX1-FF415	550	45	415/440V	1A
MKX1-FF500	550	45	500V	1A
MKX1-FF660	550	45	660V	1A

	W	W	Un	gG/gL
MKX4-FF024	543 • • • 665	3.94 • • • 4.83	24V	12A
MKX4-FF048			48V	6A
MKX4-FF110			110V	4A
MKX4-FF125			125V	4A
MKX4-FF220			200/230V	2A
MKX4-FF440			440/460V	1A

60 Hz	VA*	VA*	Un	gG/gL
MKX1-FF040	660	55	48V	6A
MKX1-FF092	660	55	110V	4A
MKX1-FF095	660	55	115/120V	4A
MKX1-FF162	660	55	220/208V	2A
MKX1-FF184	660	55	220V	2A
MKX1-FF187	660	55	230/240V	2A
MKX1-FF340	660	55	415V	2A
MKX1-FF360	660	55	440V	1A
MKX1-FF380	660	55	460/480V	1A
MKX1-FF550	660	55	660V	1A

40-400 Hz	VA*	VA*	Un	gG/gL
MKX9-FF042	690 • • • • • 855	6.6 • • • • • 8.1	42V	10A
MKX9-FF048			48V	8A
MKX9-FF110			110/115V	4A
MKX9-FF127			127V	4A
MKX9-FF220			220/230V	2A
MKX9-FF240			240V	2A
MKX9-FF380			380/400V	2A
MKX9-FF415			415/440V	1A
MKX9-FF500			500V	1A

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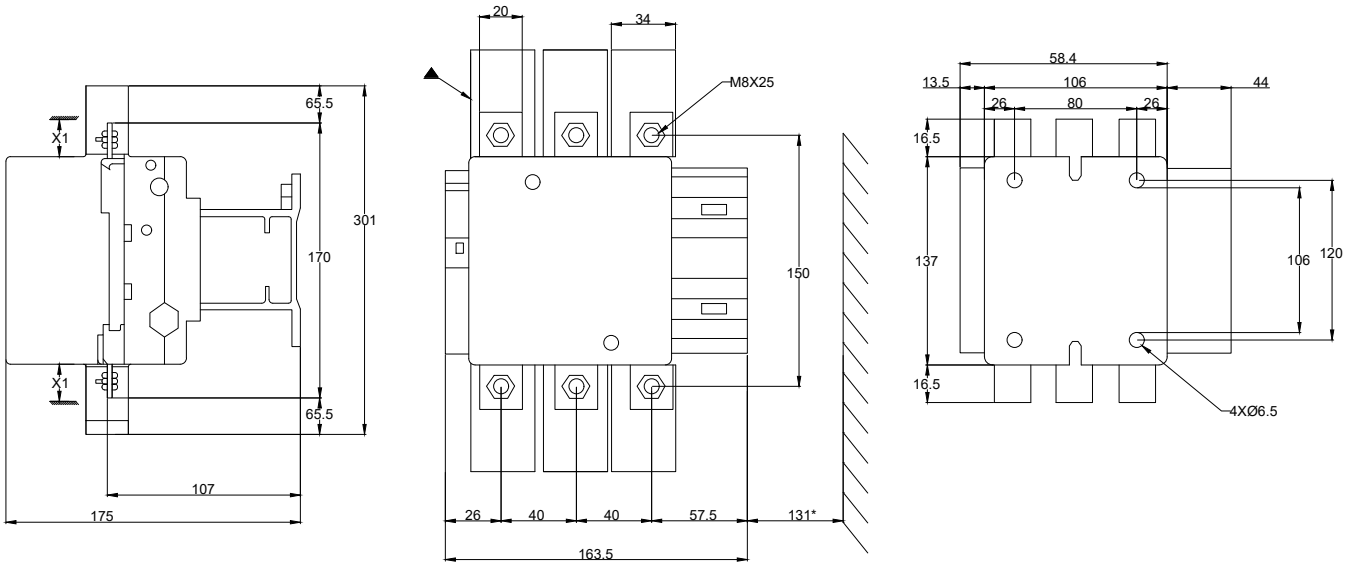
Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MKC1-FDP225A
F-Range contactor - 3P(3 NO)
315 A - AC-1
225 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	315A (at θ ≤ 40°C) at <= 440 V AC-1 225A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FG coil 24...440 V DC with MKX4FG coil 24...550 V AC 50/60 Hz with MKX1FG coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	315A (at θ ≤ 40°C)
Irms rated making capacity	2460A conforming to IEC 60947-4-1
Rated breaking capacity	2050A at 220...415V conforming to IEC 60947-4-1 1850A at 500V conforming to IEC 60947-4-1 1350A at 660...690V conforming to IEC 60947-4-1 780A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1800A at θ ≤ 40°C - 10 s 1000A at θ ≤ 40°C - 30 s 850A at θ ≤ 40°C - 1 min 560A at θ ≤ 40°C - 3 min 440A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	315A gG at <= 440 V
Average impedance per pole	0.36mOhm - Ith 315A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	35W AC-1 18W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 185mm² Power circuit: connector 1 cable(s) 185mm² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	197mm
Width	168.5mm
Depth	186mm

*To be ordered separately

Coil Selection Guide:

~ 50 Hz	VA*	VA*	Un	gG/gL
MKX1-FG024	805	55	24V	16A
MKX1-FG042	805	55	42V	8A
MKX1-FG048	805	55	48V	8A
MKX1-FG110	805	55	110/115V	4A
MKX1-FG127	805	55	127V	4A
MKX1-FG220	805	55	220/230V	2A
MKX1-FG240	805	55	240V	2A
MKX1-FG380	805	55	380/400V	1A
MKX1-FG415	805	55	415/440V	1A
MKX1-FG500	805	55	500V	1A
MKX1-FG660	805	55	600V	1A

⎓	W	W	Un	gG/gL
MKX4-FG024	737	4,13	24V	16A
MKX4-FG048			48V	8A
MKX4-FG110	●	●	110V	4A
MKX4-FG125	●	●	125V	4A
MKX4-FG220	902	5.07	200/230V	2A
MKX4-FG440			440/460V	1A

~ 60 Hz	VA*	VA*	Un	gG/gL
MKX1-FG040	970	66	48V	10A
MKX1-FG092	970	66	110V	6A
MKX1-FG095	970	66	115/120V	6A
MKX1-FG162	970	66	220/208V	4A
MKX1-FG184	970	66	220V	4A
MKX1-FG187	970	66	230/240V	4A
MKX1-FG340	970	66	415V	2A
MKX1-FG360	970	66	440V	2A
MKX1-FG380	970	66	460/480V	2A
MKX1-FG550	970	66	660V	1A

~ 40..400 Hz	VA*	VA*	Un	gG/gL
MKX9-FG042				16A
MKX9-FG048				10A
MKX9-FG110	950	8.9	110/115V	6A
MKX9-FG127	●	●	127V	6A
MKX9-FG220	●	●	220/230V	4A
MKX9-FG240	●	●	240V	4A
MKX9-FG380	1150	10.9	380/400V	2A
MKX9-FG415			415/440V	2A
MKX9-FG500			500V	2A

