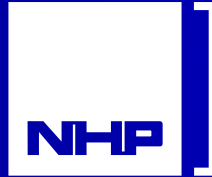


NHP ELECTRICAL ENGINEERING PRODUCTS



Allen-Bradley

MOTOR CONTROL AND PROTECTION

SMART Motor Control

Bulletin 100-E Contactors

The modern contactor
for your commercial and
industrial applications



100-E contactors

 nhpnz.co.nz

 0800 647 647

 sales@nhp-nz.com



About NHP

Since 1968, NHP has been an independently owned leader in electrical and automation products, systems and solutions.

With more than 55 years of electrical and engineering industry excellence and locations throughout the length and breadth of New Zealand, it is NHP's local people and footprint that helps us understand your specific project needs, no matter how big or small.

While we go to market with over 20,000 marketed lines, we are much more than a product supplier.

Together with our extensive network of global partners, we offer choice in product, choice in technology, choice in service, choice in support and ultimately choice in how you deal with us – whether that be in person or online, where and when you need us.

This enables NHP to customise integrated solutions and bring to life smart and secure technologies that automate production, control power and manage energy.

When it comes to finding a local partner with a global network for your next project, choosing NHP will unlock a world of expertise, knowledge and experience across electrical and automation products, systems and solutions.

The NHP difference

What makes NHP different from our competitors are these three distinct promises.



COMMUNITY

In your local community, city and industry, we understand your specific project needs.



CHOICE

Choice in product, technology, service and support, enabling you to customise and push boundaries.



GLOBAL




With a global network of suppliers, we bring the world's best products and knowledge to your doorstep.



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Contactor product line overview

Contactors			
			
Bulletin	100-K	100-C	100-E
Max current rating I _e (AC-1)	12A	97A	2650A
AC-3 current rating	5...12A	9...97A	9...1060A
Features	<ul style="list-style-type: none"> • Mini-contactors • Uniform panel mounting dimensions • Panel mounting or mounting on 35mm DIN rail • AC or DC coil control • Made of environmentally friendly materials 	<ul style="list-style-type: none"> • Panel mounting or mounting on 35mm DIN rail • AC or DC coil control • Reversible coil terminals (line or load side) • Common accessories • Made of environmentally friendly materials 	<ul style="list-style-type: none"> • Panel mounting or mounting on 35mm DIN Rail • AC/DC electronic coil with built-in surge suppression • E09...E370 <ul style="list-style-type: none"> - Optional PLC interface on E116...E370 • E400...E2650 <ul style="list-style-type: none"> - PLC interface • Made of environmentally friendly materials
Coil voltages	24...600V AC, 50/60Hz 12...250V DC	12...480V AC, 50/60Hz 9...250V DC	20...500V AC, 50/60 Hz 20...500V DC
Contacts	3 main poles with internal N/O or N/C auxiliary contact, or 4 main poles Optional front-mounted 2- or 4- pole external auxiliary contact block	3 main poles with internal N/O or N/C auxiliary contact or 4 main poles (9...23A) Optional front or side-mounted 1-, 2- or 4-pole external auxiliary contact block	3 main poles with 2 auxiliary contacts (1N/O and 1N/C) or 4 main poles Optional side or front-mounted external auxiliary contact block
Optional overload relays	Bi-metallic (193-K)	Advanced Electronic (E300), Electronic (193-E1) or bi-metallic (193-T1)	Advanced Electronic (E300) or Electronic (193-E1)
Optional accessories	<ul style="list-style-type: none"> • Front-mount auxiliary contacts • Surge suppressors • Electronic timers • Mechanical interlocks 	<ul style="list-style-type: none"> • Front or side-mount auxiliary contacts • Surge suppressors • Electronic or pneumatic timers • Mechanical interlocks • Mechanical latches 	<ul style="list-style-type: none"> • Side or front mount auxiliary contacts • Mechanical interlocks • Terminal lugs • Terminal shields • Connecting bar • Electronic timers (9...96A) • Mechanical latches (9...96A)

Contactors		
		
Bulletin	100S-C	100S-E
Max current rating I_e (AC-1)	97A	1050A
AC-3 current rating	9...97A	9...750A
Features	<ul style="list-style-type: none"> • Positively guided/mechanically linked auxiliary contacts • Front-mounted auxiliary contacts: <ul style="list-style-type: none"> - Permanently fixed - Protective cover to prevent manual operation - Red contact housing for easy identification - Incorporates IEC 947-5-1 Mechanically Linked symbol - Optional gold-plated bifurcated versions • AC and DC operating coils • SUVA third-party certification 	<ul style="list-style-type: none"> • Mirror contact performance on auxiliary contacts • Red N/C low-power auxiliary contacts used for feedback circuit • SUVA third-party certification • AC/DC operating coils with built-in surge suppression • Mirror Contact symbol on front
Coil voltages	12...480V AC, 50/60Hz 12...250V DC	24...500V AC, 50/60Hz 12...500V DC
Contacts	3 main poles with N/C mechanically linked or mirror feedback contacts	3 main poles with N/C mirror feedback contacts
Optional overload relays	Advanced Electronic (E300), Electronic (193-E1) or bi-metallic (193-T1)	Advanced Electronic (E300) or Electronic (193-E1)
Optional accessories	<ul style="list-style-type: none"> • Side-mount auxiliary contacts • Surge suppressors • Electronic timers • Mechanical interlocks 	<ul style="list-style-type: none"> • Side-mount auxiliary contacts • Terminal shields • Terminal lugs • Terminal enlargements • Terminal extensions • Connection bars for 140G molded case circuit breakers, 140MG motor protection circuit breakers and 140MG motor circuit protectors • Electronic timers (9...96A) • Mechanical interlocks (9...96A)

Bulletin 100-E contactors overview

The Bulletin 100-E contactor line combines the simple function of our popular 100-C series with the rugged performance demanded in this wide kilowatt range. 100-E contactors offer a relatively compact footprint than traditional contactors in various class sizes.

A broad selection for your motor starting applications

The 100-E range consists of contactors in ten frame sizes covering motors from 4 to 630kW at 415V AC and from 35 to 600kW at 1000V AC. This line is ideally suited for use in automated industrial processes, pump stations, material handling and demanding applications such as use in steel mills, rock quarries, mines or any application where a sturdy, durable contactor is needed.

Rugged and reliable

100-E contactors conform to IEC/EN 60947 and can be operated at rated voltages up to 1000V AC. High thermal and switching capacities guarantee reliable operation and long life.

Electronic coils offer many advantages

The entire line is equipped with an electronically controlled coil that reduces pick-up currents by 80% on average. Holding current is also reduced.

Other advantages of the 100-E contactor electronic coil include:

- Simplifies selection with electronic wide-range of AC/DC coils
- Available with integrated PLC interface (116A and above)
- Saves energy with low power consumption
- Includes built-in surge suppression
- Low power pick-up and hold-in

Safety options

The 100S-E safety contactors provide mirror contact performance up to 425kW at 415V AC, which are required in feed-back circuits for modern safety applications. The 100S-E safety contactors provide safe isolation of hazardous motion loads, using mirror contact performance. Mirror contacts provide reliable indication about the open or closed status of the main power poles.

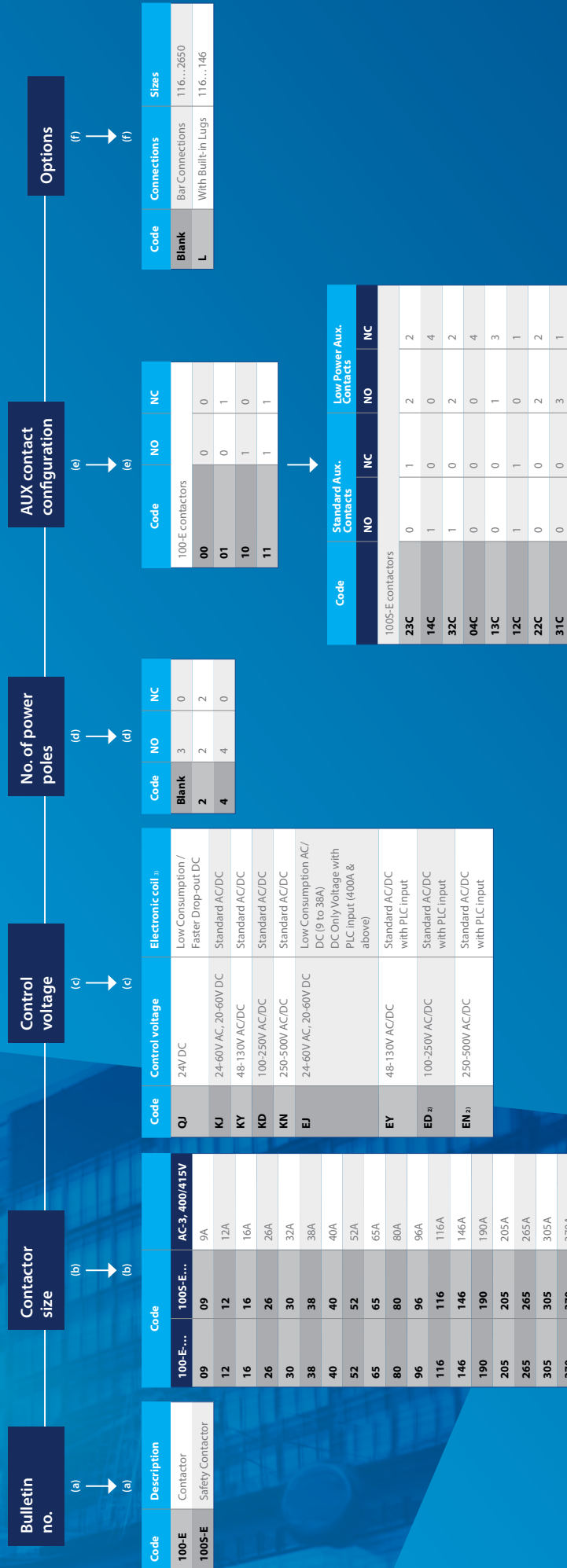
Also available: assembled motor starters

NHP is able to design and build assembled motor starters to your specification, complete with Bulletin 100-E / 100S-E contactors and associated switchgear.



Consult NHP for technical specifications

This catalogue number chart provides a general guide to creating a 100-E/100S-E catalogue number to match your application. Not all possible combinations are valid.





***Not all combinations are available.
Please contact NHP for more information.***

Note: 1) AC-1 only
2) PLC/24V DC logic control signals required for contactors from 116A to 370A. Contactors above 400A and above include switch for PLC/no PLC use
3) AC voltages are at 50/60 Hz

Bulletin 100-E contactors product selection

Three pole contactors with AC/DC coil



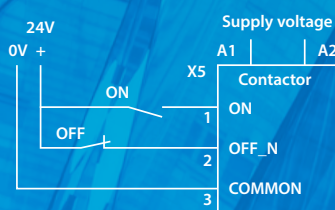
Rated operational current I _e (A)		Ratings for switching AC motors (AC-3)				Auxiliary contacts per contactor		Contactor catalogue no. 3)
60° C	40° C	kW (50Hz)						
AC-3 (400-415V)	AC-1 (690V)	380-400V	415V	690V	1000V	N/O	N/C	
9	25	4	4	5.5	-	1	0	100-E09□10
9	25	4	4	5.5	-	0	1	100-E09□01
12	28	5.5	5.5	7.5	-	1	0	100-E12□10
12	28	5.5	5.5	7.5	-	0	1	100-E12□01
16	30	7.5	9	9	-	1	0	100-E16□10
16	30	7.5	9	9	-	0	1	100-E16□01
26	45	11	11	15	-	0	0	100-E26□00
32	50	15	15	18.5	-	0	0	100-E30□00
38	50	18.5	18.5	22	-	0	0	100-E38□00
40	70	18.5	22	22	-	0	0	100-E40□00
65	105	30	37	37	-	0	0	100-E65□00
80	125	37	45	45	35	0	0	100-E80□00
96	130	45	55	55	40	0	0	100-E96□00
116	160	55	55	55	55	1	1	100-E116□11 1)
146	225	75	75	90	75	1	1	100-E146□11 1)
190	275	90	90	132	110	1	1	100-E190□11
305	500	160	160	250	132	1	1	100-E305□11
400	600	200	220	315	220	1	1	100-E400□11

Coil voltage codes The catalogue. no. as listed above is incomplete.
Replace the □ symbol with the required control voltage code from the table below.

Contactor	V ₂	Coil codes		
		24-60V AC, 20-60V DC	100-250V AC/DC	250-500V AC/DC
100-E09□10	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E09□01	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	- -
100-E12□10	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E12□01	Standard AC/DC Low consumption AC/DC	- EJ	KD -	KN -
100-E16□10	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E16□01	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E26□00	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E30□00	Standard AC/DC Low consumption AC/DC	KJ EJ	KD -	KN -
100-E38□00	Standard AC/DC Low consumption AC/DC	- EJ	KD -	KN -
100-E40□00	Standard AC/DC	-	KD	KN
100-E65□00	Standard AC/DC	KJ	KD	KN
100-E80□00	Standard AC/DC	-	KD	-
100-E96□00	Standard AC/DC	-	KD	-
100-E116□11	Standard AC/DC	-	KD	-
100-E146□11	Standard AC/DC	-	KD	-
100-E190□11	Standard AC/DC	-	KD	-
100-E305□11	Standard AC/DC	-	KD	-
100-E400□11	Standard AC/DC with PLC input	-	ED	-

Note: 1) To order with built-in terminal lugs, add the letter "L" to the end of the catalogue number (e.g. 100-E116U11L)
2) AC voltages are at 50/60 Hz
3) More contactor sizes and coil combinations are available, contact NHP for more info




PLC interface.



Bulletin 100S-E safety contactors product selection

Three pole contactors with AC/DC coil

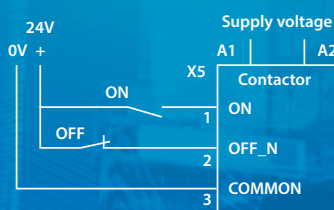


Rated operational current I _e (A)		Ratings for switching AC motors (AC-3)				Auxiliary contacts per contactor			Contactor catalogue no. ⁵⁾
60° C	40° C	kW (50Hz)							
AC-3 (400-415V)	AC-1 (690V)	380-400V	415V	690V	1000V	N/O	N/C	N/C ¹⁾	
9	25	4	4	5.5	-	1	0	4	100-SE09□14C
9	25	4	4	5.5	-	3	0	2	100-SE09□32C
12	28	5.5	5.5	7.5	-	1	0	4	100-SE12□14C
16	30	7.5	9	9	-	1	0	4	100-SE16□14C
26	45	11	11	15	-	1	0	3	100-SE26□13C
26	45	11	11	15	-	2	0	2	100-SE26□22C
32	50	15	15	18.5	-	1	0	3	100-SE30□13C
38	50	18.5	18.5	22	-	1	0	3	100-SE38□13C
65	105	30	37	37	-	2	0	2	100-SE65□22C
116	160	55	55	55	55	1	1	1	100-SE116□12C ²⁾
146	225	75	75	90	75	1	1	1	100-SE146□12C ²⁾
190	275	90	90	132	110	1	1	1	100-SE190□12C
265	400	132	132	200	132	1	1	1	100-SE265□12C
305	500	160	160	250	132	1	1	1	100-SE305□12C
400	600	200	220	315	220	1	1	1	100-SE400□12C

Coil voltage codes The catalogue. no. as listed above is incomplete. Replace the □ symbol with the required control voltage code from the table below.

Safety contactors	V _{A)}	Coil codes		
		24-60V AC, 20-60V DC	100-250V AC/DC	250-500V AC/DC
100-SE09□14C	Standard AC/DC	KJ	KD	-
100-SE09□32C	Standard AC/DC	KJ	-	-
100-SE12□14C	Standard AC/DC	KJ	-	-
100-SE16□14C	Standard AC/DC	KJ	-	-
100-SE26□13C	Standard AC/DC	KJ	-	-
100-SE26□22C	Standard AC/DC	KJ	-	-
100-SE30□13C	Standard AC/DC	KJ	-	-
100-SE38□13C	Standard AC/DC	KJ	-	-
100-SE65□22C	Standard AC/DC	KJ	-	-
100-SE116□12C ³⁾	Standard AC/DC	KJ	-	-
100-SE116□12C ³⁾	Standard AC/DC with PLC input	-	ED	EN
100-SE146□12C ³⁾	Standard AC/DC	-	KD	-
100-SE146□12C ³⁾	Standard AC/DC with PLC input	-	ED	-
100-SE190□12C ³⁾	Standard AC/DC	-	KD	-
100-SE190□12C ³⁾	Standard AC/DC with PLC input	-	ED	-
100-SE265□12C ³⁾	Standard AC/DC	-	KD	-
100-SE265□12C ³⁾	Standard AC/DC with PLC input	-	ED	-
100-SE305□12C	Standard AC/DC	-	KD	-
100-SE400□12C	Standard AC/DC with PLC input	-	ED	-

PLC interface.