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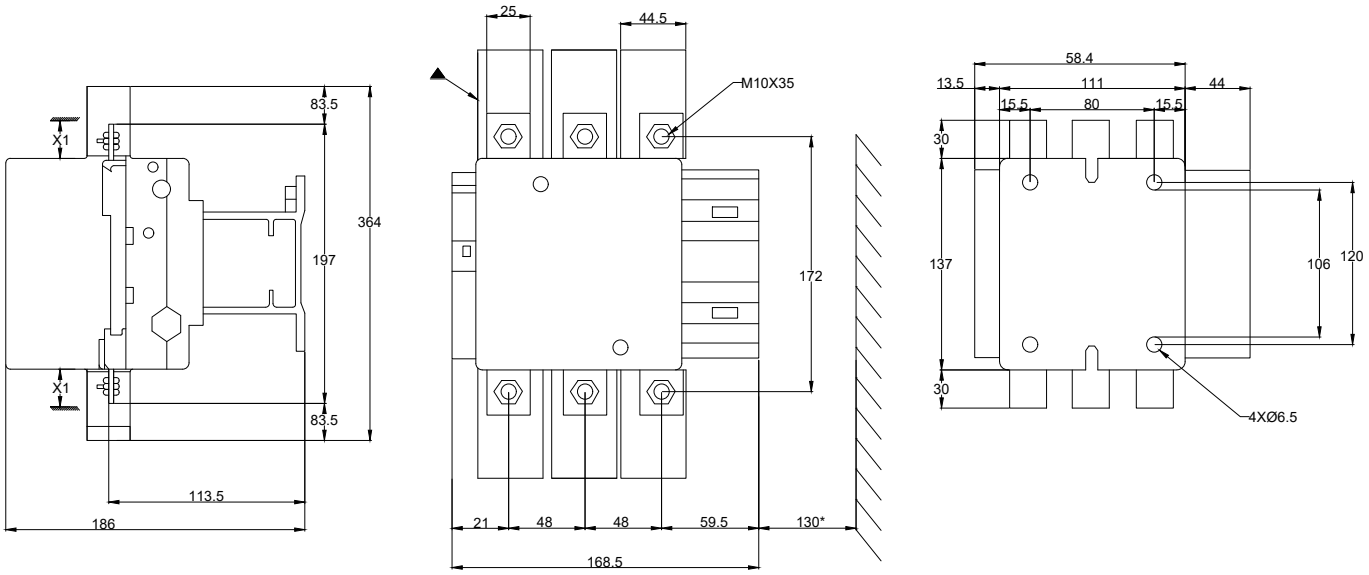
Mechanical Drawings:



Note:

1- (*) Minimum distance required for coil removal

2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MKC1-FDP265A
F-Range contactor - 3P
350 A - AC-1
265 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	350A (at θ ≤ 40°C) at <= 440 V AC-1 265A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FH coil 24...600 V AC with MKX1FH coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	350A (at θ ≤ 40°C)
Irms rated making capacity	2940A conforming to IEC 60947-4-1
Rated breaking capacity	2450A at 220...415V conforming to IEC 60947-4-1 2200A at 500V conforming to IEC 60947-4-1 1700A at 660...690V conforming to IEC 60947-4-1 800A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	2200A at θ ≤ 40°C - 10 s 1230A at θ ≤ 40°C - 30 s 950A at θ ≤ 40°C - 1 min 620A at θ ≤ 40°C - 3 min 480A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	350A gG at <= 440 V
Average impedance per pole	0.32mOhm - Ith 350A at 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	39W AC-1 22W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 240mm² Power circuit: connector 1 cable(s) 240mm² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	203mm
Width	201.5mm
Depth	218mm

*To be ordered separately

Coil Selection Guide:

40..400 Hz	VA*	VA*	Un	gG/gL
MKX1-FH0482			48V	10A
MKX1-FH1102	600	8	110/115V	6A
MKX1-FH1275	•	•	120/127V	6A
MKX1-FH2202	•	•	220/230V	4A
MKX1-FH2402	•	•	240V	4A
MKX1-FH3802	700	10	380/415V	2A
MKX1-FH5002			480/500V	2A

⎓	W	W	Un	gG/gL
MKX4-FH024			24V	16A
MKX4-FH048	655	3.68	48V	8A
MKX4-FH110	•	•	110V	4A
MKX4-FH125	•	•	125V	4A
MKX4-FH220	803	4.53	200/230V	2A
MKX4-FH440			440/460V	1A

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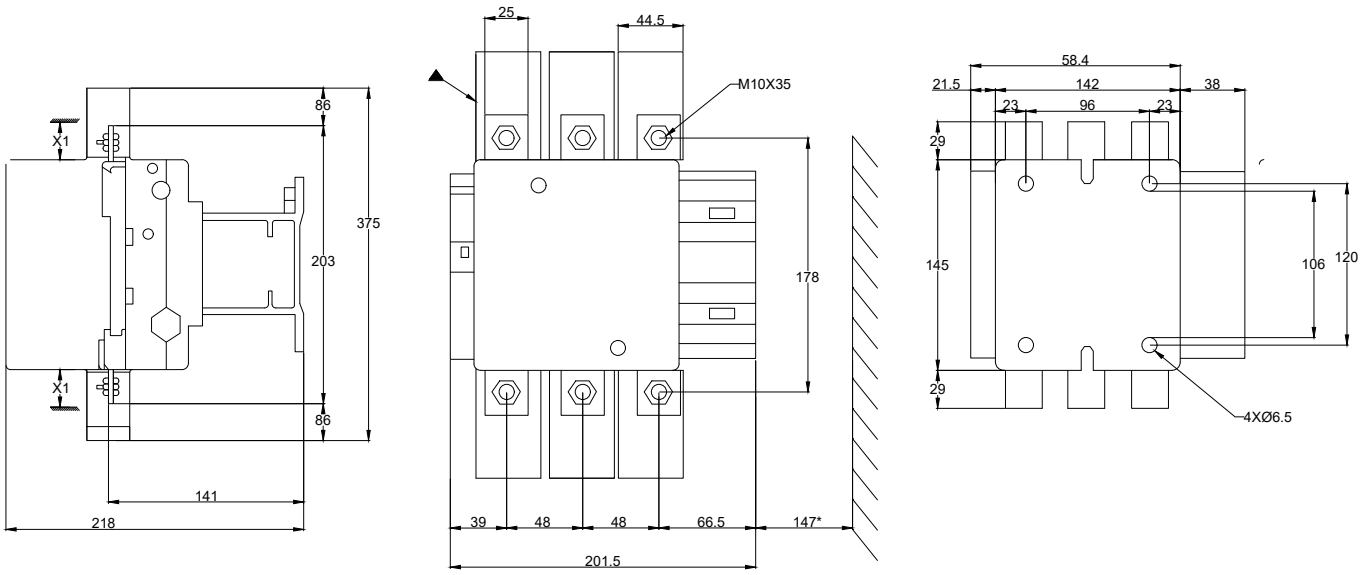
Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MeK-Tronics

MKC1-FDP330A
F-Range contactor - 3P
400 A - AC-1
330 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	400A (at θ ≤ 40°C) at <= 440 V AC-1 330A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FH coil 24...600 V AC with MKX1FH coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	400A (at θ ≤ 40°C)
Irms rated making capacity	3600A conforming to IEC 60947-4-1
Rated breaking capacity	3000A at 220...415V conforming to IEC 60947-4-1 2810A at 500V conforming to IEC 60947-4-1 2350A at 660...690V conforming to IEC 60947-4-1 1150A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	2650A at θ ≤ 40°C - 10 s 1800A at θ ≤ 40°C - 30 s 1300A at θ ≤ 40°C - 1 min 900A at θ ≤ 40°C - 3 min 750A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	400A gG at <= 440 V
Average impedance per pole	0.28mOhm - Ith 400A and 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	44W AC-1 31W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 240mm² Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	206 mm
Width	206 mm
Depth	226 mm

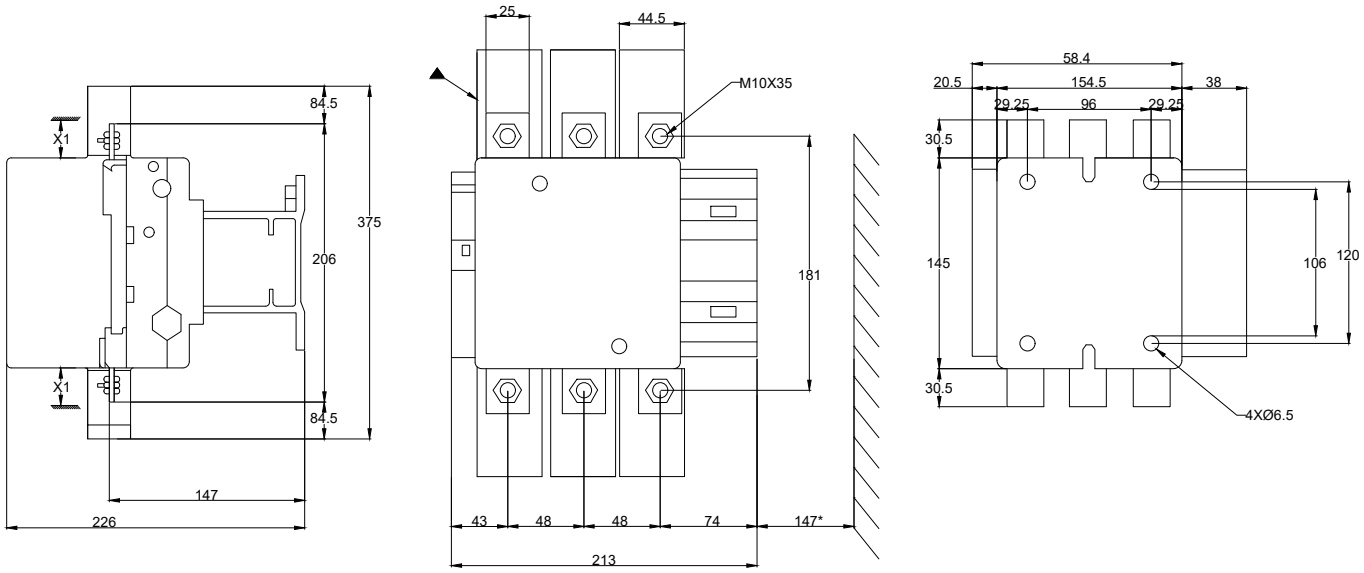
*To be ordered separately

Coil Selection Guide:

 40..400 Hz	 VA*	 VA*	Un	gG/gL
MKX1-FH0482			48V	10A
MKX1-FH1102	600	8	110/115V	6A
MKX1-FH1275	•	•	120/127V	6A
MKX1-FH2202	•	•	220/230V	4A
MKX1-FH2402	•	•	240V	4A
MKX1-FH3802	700	10	380/415V	2A
MKX1-FH5002			480/500V	2A

	 W	 W	Un	gG/gL
MKX4-FH024			24V	16A
MKX4-FH048	655	3.68	48V	8A
MKX4-FH110	•	•	110V	4A
MKX4-FH125	•	•	125V	4A
MKX4-FH220	•	•	200/230V	2A
MKX4-FH440	803	4.53	440/460V	1A

Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MeK-Tronics

MKC1-FDP400A
F-Range contactor - 3P
400 A - AC-1
330 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	500A (at θ ≤ 40°C) at <= 440 V AC-1 400A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FJ coil 48...660 V AC with MKX1FJ coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	500A (at θ ≤ 40°C)
Irms rated making capacity	4500A conforming to IEC 60947-4-1
Rated breaking capacity	4000A at 220...415V conforming to IEC 60947-4-1 3500A at 500V conforming to IEC 60947-4-1 3050A at 660...690V conforming to IEC 60947-4-1 1200A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	3600A at θ ≤ 40°C - 10 s 2400A at θ ≤ 40°C - 30 s 1700A at θ ≤ 40°C - 1 min 1200A at θ ≤ 40°C - 3 min 1000A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 1.5 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	500A gG at <= 440 V
Average impedance per pole	0.28mOhm - Ith 500A and 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	70W AC-1 45W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 150mm² Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	206mm
Width	211mm
Depth	227mm

*To be ordered separately

Coil Selection Guide:

40..400 Hz	VA*	VA*	Un	gG/gL
MKX1-FJ048	1000 • • • 1150	12 • • • 18	48V	10A
MKX1-FJ110			110/120V	6A
MKX1-FJ127			127V	6A
MKX1-FJ220			220/230V	4A
MKX1-FJ240			240V	4A
MKX1-FJ380			380/400V	2A
MKX1-FJ415			415/480V	2A
MKX1-FJ500			500V	2A

⎓	W	W	Un	gG/gL
MKX4-FJ048	920 ● ● 1140	4 ● ● 7.5	48V	10A
MKX4-FJ110			110V	6A
MKX4-FJ125			125V	6A
MKX4-FJ220			220V	4A
MKX4-FJ250			250V	4A
MKX4-FJ440			440V	2A

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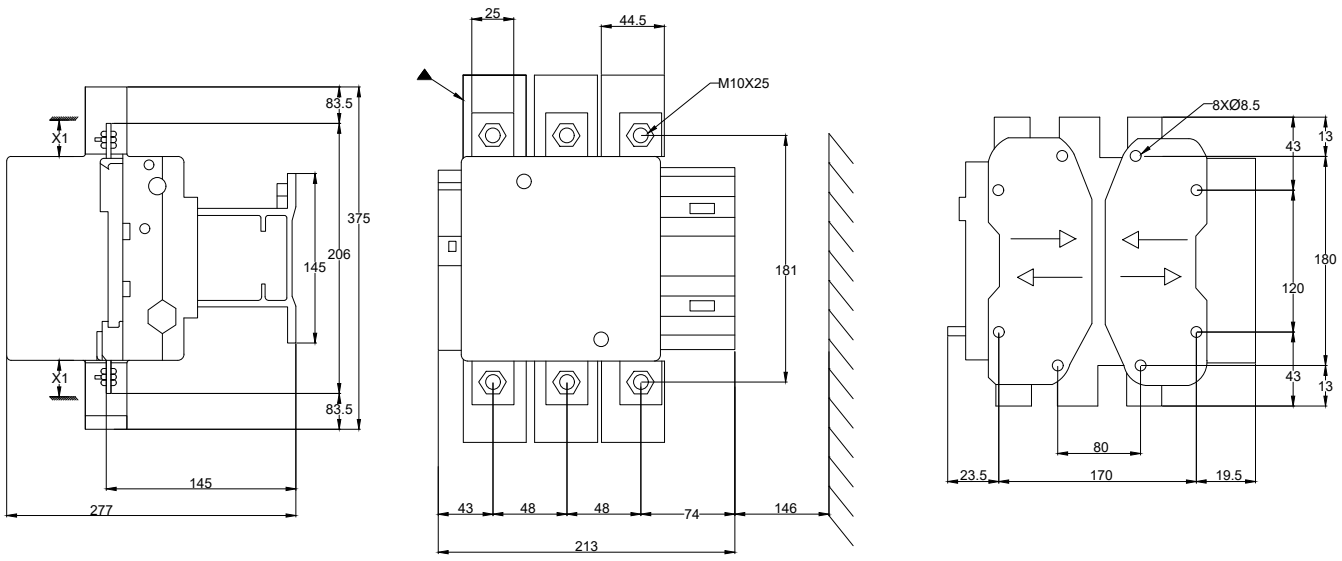
Mechanical Drawings:



Note:

1- (*) Minimum distance required for coil remo

2- (▲) Power terminal protection shro

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
15	20

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MeK-Tronics

MKC1-FDP500A
F-Range contactor - 3P
700 A - AC-1
500 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	3P
Power pole contact construction	3 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	700A (at θ ≤ 40°C) at <= 440 V AC-1 500A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FK coil 48...600 V AC with MKX1FK coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	700A (at θ ≤ 40°C)
Irms rated making capacity	5550A conforming to IEC 60947-4-1
Rated breaking capacity	5000A at 220...415V conforming to IEC 60947-4-1 4500A at 500V conforming to IEC 60947-4-1 3560A at 660...690V conforming to IEC 60947-4-1 2500A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	4200A at θ ≤ 40°C - 10 s 3200A at θ ≤ 40°C - 30 s 2400A at θ ≤ 40°C - 1 min 1500A at θ ≤ 40°C - 3 min 1200A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	700A gG at <= 440 V
Average impedance per pole	0.18mOhm - Ith 700A and 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	88W AC-1 45W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 240mm² Power circuit: bar 2 cable(s) - busbar cross section: 40 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	238 mm
Width	231 mm
Depth	241 mm