Note: 1) This N/C contact meets IEC 600947-4-1 Annex F requirements for mirror contact performance.
 2) To order with built-in terminal lugs, add the letter "L" to the end of the catalogue number (e.g., 100S-E116□12CL).
 3) When ordering coil with PLC input, the PLC input must be used.
 4) AC voltages are at 50/60 Hz.
 5) More contactor sizes and coil combinations are available, contact NHP for more info.

Overloads for use with 100-E contactors

	Contactor model	Current range [A]	Catalogue number
E100 overload Basic ¹	100-E09...E16	0.1-0.5	193-1EEAF
		0.2-1.0	193-1EEBF
		1.0-5.0	193-1EECF
		3.2-16	193-1EEDF
		5.4-27	193-1EEEF
	100-E26...E38	1.0-5.0	193-1EECG
		5.4-27	193-1EEEG
		11-55	193-1EEFG
	100-E40...E65	13.2-66	193-1EEQH
100-E80...E96	20-100	193-1EEGJ	
E100 overload Advanced ²	100-E09...E16	0.1-0.5	193-1EF AF
		0.2-1.0	193-1EF BF
		1.0-5.0	193-1EF CF
		3.2-16	193-1EF DF
		5.4-27	193-1EF EF
	100-E26...E38	1.0-5.0	193-1EF CG
		5.4-27	193-1EF EG
		11-55	193-1EF FG
	100-E40...E65	13.2-66	193-1EF QH
	100-E80...E96	20-100	193-1EF GJ



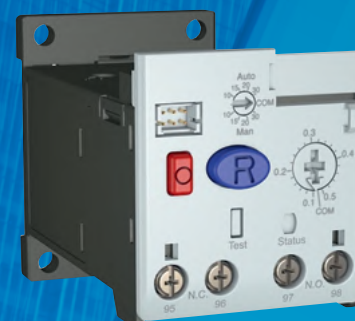
100E contactor & E100 overload

Overloads for use with 100-C contactors

	Contactor model	Current range [A]	Catalogue number
E100 overload Basic ¹	100-C09...C23	0.2-1.0	193-1EEBB
		1.0-5.0	193-1EECB
		3.2-16	193-1EEDB
		5.4-27	193-1EEEB
	100-C30...C55	11-55	193-1EEFD
	100-C60...C97	20-100	193-1EEGE
E100 overload Advanced ²	100-C09...C23	0.2-1.0	193-1EFBB
		1.0-5.0	193-1EFCB
		3.2-16	193-1EFDB
		5.4-27	193-1EFEB
	100-C30...C55	11-55	193-1EFFD
	100-C60...C97	20-100	193-1EEGF

Overload relays (pass-thru models)

	For use with	Current range [A]	Catalogue number
Basic ³	All contactors	1-5	193-1EECP
	All contactors	3.2-16	193-1EEDP
	All contactors	5.4-27	193-1EEEP
	All contactors	11-55	193-1EEFP
	All contactors	20-100	193-1EEGP
Advanced ⁴	All contactors	1-5	193-1EFCP
	All contactors	3.2-16	193-1EFDP
	All contactors	5.4-27	193-1EFEP
	All contactors	11-55	193-1EFFP
	All contactors	20-100	193-1EFGP



E100 overload relay, pass-through type




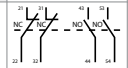
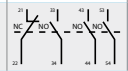
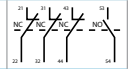


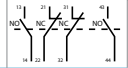




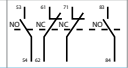
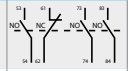


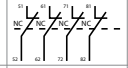


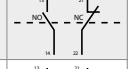


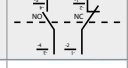



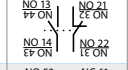
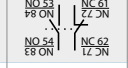
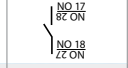
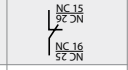

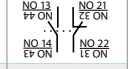
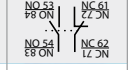

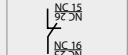
Notes

- Notes**
- 1 Trip class 10, 20; manual reset only. Rated operating voltage 690V AC.
 - 2 Trip class 10, 15, 20, 30; manual or automatic reset. Rated operating voltage 690V AC.
 - 3 Trip class 10, 20; manual reset only. Rated operating voltage 1000V AC.
 - 4 Trip class 10, 15, 20, 30; manual or automatic reset. Rated operating voltage 1000V AC.



Accessories


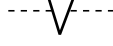



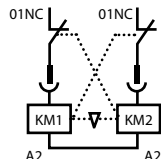
Auxiliary contact blocks 1)

Accessories	Description	N/O	N/C	Connection diagrams	For use with	Catalogue no.
	Auxiliary contact blocks for front mounting <ul style="list-style-type: none">• 1-pole• Quick and easy mounting without tools• Screw connection terminals• Switching down to 12V, 3mA• Mirror contact performance to the main contactor poles	1	0		100-E09... 100-E96	100-EFA10
		0	1			100-EFA01
	Auxiliary contact blocks for front mounting <ul style="list-style-type: none">• 4-pole• Quick and easy mounting without tools• Screw connection terminals• Switching down to 12V 3mA• Mirror contact performance to the main contactor poles	2	2		100-E09...10... 100-E16...10	100-EFC22
		3	1			100-EFC31
		1	3			100-EFC13
		0	4			100-EFC04
	Auxiliary contact blocks for front mounting <ul style="list-style-type: none">• 4-pole• Quick and easy mounting without tools• Screw connection terminals• Switching down to 12V 3mA• Mirror contact performance to the main contactor poles	2	2		100-E26...00... 100-E96...00 100-E09...400... 100-E80...400 100-E09...200... 100-E80...200	100-EFB22
		3	1			100-EFB31
		4	0			100-EFB40
		0	4			100-EFB04
	Auxiliary contact blocks for front mounting <ul style="list-style-type: none">• 4-pole• Quick and easy mounting without tools• Screw connection terminals• Switching down to 12V 3mA• Mirror contact performance to the main contactor poles	2	2		100-E09...100-E96	100-EFA22
		3	1			100-EFA31
		4	0			100-EFA40
		1	3			100-EFA13
		0	4			100-EFA04
	Auxiliary contact blocks for front mounting with A1/A2 coil terminal blocks <ul style="list-style-type: none">• 2-pole• Quick and easy mounting without tools• Screw connection terminals• Switching down to 12V, 3mA• Mirror contact performance to the main contactor poles	1	1		100-E09...10... 100-E16...10	100-EFC11T
		1	1		100-E26...00...100-E65...00 100-E09...400...100-E52...400 100-E09...200...100-E40...200	100-EFB11T
	Auxiliary contact blocks for side mounting <ul style="list-style-type: none">• 2-pole• Two-way numbering for right/ left mounting on contactor• With or without sequence terminal designations• Quick and easy mounting without tools• Screw connecting terminals• Switching down to 12V, 3mA• Mirror contact performance to the main contactor poles	1	1		100-E26...100-E96	100-ESB11
		1	1		100-E09...100-E96	100-ESA11
	Auxiliary contact blocks for front mounting for low-power applications <ul style="list-style-type: none">• 1-pole• Ingress Protection: – B3 with built-in microswitch, IP67 degree of protection (IP20 terminals)• Voltage and current ratings – B3: 125V, 0.1 A max., 3V, 1 mA min.	1	0		100-E09...100-E96	100-ESA10B3
	Auxiliary contact blocks <ul style="list-style-type: none">• 2-pole• Two-way numbering for right or left mounting on the contactor• Quick and easy mounting without tools• Mirror contact performance to the main contactor poles• Low power switching down to 24V 50 mA	1	1		100-E116...E370, left or right inside mounting	100-ES1-11
		1	1		100-E116...E370, left or right outside mounting	100-ES2-11
	Low power auxiliary contact blocks 2) <ul style="list-style-type: none">• 1-pole• Two-way numbering for right or left mounting on the contactor• Quick and easy mounting without tools• Mirror contact performance to the main contactor poles• Electronic compatible, 3V 1 mA	1	0		100-E116...E370, left or right inside or outside mounting	100-ES1-B10
		0	1		100-E116...E370, left or right inside or outside mounting	100-ES1-B01
	Auxiliary contact blocks <ul style="list-style-type: none">• 2-pole• Two-way numbering for right or left mounting on the contactor• Quick and easy mounting without tools• Mirror contact performance to the main contactor poles• Low power switching down to 24V 50 mA	1	1		100-E400...E2650, left or right outside mounting	100-ES3-11
		1	1		100-E400...E2650, left or right outside mounting	100-ES4-11
	Low power auxiliary contact blocks 2) <ul style="list-style-type: none">• 1-pole• Two-way numbering for right or left mounting on the contactor• Quick and easy mounting without tools• Mirror contact performance to the main contactor poles• Electronic compatible, 3V 1 mA	1	0		100-E400...E2650, left or right inside or outside mounting	100-ES3-B10
		0	1		100-E400...E2650, left or right inside or outside mounting	100-ES3-B01

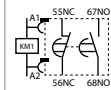
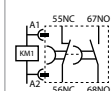
Note: 1) Up to four auxiliary contact blocks (8 poles) may be mounted on the side of the 100-E contactor. One auxiliary contact block (1 N/O and 1 N/C) is mounted at the factory (inside left position)
 2) No auxiliary contacts blocks can be mounted on the outside of the 100-ES1-B* or 100-ES3-B*.

Accessories



Mechanical interlocks

Accessories	Description	Connection diagrams	For use with	Catalogue no.
	Mechanical interlock <ul style="list-style-type: none"> For interlocking of two contactors Two fixing clips included Mechanical only, without auxiliary contacts 		100-E09...100-E38 (3 pole), 100-E09...400... 100-E38...400	100-EMCA00A
			100-E40...100-E96 (3 pole), 100-E40...400... 100-E80...400	100-EMCA00B
	Mechanical interlock <ul style="list-style-type: none"> For interlocking of two contactors. Interlocking of different sizes possible Mechanical only, without auxiliary contacts 		100-E116...100-E146	100-EM1-00
			100-E190...100-E205	
			100-E265...100-E370	
			100-E116...100-E146 to 100-E190...100-E205	100-EM4-00
			100-E190...100-E205 to 100-E265...100-E370	100-EM5-00
			100-E400...100-E750, 100-E1260 1)	100-EM2-00
			100-E860...100-E1060, 100-E2050...100-E2650 2)	100-EM3-00
	Mechanical and electrical interlock <ul style="list-style-type: none"> For interlocking of two contactors Two fixing clips, a mechanical interlock and an electrical interlock block with A2- A2 connection included Front-face connection of the electrical interlock block connects the 2 built-in N.C. interlocking contacts with the two coils The electrical diagram is used with the A2-A2 connection 		100-E09...100-E38 (3 pole), 100-E09...400... 100-E38...400	100-EMCA02 4)



Electronic timers

Accessories	Description		N/O	N/C	Connection diagrams	For use with	Catalogue no.
	Electronic timing module—ON-Delay <ul style="list-style-type: none">• Delay of the contactor coil• The contactor is energized at the end of the delay time• ON-Delay	ON-Delay 0.1...1 s 1...10 s 10...100 s	1	1		100-E09...100-E96, 24...240V AC/DC	100-ETA
	Electronic timing module—OFF-Delay <ul style="list-style-type: none">• Delay of the contactor coil• After interruption of the control signal, the contactor is de-energized at the end of the delay time	OFF-Delay 0.1...1 s 1...10 s 10...100 s	1	1		100-E09...100-E96, 24...240V AC/DC	100-ETB


Mechanical latches

Accessories	Description	Rated voltage (V) VAC 50/60 Hz VDC	Connection diagram	For use with	Catalogue no.
	Mechanical latch <ul style="list-style-type: none"> Ensures contactor or contactor relay is switched on even if there is a voltage failure Opening controlled either electrically by AC or DC impulse or manually by button Front mounting 	24...60 24...60 48...130 48...130 100...250 100...250 250...500 250...500		100-E09...100-E65	100-EFL11KJ 100-EFL11KY 100-EFL11KD 100-EFL11KN
		24...60 24...60 48...130 48...130 100...250 100...250 250...500 250...500		100-E80, 100-E96	100-EFL12KJ 100-EFL12KY 100-EFL12KD 100-EFL12KN

Terminal lugs

Lug	Description	Wire sizes	For use with	Catalogue no.
	Terminal lug kit <ul style="list-style-type: none"> Standard on 100-E116*L...100-E146*L contactors Set of two 	2x 16mm ² to 150mm ²	100-E116...100-E146	100-ECL146
	Terminal lugs <ul style="list-style-type: none"> Set of three 	2x 16mm ² to 150mm ²	100-E190...100-E205	100-ETL205
		2x 16mm ² to 185mm ²	100-E265...100-E370	100-ETL370
		2x 16mm ² to 240mm ²	100-E265...100-E370	100-ETL370B
		3x 16mm ² to 240mm ²	100-E400...100-E460	100-ETL580
		2x 16mm ² to 240mm ²	100-E580...E750, 100-E1260	100-ETL750
		4x 16mm ² to 150mm ²	100-E860	100-ETL860
		2x 16mm ² to 300mm ²	100-E1060	100-ETL1060
		6x 16mm ² to 300mm ²	100-E1060	100-ETL1060B






Terminal shrouds

Lug	Description	Wires with compression lugs	Contactor with terminal lugs	For use with	Catalogue no.
	Terminal shroud <ul style="list-style-type: none"> Not applicable when using 105-PW* or 170-PW* power wiring kits 	X		100-E116...100-E146	100-ETS146L
			X	100-E190...100-E205	100-ETS205L
		X		100-E190...100-E205	100-ETS205C
			X	100-E265...100-E370	100-ETS370L 3)
		X		100-E265...100-E370	100-ETS370C
			X	100-E400...100-E460	100-ETS460L
		X		100-E400...100-E460	100-ETS460C
			X	100-E580...100-E750	100-ETS750L
		X		100-E580...100-E750, 100-E1260	100-ETS750C

Note: 1) Mounting plate ordered separately
 2) Mounting plate included
 3) Not applicable when using the 100-ETL370B lug kit
 4) Not for use with contactors that have EQ or QJ coils.

Accessories




Power wiring connection kits

Connection kit	Description		For use with	Catalogue no.
	Reversing power wiring kits <ul style="list-style-type: none">• Used to connect the main poles of two 3-pole contactors mounted side by side• 1 line-side paralleling and 1 load-side reversing connection• Insulated, solid copper bars		100-E09...100-E116	105-PW16
			100-E26...100-E38	105-PW38
			100-E40...100-E65	105-PW65
			100-E80, 100-E96	105-PW96
	Reversing power wiring kits		100-E116...100-E146	105-PW146
			100-E190...100-E205	105-PW205 1)
			100-E265...100-E370	105-PW370 1)
			100-E400...100-E460	105-PW460 2)
			100-E580...100-E750	105-PW750 2)
Connection kit	Description	Delta contactor	Star contactor	Catalogue no.
	Wye-delta power wiring kits <ul style="list-style-type: none">• Used to connect the main poles of the Line, Delta and Star contactors of a star-delta starter.• Connection sets are made up of:<ul style="list-style-type: none">– Line contactor / delta contactor, line-side phase-to-phase connection– Delta contactor / star contactor, load-side connection in parallel– Star contactor: star point line-side– Insulated, solid copper bars	100-E09...100-E16	100-E09...100-E16	170-PW16
		100-E26...100-E38	100-E26...100-E38	170-PW38
		100-E40...100-E65	100-E40...100-E65	170-PW65
		100-E80, 100-E96	100-E40, 100-E65	170-PW96
	Star delta power wiring kits	100-E116...100-E146	100-E116...100-E146	170-PW146
		100-E190...100-E205	100-E116...100-E146	170-PW190
		100-E190...100-E205	100-E190...100-E205	170-PW205
		100-E265...100-E370	100-E190...100-E205	170-PW265
		100-E265...100-E370	100-E265...100-E370	170-PW370
		100-E400...100-E460	100-E400...100-E460	170-PW460
		100-E580...100-E750	100-E400...100-E460	170-PW580
		100-E580...100-E750	100-E580...100-E750	170-PW750
	Shorting links		100-E116...100-E146	170-PWY146
			100-E190...100-E205	170-PWY205
			100-E265...100-E370	170-PWY370
			100-E400...100-E460	170-PWY460
			100-E580...100-E750	170-PWY750

Note: 1) Kits includes one set of terminal extensions. If 100-ETL* terminal lugs are to be used on the line and load side of a reversing contactor, and second set of 100-ETX terminal extensions is required.
 2) If 100-ETL* terminal lugs are to be used on the line and load side of a reversing contactor, two sets of 100-ETX terminal extensions are also required.