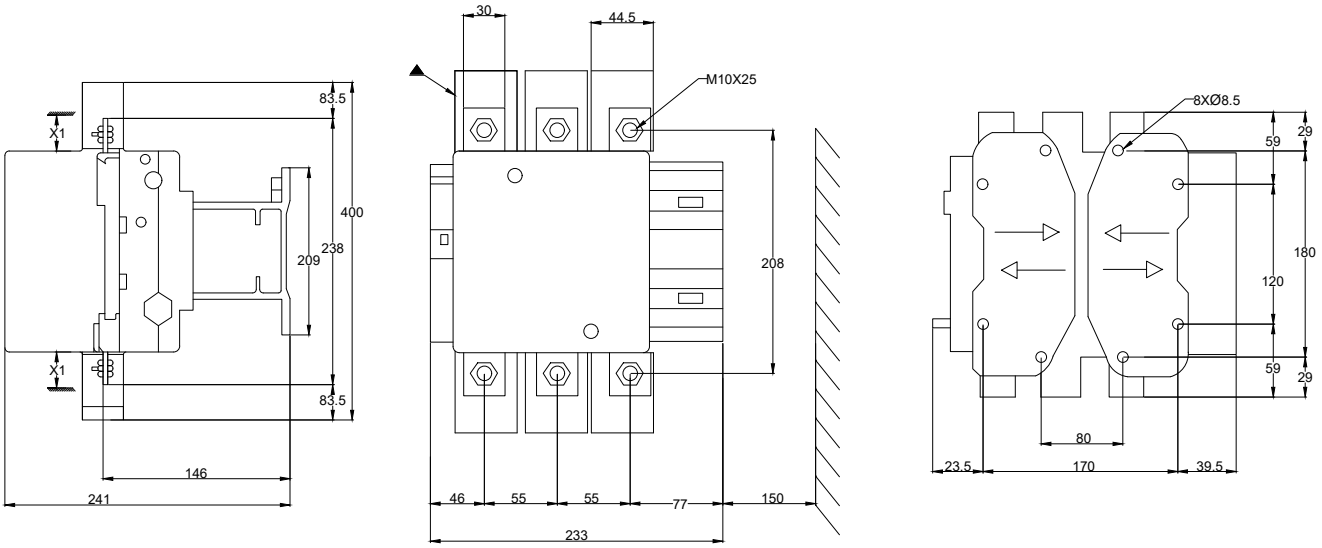
*To be ordered separately

Coil Selection Guide:

40..400Hz	VA*	VA*	Un	gG/gL
MKX1-FK048	1050 • • • • • 1150	16 • • • • • 20	48V	10A
MKX1-FK110			110/120V	6A
MKX1-FK127			127V	6A
MKX1-FK220			220/230V	4A
MKX1-FK240			240V	4A
MKX1-FK380			380/400V	2A
MKX1-FK415			415/480V	2A
MKX1-FK500			500V	2A

⎓	W	W	Un	gG/gL
MKX4-FK048	990 • • • • 1220	4.5 • • • • 8	48V	10A
MKX4-FK110			110V	6A
MKX4-FK125			125V	6A
MKX4-FK220			220V	4A
MKX4-FK250			250V	4A
MKX4-FK440			440V	2A

Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
15	20

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MKC1-FDP1154A
F-Range contactor - 4P(4 NO)
200 A - AC-1
115 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	200A (at θ ≤ 40°C) at <= 440 V AC-1 115A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FF coil 24...440 V DC with MKX4FF coil 24...550 V AC 50/60 Hz with MKX1FF coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	200A (at θ ≤ 40°C)
Irms rated making capacity	1300A conforming to IEC 60947-4-1
Rated breaking capacity	1300A at 220...415V conforming to IEC 60947-4-1 1100A at 500V conforming to IEC 60947-4-1 900A at 660...690V conforming to IEC 60947-4-1 400A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1100A at θ ≤ 40°C - 10 s 640A at θ ≤ 40°C - 30 s 520A at θ ≤ 40°C - 1 min 400A at θ ≤ 40°C - 3 min 320A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 6 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 13 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	200A gG at <= 440 V
Average impedance per pole	0.40mOhm - Ith 200A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	18W AC-1 6W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 95mm² Power circuit: connector 1 cable(s) 95mm² Power circuit: bar 2 cable(s) - busbar cross section: 20 x 3 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 10N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	162mm
Width	200.5mm
Depth	175mm

*To be ordered separately

Coil Selection Guide:

50 Hz	VA*	VA*	Un	gG/gL
MKX1-FF024	550	45	24V	12A
MKX1-FF042	550	45	42V	8A
MKX1-FF048	550	45	48V	6A
MKX1-FF110	550	45	110/115V	4A
MKX1-FF127	550	45	127V	4A
MKX1-FF220	550	45	220/230V	2A
MKX1-FF240	550	45	240V	2A
MKX1-FF380	550	45	380/400V	1A
MKX1-FF415	550	45	415/440V	1A
MKX1-FF500	550	45	500V	1A
MKX1-FF660	550	45	660V	1A

	W	W	Un	gG/gL
MKX4-FF024	543 • • • 665	3.94 • • • 4.83	24V	12A
MKX4-FF048			48V	6A
MKX4-FF110			110V	4A
MKX4-FF125			125V	4A
MKX4-FF220			200/230V	2A
MKX4-FF440			440/460V	1A

60 Hz	VA*	VA*	Un	gG/gL
MKX1-FF040	660	55	48V	6A
MKX1-FF092	660	55	110V	4A
MKX1-FF095	660	55	115/120V	4A
MKX1-FF162	660	55	220/208V	2A
MKX1-FF184	660	55	220V	2A
MKX1-FF187	660	55	230/240V	2A
MKX1-FF340	660	55	415V	2A
MKX1-FF360	660	55	440V	1A
MKX1-FF380	660	55	460/480V	1A
MKX1-FF550	660	55	660V	1A

40-400 Hz	VA*	VA*	Un	gG/gL
MKX9-FF042	690 • • • • • 855	6.6 • • • • • 8.1	42V	10A
MKX9-FF048			48V	8A
MKX9-FF110			110/115V	4A
MKX9-FF127			127V	4A
MKX9-FF220			220/230V	2A
MKX9-FF240			240V	2A
MKX9-FF380			380/400V	2A
MKX9-FF415			415/440V	1A
MKX9-FF500			500V	1A

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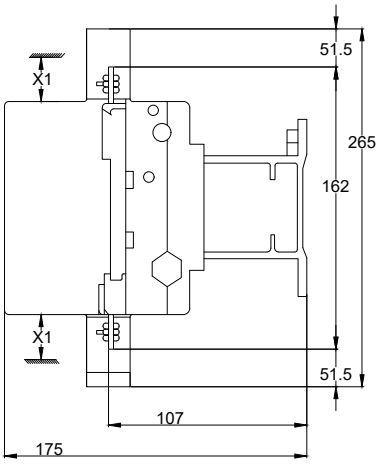
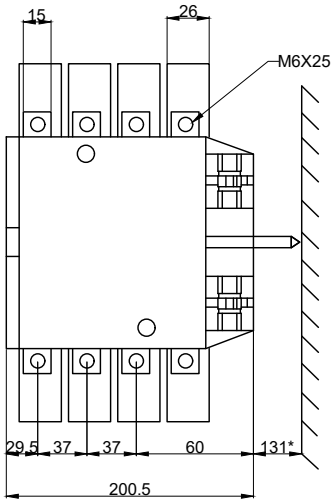
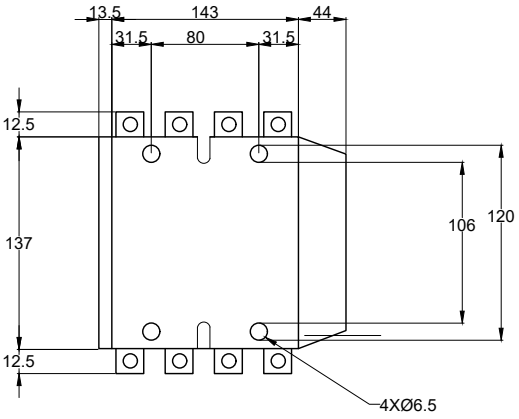
Mechanical Drawings:







Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MKC1-FDP1504A
F-Range contactor - 4P(4 NO)
250 A - AC-1
150 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	250A (at θ ≤ 40°C) at <= 440 V AC-1 150A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FF coil 24...440 V DC with MKX4FF coil 24...550 V AC 50/60 Hz with MKX1FF coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	250A (at θ ≤ 40°C)
Irms rated making capacity	1700A conforming to IEC 60947-4-1
Rated breaking capacity	1500A at 220...415V conforming to IEC 60947-4-1 1200A at 500V conforming to IEC 60947-4-1 1100A at 660...690V conforming to IEC 60947-4-1 450A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1200A at θ ≤ 40°C - 10 s 700A at θ ≤ 40°C - 30 s 600A at θ ≤ 40°C - 1 min 450A at θ ≤ 40°C - 3 min 350A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 6 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 13 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	250A gG at <= 440 V
Average impedance per pole	0.40mOhm - Ith 250A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	25W AC-1 9W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 120mm² Power circuit: connector 1 cable(s) 120mm² Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 18N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	170mm
Width	200.5mm
Depth	175mm