Accessories

Mechanical interlocks

Accessory	Description	For use with circuit breaker	For use with contactor	Catalogue no.
	For connection to 140G or 140MG <ul style="list-style-type: none"> • Connection between contactors/starters and molded case circuit breakers. • These connection sets are solid copper bars. 	140G-H, 140MG-H	100-E116...100-E146	100-PCE1
		140G-I, 140MG-I	100-E116...100-E146	100-PCE2
		140G-J, 140MG-J	100-E116...100-E146	100-PCE3
		140G-J, 140MG-J	100-E190...100-E205	100-PCE4
		140G-K, 140MG-K	100-E265...100-E370	100-PCE5
		140G-M, 140MG-M	100-E400...100-E750	100-PCE6
		140G-K, 140MG-K	100-E400...100-E750	100-PCE7
	Terminal enlargements <ul style="list-style-type: none"> • Enlargement pieces designed to increase the width of the contactor terminal pads in order to allow larger connections to be mounted. 		100-E116...100-E146	100-ETE146
			100-E190...100-E205	100-ETE205
			100-E265...100-E370	100-ETE370
			100-E400...100-E460	100-ETE460
			100-E580...100-E750	100-ETE750
			100-E1260	100-ETE1260
	Terminal extensions <ul style="list-style-type: none"> • Extension pieces designed to extend the main terminals of contactors for combined mounting of contactors and connection sets 		100-E116...100-E146	100-ETX146
			100-E190...100-E205	100-ETX205
			100-E265...100-E370	100-ETX370
			100-E400...100-E460	100-ETX460
			100-E580...100-E750	100-ETX750

Renewel parts

Coil modules

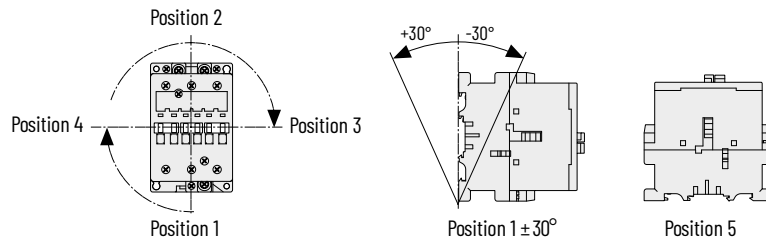
Electronic coil	Description	For use with	Voltage	Catalogue no.
	Coil modules	100-E116	24...60V AC/DC	TG913
			48...130V AC/DC	TG914
			100...250V AC/DC	TG915
			250...500V AC/DC	TG916
			100...250V AC/DC w/ PLC interface	TGE913
			250...500V AC/DC w/ PLC interface	TGE914
		100-E146	24...60V AC/DC	TG901
			48...130V AC/DC	TG902
			100...250V AC/DC	TG903
			250...500V AC/DC	TG904
			100...250V AC/DC w/ PLC interface	TGE903
			250...500V AC/DC w/ PLC interface	TGE904
		100-E190, 100-E205	24...60V AC/DC	TG905
			48...130V AC/DC	TG906
			100...250V AC/DC	TG907
			250...500V AC/DC	TG908
		100-E190	100...250V AC/DC w/ PLC interface	TGE915
			250...500V AC/DC w/ PLC interface	TGE916
		100-E205	100...250V AC/DC w/ PLC interface	TGE907
			250...500V AC/DC w/ PLC interface	TGE908
		100-E265, 100-E305, 100-E370	24...60V AC/DC	TG909
			48...130V AC/DC	TG910
			100...250V AC/DC	TG911
			250...500V AC/DC	TG912
		100-E265	100...250V AC/DC w/ PLC interface	TGE917
			250...500V AC/DC w/ PLC interface	TGE918
		100-E305	100...250V AC/DC w/ PLC interface	TGE919
			250...500V AC/DC w/ PLC interface	TGE920
		100-E370	100...250V AC/DC w/ PLC interface	TGE911
			250...500V AC/DC w/ PLC interface	TGE912
		100-E400, 100-E460	24...60V DC w/PLC interface	THE901
			48...130V AC/DC w/PLC interface	THE902
			100...250V AC/DC w/PLC interface	THE903
			250...500V AC/DC w/PLC interface	THE904
		100-E580, 100-E750, 100-E1260	24...60V DC w/PLC interface	TJE901
			48...130V AC/DC w/PLC interface	TJE902
			100...250V AC/DC w/PLC interface	TJE903
			250...500V AC/DC w/PLC interface	TJE904
		100-E860, 100-E1060, 100-E2050	100...250V AC/DC w/PLC interface	TKE903 1)
				TKE904 2)
		100-E2650		TLE903 1)
				TLE904 2)

Note: 1) One set of two coils
2) Printed circuit board

Approximate dimensions

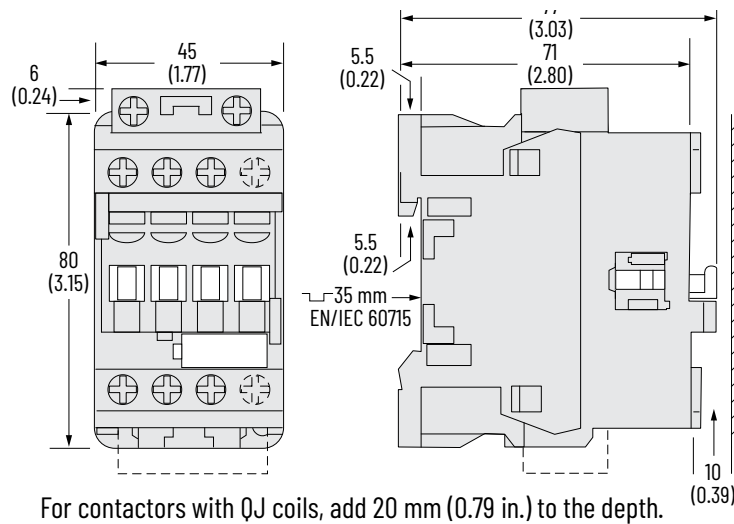
Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

Mounting Position for 100-E09...100-E96 devices— AC/DC and AC/DC with PLC input

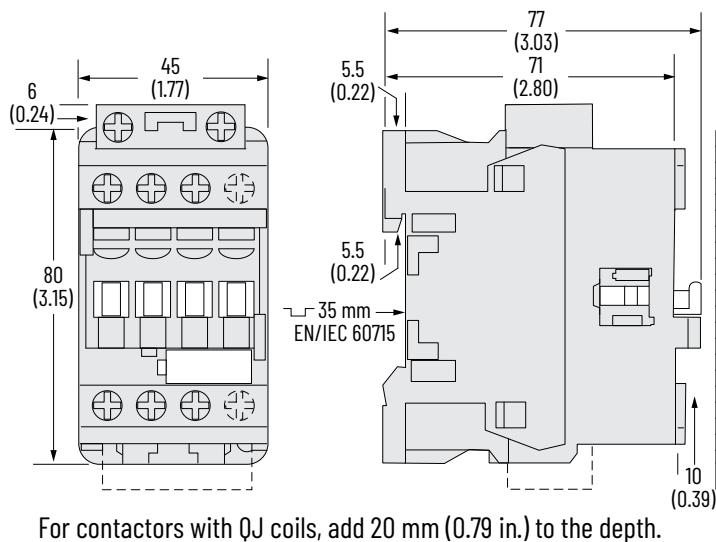


9...16 A Contactors

100-E09...100-E16 contactors with standard coils



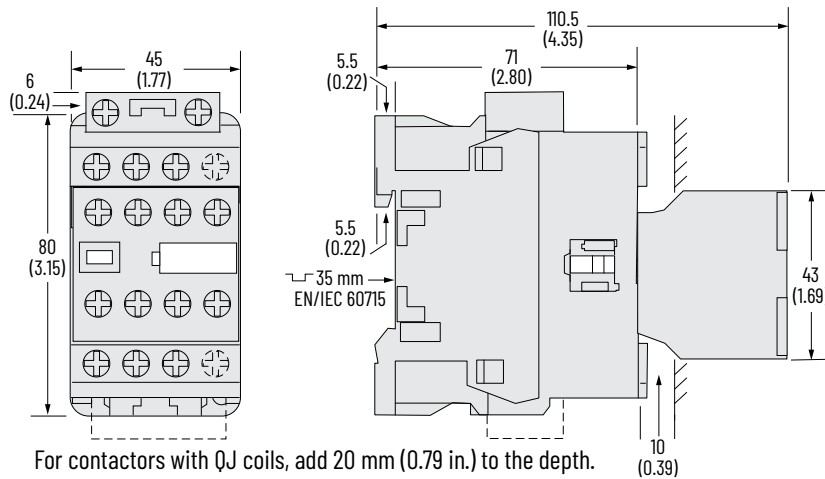
100-E09...100-E16 contactors with low-consumption coils



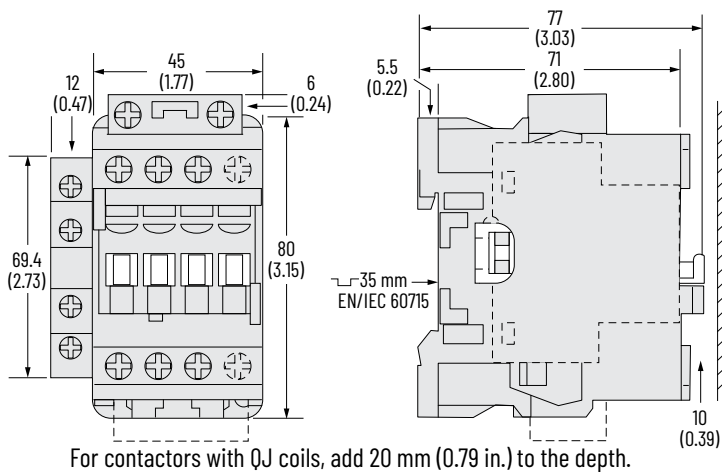
Approximate dimensions

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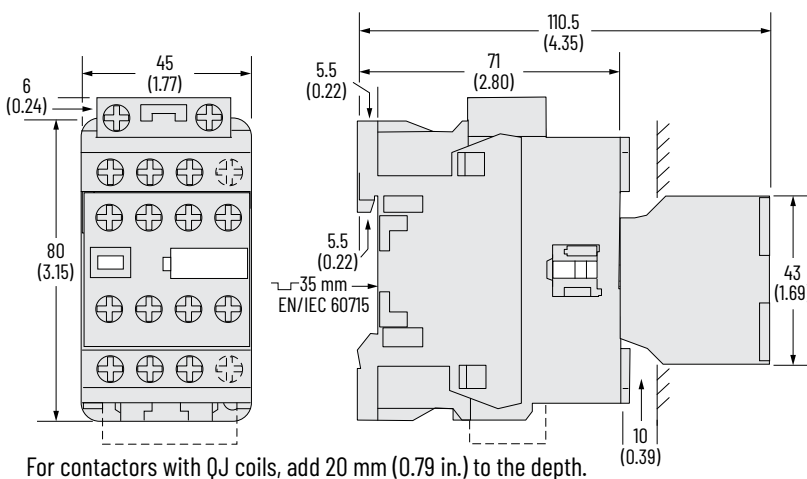
100-E09...100-E16 contactors with standard coils and front-mounted auxiliary contact



100-E09...100-E16 contactors with standard coils and side-mounted auxiliary contact



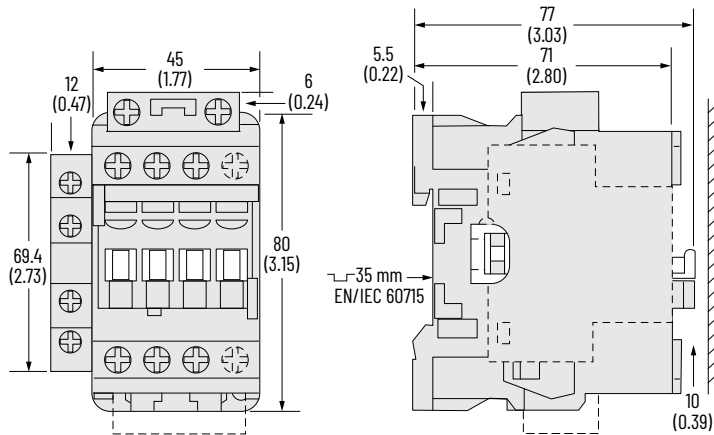
100-E09...100-E16 contactors with low-consumption coils and front-mounted auxiliary contact



Approximate dimensions

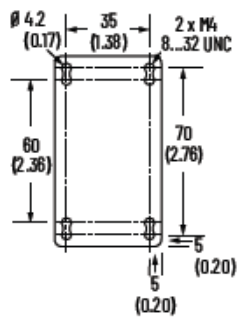
Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

100-E09...100-E16 contactors with low-consumption coils and side-mounted auxiliary contact



For contactors with QJ coils, add 20 mm (0.79 in.) to the depth.

Drilling template for 9...16 A contactors

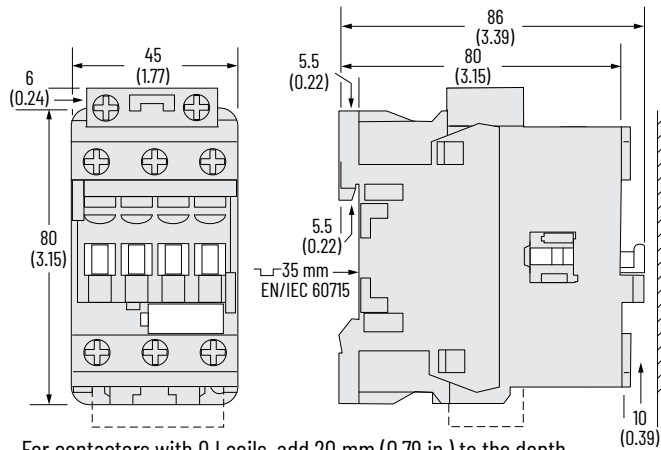


Non reversing contactors

Approximate dimensions

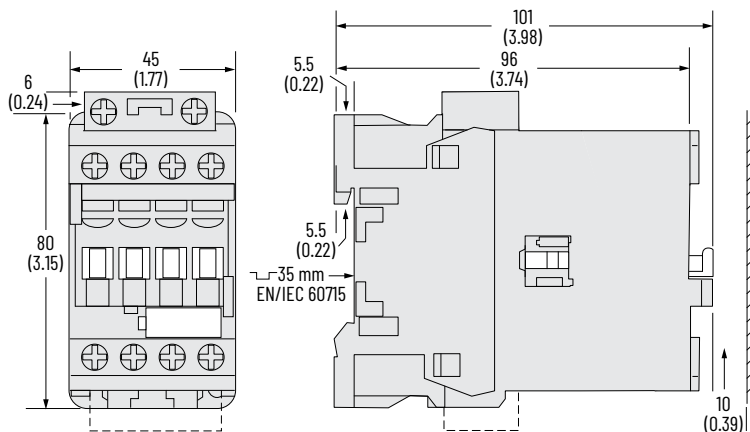
Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

100-E26...100-E38 3-pole contactors with standard coils



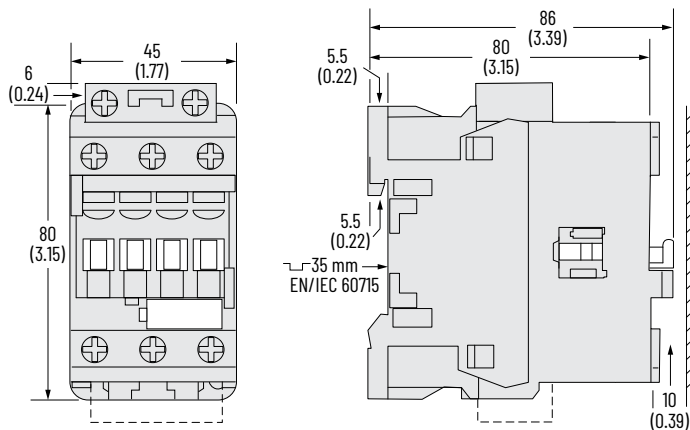
For contactors with QJ coils, add 20 mm (0.79 in.) to the depth.

100-E26...100-E38 4-pole contactors with standard coils



For contactors with QJ coils, add 20 mm (0.79 in.) to the depth.

100-E26...100-E38 3-pole contactors with low-consumption coils

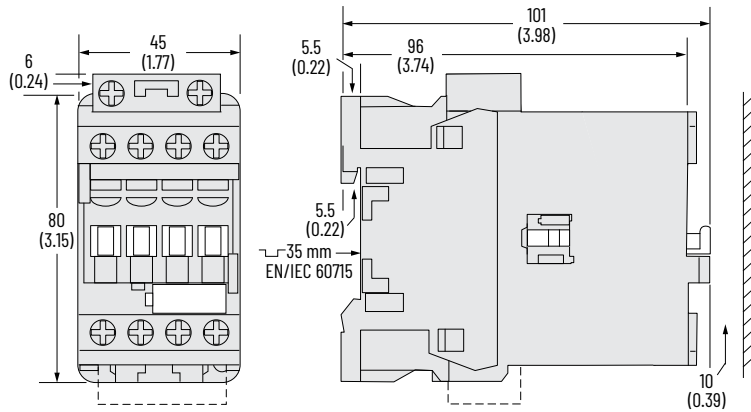


For contactors with QJ coils, add 20 mm (0.79 in.) to the depth.