*To be ordered separately

Coil Selection Guide:

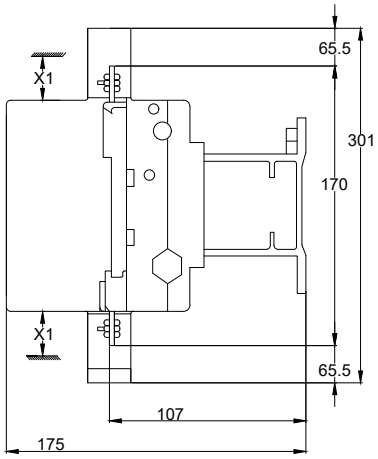
50 Hz	VA*	VA*	Un	gG/gL
MKX1-FF024	550	45	24V	12A
MKX1-FF042	550	45	42V	8A
MKX1-FF048	550	45	48V	6A
MKX1-FF110	550	45	110/115V	4A
MKX1-FF127	550	45	127V	4A
MKX1-FF220	550	45	220/230V	2A
MKX1-FF240	550	45	240V	2A
MKX1-FF380	550	45	380/400V	1A
MKX1-FF415	550	45	415/440V	1A
MKX1-FF500	550	45	500V	1A
MKX1-FF660	550	45	660V	1A

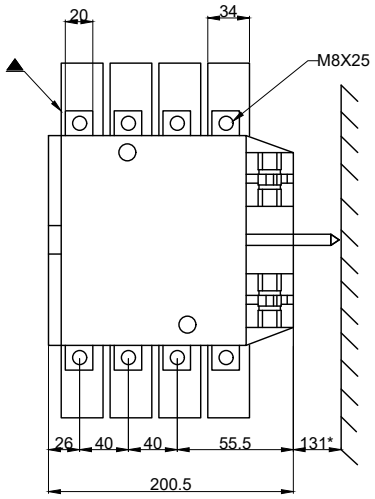
	W	W	Un	gG/gL
MKX4-FF024	543 • • • 665	3.94 • • • 4.83	24V	12A
MKX4-FF048			48V	6A
MKX4-FF110			110V	4A
MKX4-FF125			125V	4A
MKX4-FF220			200/230V	2A
MKX4-FF440			440/460V	1A

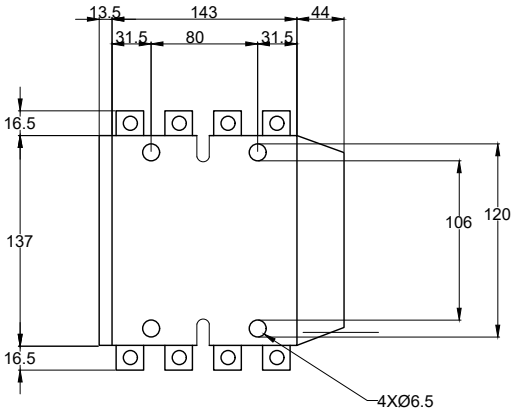
60 Hz	VA*	VA*	Un	gG/gL
MKX1-FF040	660	55	48V	6A
MKX1-FF092	660	55	110V	4A
MKX1-FF095	660	55	115/120V	4A
MKX1-FF162	660	55	220/208V	2A
MKX1-FF184	660	55	220V	2A
MKX1-FF187	660	55	230/240V	2A
MKX1-FF340	660	55	415V	2A
MKX1-FF360	660	55	440V	1A
MKX1-FF380	660	55	460/480V	1A
MKX1-FF550	660	55	660V	1A

40-400 Hz	VA*	VA*	Un	gG/gL
MKX9-FF042	690 • • • • 855	6.6 • • • • 8.1	42V	10A
MKX9-FF048			48V	8A
MKX9-FF110			110/115V	4A
MKX9-FF127			127V	4A
MKX9-FF220			220/230V	2A
MKX9-FF240			240V	2A
MKX9-FF380			380/400V	2A
MKX9-FF415			415/440V	1A
MKX9-FF500			500V	1A

Mechanical Drawings:







Note:

1- (*) Minimum distance required for coil removal.

2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MKC1-FDP1854A
F-Range contactor - 4P(4 NO)
275 A - AC-1
185 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	275A (at θ ≤ 40°C) at <= 440 V AC-1 185A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FG coil 24...440 V DC with MKX4FG coil 24...550 V AC 50/60 Hz with MKX1FG coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	275A (at θ ≤ 40°C)
Irms rated making capacity	2100A conforming to IEC 60947-4-1
Rated breaking capacity	1800A at 220...415V conforming to IEC 60947-4-1 1600A at 500V conforming to IEC 60947-4-1 1200A at 660...690V conforming to IEC 60947-4-1 600A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1500A at θ ≤ 40°C - 10 s 920A at θ ≤ 40°C - 30 s 740A at θ ≤ 40°C - 1 min 500A at θ ≤ 40°C - 3 min 400A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	275A gG at <= 440 V
Average impedance per pole	0.36mOhm - Ith 275A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	26W AC-1 12W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 150mm² Power circuit: connector 1 cable(s) 150mm² Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 18N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	174mm
Width	208.5mm
Depth	186mm

*To be ordered separately

Coil Selection Guide:

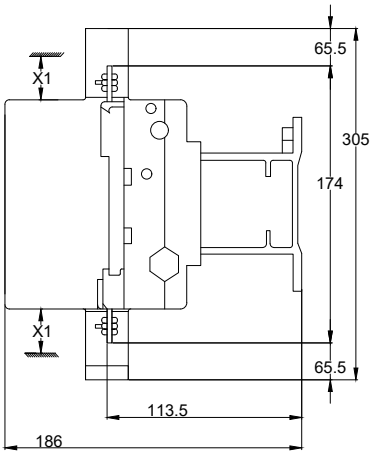
50 Hz	VA*	VA*	Un	gG/gL
MKX1-FG024	805	55	24V	16A
MKX1-FG042	805	55	42V	8A
MKX1-FG048	805	55	48V	8A
MKX1-FG110	805	55	110/115V	4A
MKX1-FG127	805	55	127V	4A
MKX1-FG220	805	55	220/230V	2A
MKX1-FG240	805	55	240V	2A
MKX1-FG380	805	55	380/400V	1A
MKX1-FG415	805	55	415/440V	1A
MKX1-FG500	805	55	500V	1A
MKX1-FG660	805	55	600V	1A

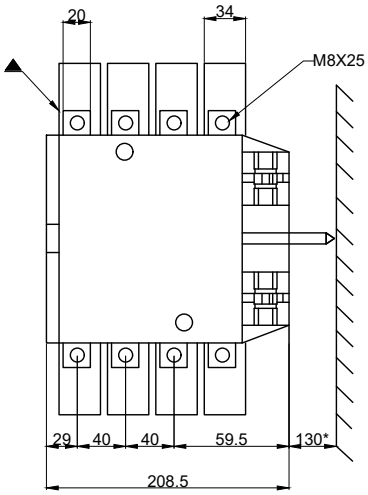
	W	W	Un	gG/gL
MKX4-FG024	737	4,13	24V	16A
MKX4-FG048			48V	8A
MKX4-FG110	●	●	110V	4A
MKX4-FG125	●	●	125V	4A
MKX4-FG220	902	5.07	200/230V	2A
MKX4-FG440			440/460V	1A

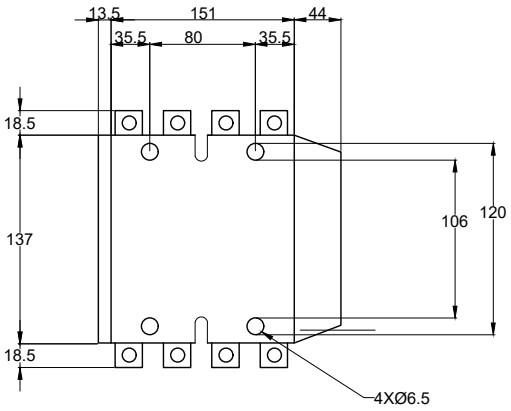
60 Hz	VA*	VA*	Un	gG/gL
MKX1-FG040	970	66	48V	10A
MKX1-FG092	970	66	110V	6A
MKX1-FG095	970	66	115/120V	6A
MKX1-FG162	970	66	220/208V	4A
MKX1-FG184	970	66	220V	4A
MKX1-FG187	970	66	230/240V	4A
MKX1-FG340	970	66	415V	2A
MKX1-FG360	970	66	440V	2A
MKX1-FG380	970	66	460/480V	2A
MKX1-FG550	970	66	660V	1A

40..400 Hz	VA*	VA*	Un	gG/gL
MKX9-FG042				16A
MKX9-FG048				10A
MKX9-FG110	950	8.9	110/115V	6A
MKX9-FG127	●	●	127V	6A
MKX9-FG220	●	●	220/230V	4A
MKX9-FG240	●	●	240V	4A
MKX9-FG380	1150	10.9	380/400V	2A
MKX9-FG415			415/440V	2A
MKX9-FG500			500V	2A

Mechanical Drawings:







Note:

1- (*) Minimum distance required for coil removal.