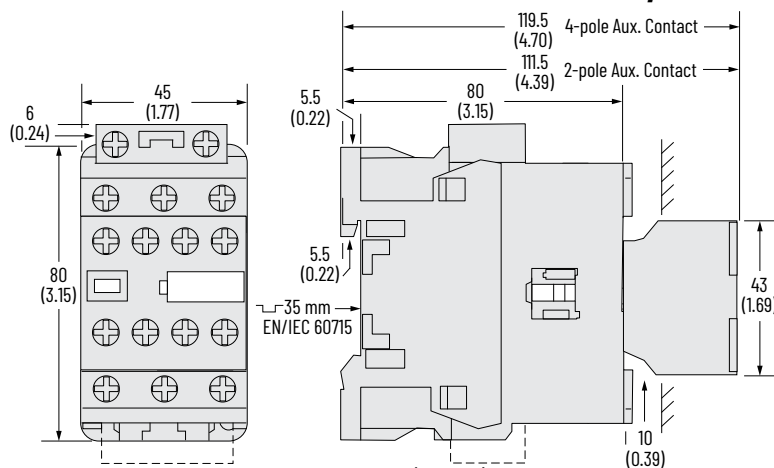
Approximate dimensions

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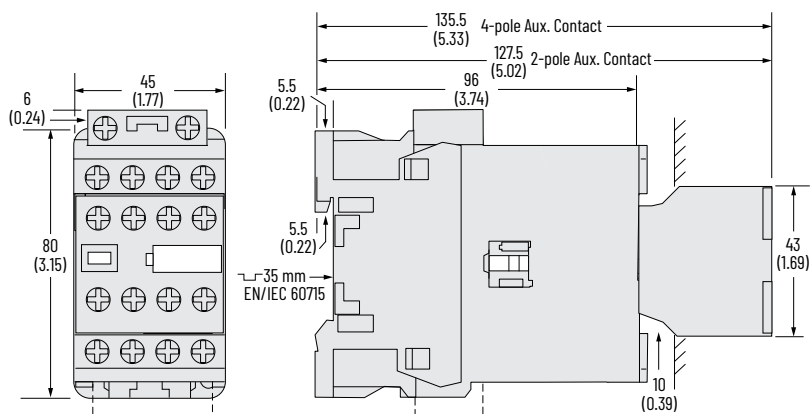
100-E26...100-E38 4-pole contactors with low-consumption coils



100-E26...100-E38 3-pole contactors with standard coils and front-mounted auxiliary contact



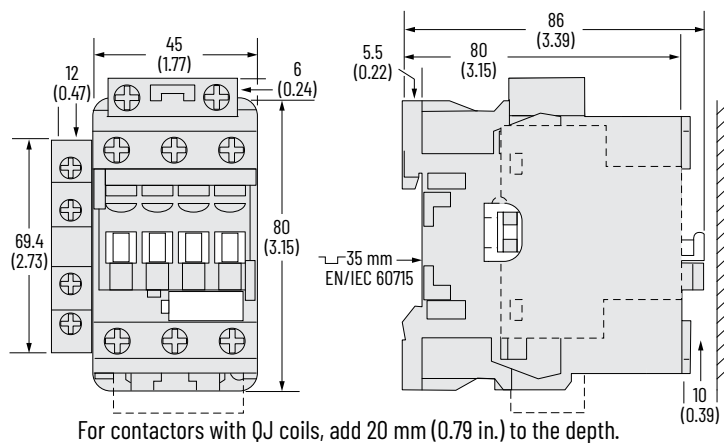
100-E26...100-E38 4-pole contactors with standard coils and front-mounted auxiliary contact



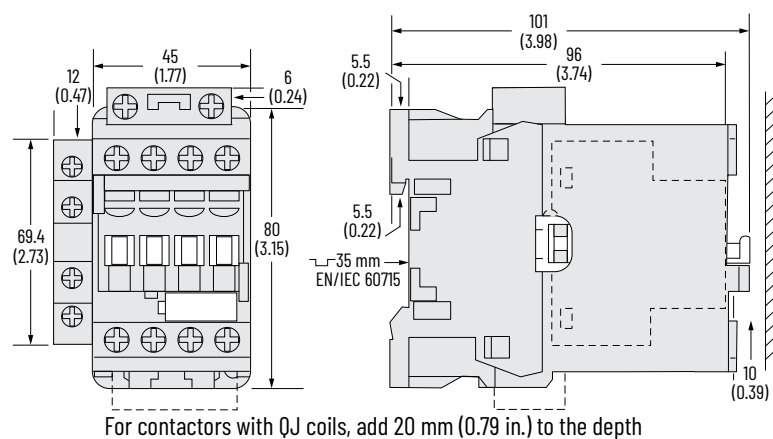
Approximate dimensions

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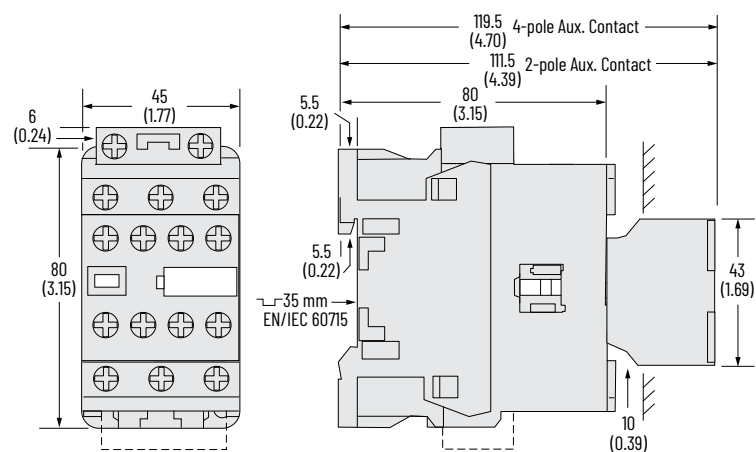
100-E26...100-E38 3-pole contactors with standard coils and side-mounted auxiliary contact



100-E26...100-E38 4-pole contactors with standard coils and side-mounted auxiliary contact



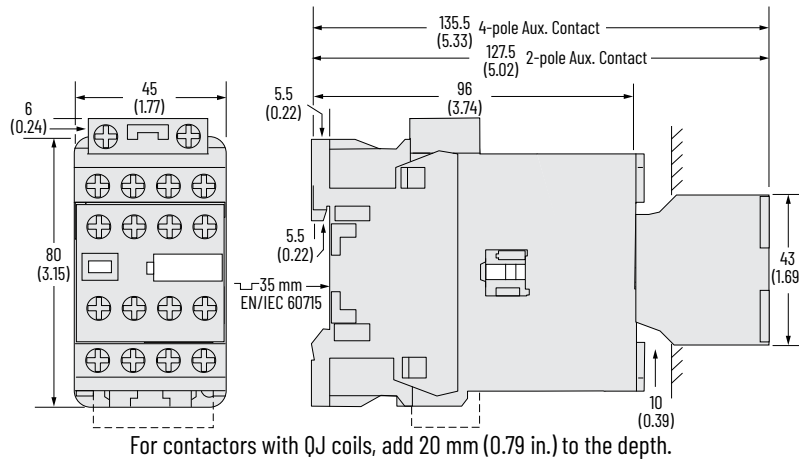
100-E26...100-E38 3-pole contactors with low-consumption coils and front-mounted auxiliary contact