2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MeK-Tronics

MKC1-FDP2254A

F-Range contactor - 4P(4 NO)
315 A - AC-1
225 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	315A (at θ ≤ 40°C) at <= 440 V AC-1 225A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	48...500 V AC 40...400 Hz with MKX9FG coil 24...440 V DC with MKX4FG coil 24...550 V AC 50/60 Hz with MKX1FG coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	315A (at θ ≤ 40°C)
Irms rated making capacity	2460A conforming to IEC 60947-4-1
Rated breaking capacity	2050A at 220...415V conforming to IEC 60947-4-1 1850A at 500V conforming to IEC 60947-4-1 1350A at 660...690V conforming to IEC 60947-4-1 780A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	1800A at θ ≤ 40°C - 10 s 1000A at θ ≤ 40°C - 30 s 850A at θ ≤ 40°C - 1 min 560A at θ ≤ 40°C - 3 min 440A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	315A gG at <= 440 V
Average impedance per pole	0.36mOhm - Ith 315A 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	35W AC-1 18W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 185mm² Power circuit: connector 1 cable(s) 185mm² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	197mm
Width	208.5mm
Depth	186mm

*To be ordered separately

Coil Selection Guide:

50 Hz	VA*	VA*	Un	gG/gL
MKX1-FG024	805	55	24V	16A
MKX1-FG042	805	55	42V	8A
MKX1-FG048	805	55	48V	8A
MKX1-FG110	805	55	110/115V	4A
MKX1-FG127	805	55	127V	4A
MKX1-FG220	805	55	220/230V	2A
MKX1-FG240	805	55	240V	2A
MKX1-FG380	805	55	380/400V	1A
MKX1-FG415	805	55	415/440V	1A
MKX1-FG500	805	55	500V	1A
MKX1-FG660	805	55	600V	1A

	W	W	Un	gG/gL
MKX4-FG024	737	4,13	24V	16A
MKX4-FG048			48V	8A
MKX4-FG110	●	●	110V	4A
MKX4-FG125	●	●	125V	4A
MKX4-FG220	●	●	200/230V	2A
MKX4-FG440	902	5.07	440/460V	1A

60 Hz	VA*	VA*	Un	gG/gL
MKX1-FG040	970	66	48V	10A
MKX1-FG092	970	66	110V	6A
MKX1-FG095	970	66	115/120V	6A
MKX1-FG162	970	66	220/208V	4A
MKX1-FG184	970	66	220V	4A
MKX1-FG187	970	66	230/240V	4A
MKX1-FG340	970	66	415V	2A
MKX1-FG360	970	66	440V	2A
MKX1-FG380	970	66	460/480V	2A
MKX1-FG550	970	66	660V	1A

40..400 Hz	VA*	VA*	Un	gG/gL
MKX9-FG042				16A
MKX9-FG048				10A
MKX9-FG110	950	8.9	110/115V	6A
MKX9-FG127	●	●	127V	6A
MKX9-FG220	●	●	220/230V	4A
MKX9-FG240	●	●	240V	4A
MKX9-FG380	1150	10.9	380/400V	2A
MKX9-FG415			415/440V	2A
MKX9-FG500			500V	2A

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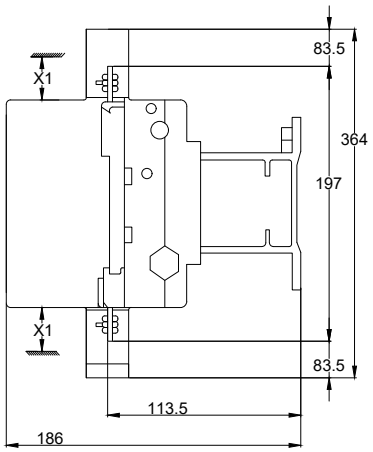
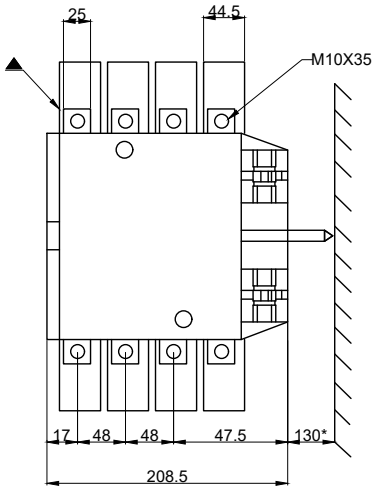
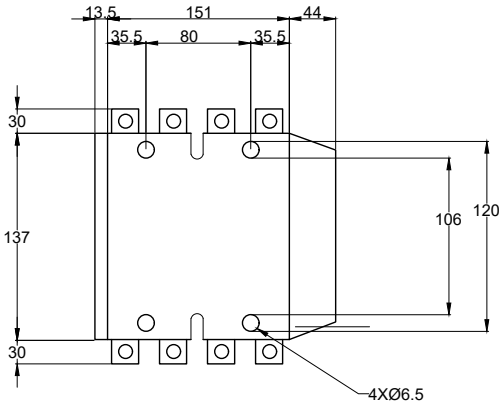
Mechanical Drawings:







Note:

1- (*) Minimum distance required for coil removal.

2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MKC1-FDP2654A
F-Range contactor - 4P(4 NO)
350 A - AC-1
265 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	350 A (at θ ≤ 40 °C) at <= 440 V AC-1 265 A (at θ ≤ 55 °C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FH coil 24...600 V AC with MKX1FH coil
[Uimp] rated impulse withstand voltage	8 kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	350 A (at θ ≤ 40 °C)
Irms rated making capacity	2940 A conforming to IEC 60947-4-1
Rated breaking capacity	2450 A at 220...415V conforming to IEC 60947-4-1 2200 A at 500V conforming to IEC 60947-4-1 1700 A at 660...690V conforming to IEC 60947-4-1 800 A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	2200 A at θ ≤ 40 °C - 10 s 1230 A at θ ≤ 40 °C - 30 s 950 A at θ ≤ 40 °C - 1 min 620 A at θ ≤ 40 °C - 3 min 480 A at θ ≤ 40 °C - 10 min
Ambient air temperature for operation	-5…55 °C
Ambient air temperature for storage	-60…80 °C
Permissible ambient air temperature around the device	-40…70 °C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	350 A gG at <= 440 V
Average impedance per pole	0.32 mOhm - Ith 350 A at 50 Hz
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Power dissipation per pole	39 W AC-1 22 W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 240 mm² Power circuit: connector 1 cable(s) 240 mm² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm² flexible without cable end
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m
Maximum operating rate	2400 cyc/h at θ ≤ 55 °C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	203 mm
Width	244.5 mm
Depth	218 mm

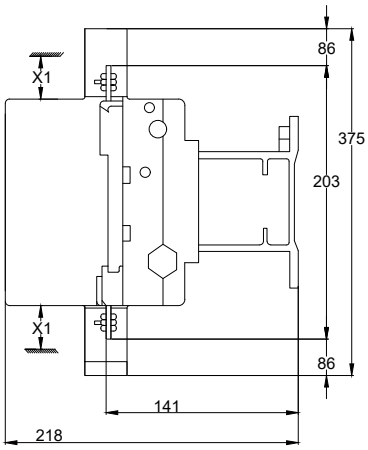
*To be ordered separately

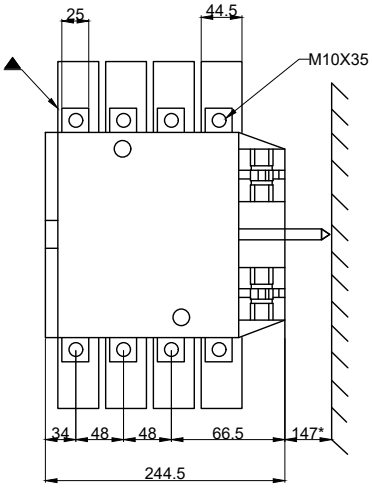
Coil Selection Guide:

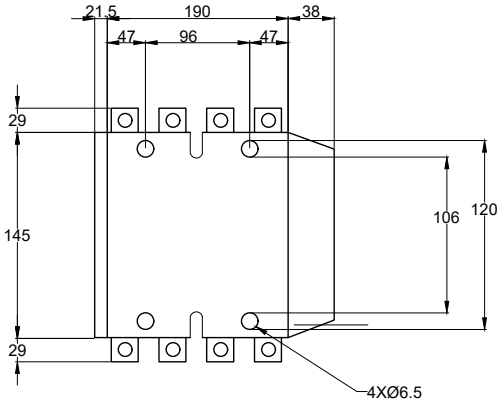
40..400 Hz	VA*	VA*	Un	gG/gL
MKX1-FH0482			48V	10A
MKX1-FH1102	600	8	110/115V	6A
MKX1-FH1275	•	•	120/127V	6A
MKX1-FH2202	•	•	220/230V	4A
MKX1-FH2402	•	•	240V	4A
MKX1-FH3802	700	10	380/415V	2A
MKX1-FH5002			480/500V	2A

⎓	W	W	Un	gG/gL
MKX4-FH024			24V	16A
MKX4-FH048	655	3.68	48V	8A
MKX4-FH110	•	•	110V	4A
MKX4-FH125	•	•	125V	4A
MKX4-FH220	803	4.53	200/230V	2A
MKX4-FH440			440/460V	1A

Mechanical Drawings:







Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MeK-Tronics

MKC1-FDP3304A
F-Range contactor - 4P(4 NO)
400 A - AC-1
330 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	400A (at θ ≤ 40°C) at <= 440 V AC-1 330A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FH coil 24...600 V AC with MKX1FH coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	400A (at θ ≤ 40°C)
Irms rated making capacity	3600A conforming to IEC 60947-4-1
Rated breaking capacity	3000A at 220...415V conforming to IEC 60947-4-1 2810A at 500V conforming to IEC 60947-4-1 2350A at 660...690V conforming to IEC 60947-4-1 1150A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	2650A at θ ≤ 40°C - 10 s 1800A at θ ≤ 40°C - 30 s 1300A at θ ≤ 40°C - 1 min 900A at θ ≤ 40°C - 3 min 750A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	400A gG at <= 440 V
Average impedance per pole	0.28mOhm - Ith 400A and 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	44W AC-1 31W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 240mm² Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	206 mm
Width	261 mm
Depth	226 mm

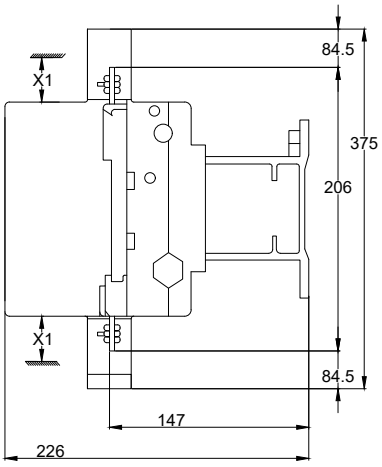
*To be ordered separately

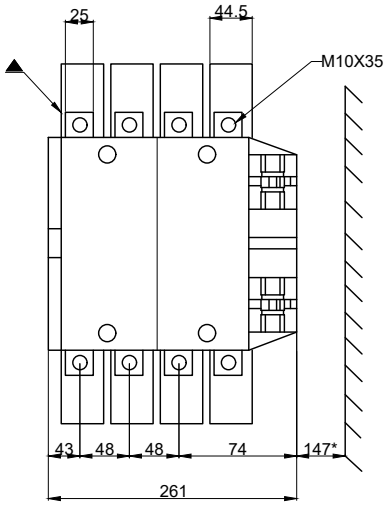
Coil Selection Guide:

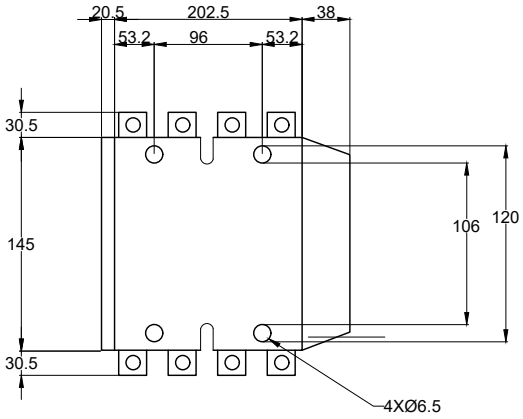
40..400 Hz	VA*	VA*	Un	gG/gL
MKX1-FH0482			48V	10A
MKX1-FH1102	600	8	110/115V	6A
MKX1-FH1275	•	•	120/127V	6A
MKX1-FH2202	•	•	220/230V	4A
MKX1-FH2402	•	•	240V	4A
MKX1-FH3802	700	10	380/415V	2A
MKX1-FH5002			480/500V	2A

	W	W	Un	gG/gL
MKX4-FH024			24V	16A
MKX4-FH048	655	3.68	48V	8A
MKX4-FH110	•	•	110V	4A
MKX4-FH125	•	•	125V	4A
MKX4-FH220	803	4.53	200/230V	2A
MKX4-FH440			440/460V	1A

Mechanical Drawings:







Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
10	15

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MeK-Tronics

MKC1-FDP4004A
F-Range contactor - 4P(4 NO)
400 A - AC-1
330 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	500 A (at θ ≤ 40 °C) at <= 440 V AC-1 400 A (at θ ≤ 55 °C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FJ coil 48...660 V AC with MKX1FJ coil
[Uimp] rated impulse withstand voltage	8 kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	500 A (at θ ≤ 40 °C)
Irms rated making capacity	4500 A conforming to IEC 60947-4-1
Rated breaking capacity	4000 A at 220...415V conforming to IEC 60947-4-1 3500 A at 500V conforming to IEC 60947-4-1 3050 A at 660...690V conforming to IEC 60947-4-1 1200 A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	3600 A at θ ≤ 40 °C - 10 s 2400 A at θ ≤ 40 °C - 30 s 1700 A at θ ≤ 40 °C - 1 min 1200 A at θ ≤ 40 °C - 3 min 1000 A at θ ≤ 40 °C - 10 min
Ambient air temperature for operation	-5…55 °C
Ambient air temperature for storage	-60…80 °C
Permissible ambient air temperature around the device	-40…70 °C
Mechanical robustness	Vibrations contactor open: 1.5 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	500 A gG at <= 440 V
Average impedance per pole	0.28 mOhm - Ith 500 A and 50 Hz
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Power dissipation per pole	70 W AC-1 45 W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 150 mm² Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm² flexible without cable end
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m
Maximum operating rate	2400 cyc/h at θ ≤ 55 °C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	206 mm
Width	261 mm
Depth	227 mm

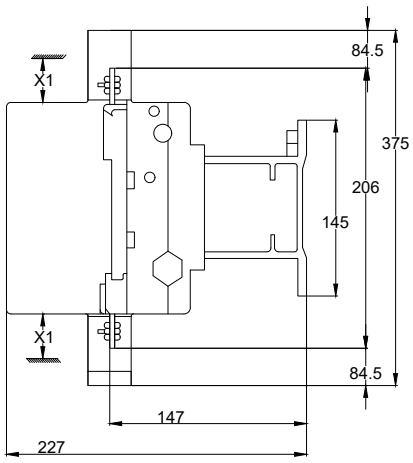
*To be ordered separately

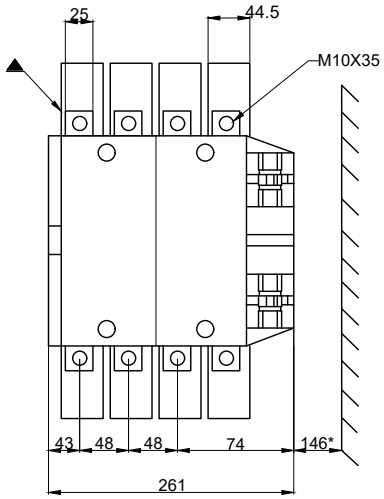
Coil Selection Guide:

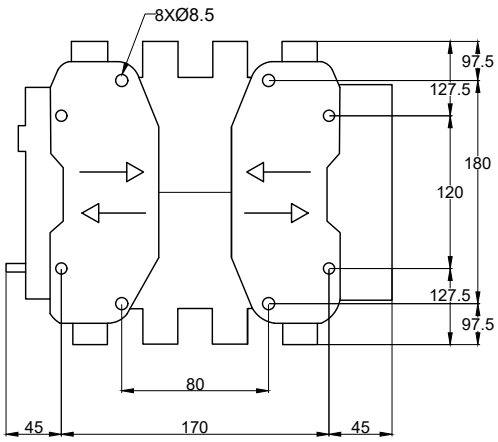
40..400 Hz	VA*	VA*	Un	gG/gL
MKX1-FJ048	1000 • • • 1150	12 • • • 18	48V	10A
MKX1-FJ110			110/120V	6A
MKX1-FJ127			127V	6A
MKX1-FJ220			220/230V	4A
MKX1-FJ240			240V	4A
MKX1-FJ380			380/400V	2A
MKX1-FJ415			415/480V	2A
MKX1-FJ500			500V	2A

⎓	W	W	Un	gG/gL
MKX4-FJ048	920 • • 1140	4 • • 7.5	48V	10A
MKX4-FJ110			110V	6A
MKX4-FJ125			125V	6A
MKX4-FJ220			220V	4A
MKX4-FJ250			250V	4A
MKX4-FJ440			440V	2A

Mechanical Drawings:







Note:

1- (*) Minimum distance required for coil removal.

2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
15	20

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MeK-Tronics

MKC1-FDP5004A
F-Range contactor - 4P(4 NO)
700 A - AC-1
500 A - AC-3

Approvals:

Technical Specifications:

Product name	MKC1-FDP
Product or component type	Contactor
Contactor application	Resistive load Motor Control
Utilization category	AC-1 AC-3
Poles description	4P
Power pole contact construction	4 NO
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz
[Ie] rated operational current	700A (at θ ≤ 40°C) at <= 440 V AC-1 500A (at θ ≤ 55°C) at <= 440 V AC-3
[Uc] control circuit voltage	24...440 V DC with MKX4FK coil 48...600 V AC with MKX1FK coil
[Uimp] rated impulse withstand voltage	8kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1
Overvoltage category	III
[Ith] conventional free air thermal current	700A (at θ ≤ 40°C)
Irms rated making capacity	5550A conforming to IEC 60947-4-1
Rated breaking capacity	5000A at 220...415V conforming to IEC 60947-4-1 4500A at 500V conforming to IEC 60947-4-1 3560A at 660...690V conforming to IEC 60947-4-1 2500A at 1000V conforming to IEC 60947-4-1
[Icw] rated short-time withstand current from cold state, no current flowing for preceding 60 minutes	4200A at θ ≤ 40°C - 10 s 3200A at θ ≤ 40°C - 30 s 2400A at θ ≤ 40°C - 1 min 1500A at θ ≤ 40°C - 3 min 1200A at θ ≤ 40°C - 10 min
Ambient air temperature for operation	-5…55°C
Ambient air temperature for storage	-60…80°C
Permissible ambient air temperature around the device	-40…70°C
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Associated fuse rating	700A gG at <= 440 V
Average impedance per pole	0.18mOhm - Ith 700A and 50 Hz
[Ui] rated insulation voltage	1000V conforming to IEC 60947-4-1
Power dissipation per pole	88W AC-1 45W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc
Mounting support	Plate
Standards	EN 60947-4-1 IEC 60947-4-1 EN 60947-1 IEC 60947-1

Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 240mm² Power circuit: bar 2 cable(s) - busbar cross section: 40 x 5 mm Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5mm² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4mm² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4mm² flexible without cable end
Tightening torque	Power circuit: 35N.m Control circuit: 1.2N.m
Maximum operating rate	2400cyc/h at θ ≤ 55°C
Mechanical Durability (in millions of operating cycles)	10
Maximum operating altitude	3000 m without derating
Operating positions	±30° possible, in relation to normal vertical mounting plane
IP degree of protection	IP 20 front face with shrouds* conforming to IEC 60529
Height	238 mm
Width	288 mm
Depth	241 mm

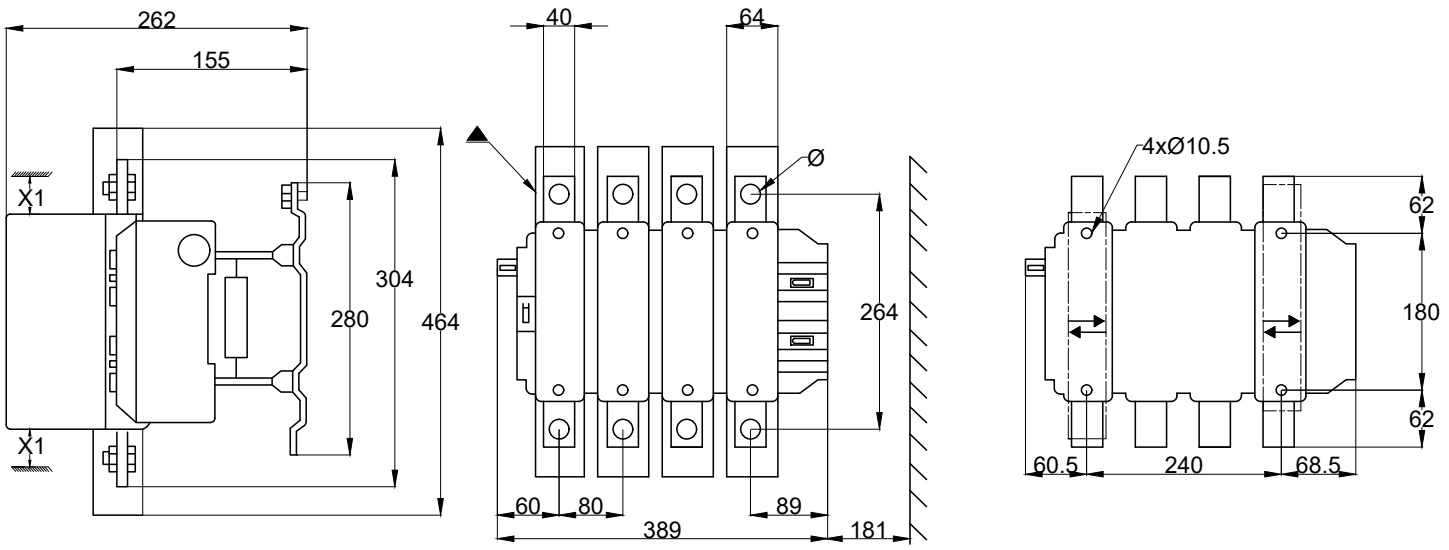
*To be ordered separately

Coil Selection Guide:

40..400Hz	VA*	VA*	Un	gG/gL
MKX1-FK048	1050 • • • • • 1150	16 • • • • • 20	48V	10A
MKX1-FK110			110/120V	6A
MKX1-FK127			127V	6A
MKX1-FK220			220/230V	4A
MKX1-FK240			240V	4A
MKX1-FK380			380/400V	2A
MKX1-FK415			415/480V	2A
MKX1-FK500			500V	2A

⎓	W	W	Un	gG/gL
MKX4-FK048	990 • • • • 1220	4.5 • • • • 8	48V	10A
MKX4-FK110			110V	6A
MKX4-FK125			125V	6A
MKX4-FK220			220V	4A
MKX4-FK250			250V	4A
MKX4-FK440			440V	2A

Mechanical Drawings:



Note:
1- (*) Minimum distance required for coil removal.
2- (▲) Power terminal protection shroud.

X1(mm)= Minimum electrical clearance according to operating voltage & breaking capacity	
200 to 500V	600 to 1000V
15	20

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