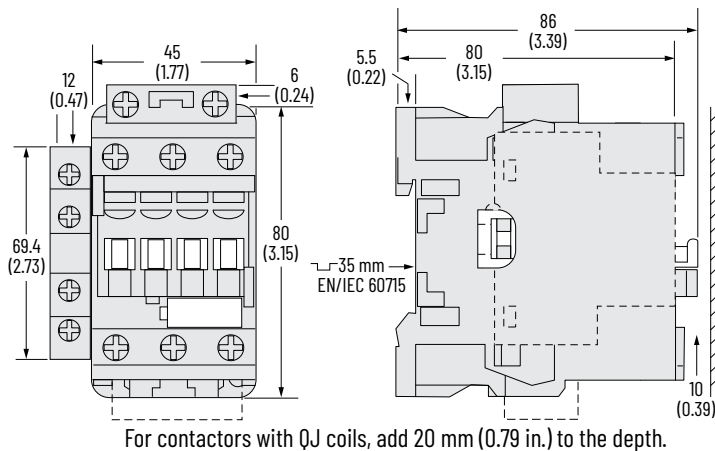
Approximate dimensions

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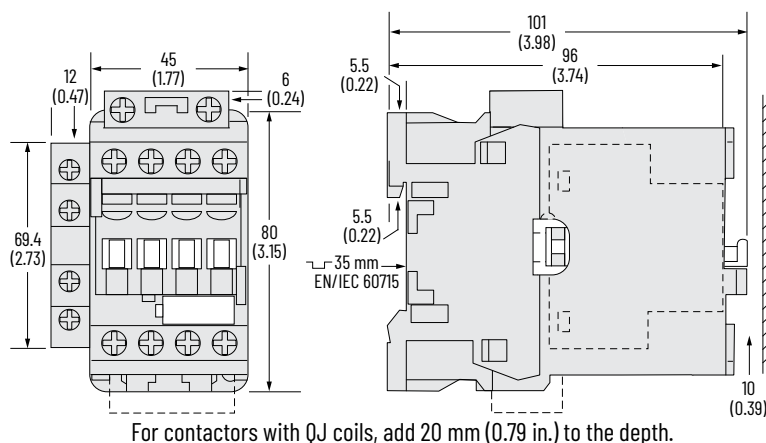
100-E26...100-E38 4-pole contactors with low-consumption coils and front-mounted auxiliary contact



100-E26...100-E38 3-pole contactors with low-consumption coils and side-mounted auxiliary contact



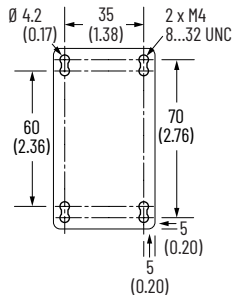
100-E26...100-E38 4-pole contactors with low consumption Coils and Side-mounted Auxiliary Contact



Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

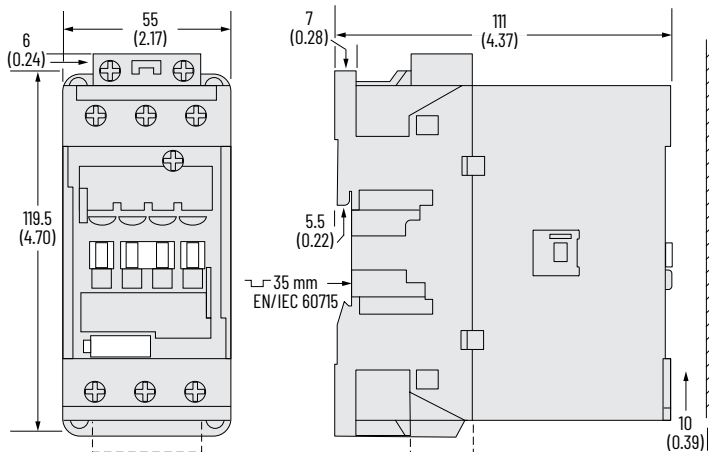
Drilling template for 26...38 A contactors



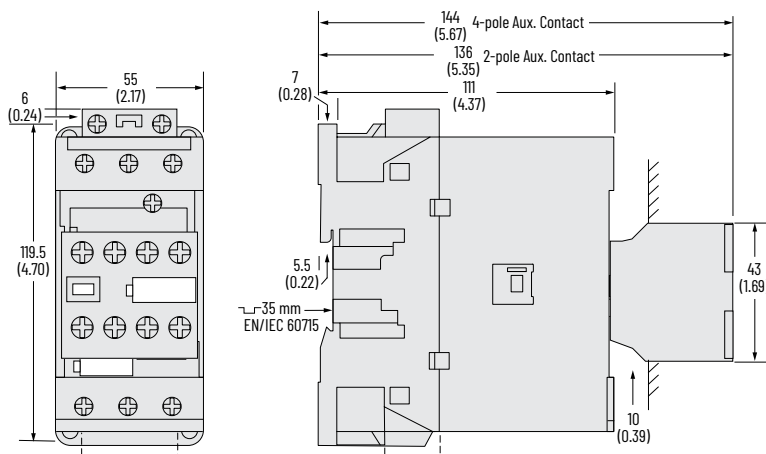
Non reversing contactors

40...65 A Contactors

100-E40...100-E65 3-pole contactors



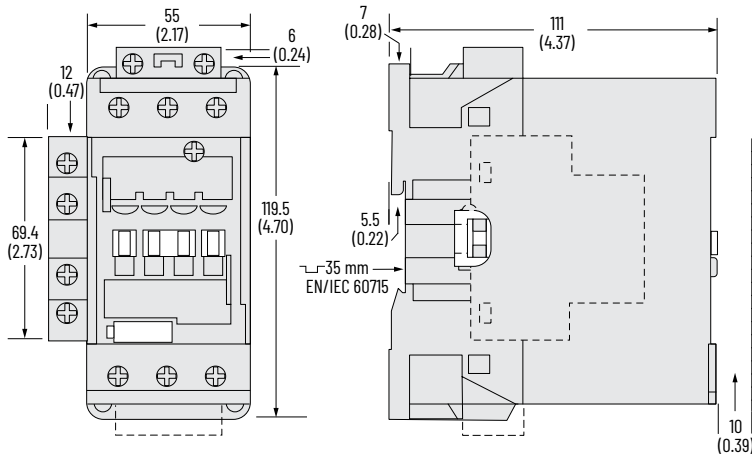
100-E40...100-E65 3-pole contactors with front-mounted auxiliary contact



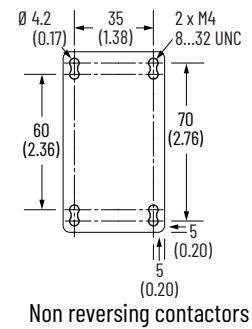
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

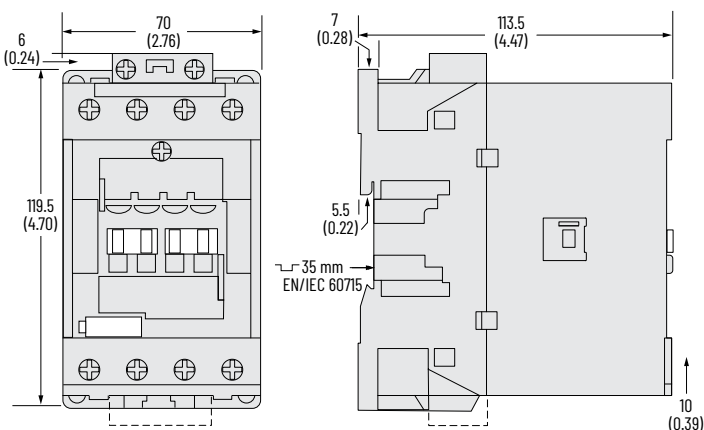
100-E40...100-E65 3-pole contactors with side-mounted auxiliary contact



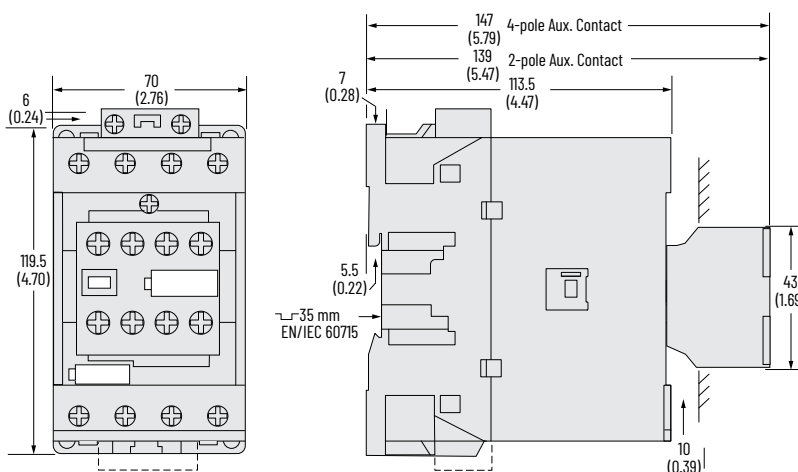
Drilling template for 40...65 3-pole contactors



100-E40...100-E65 3-pole contactors



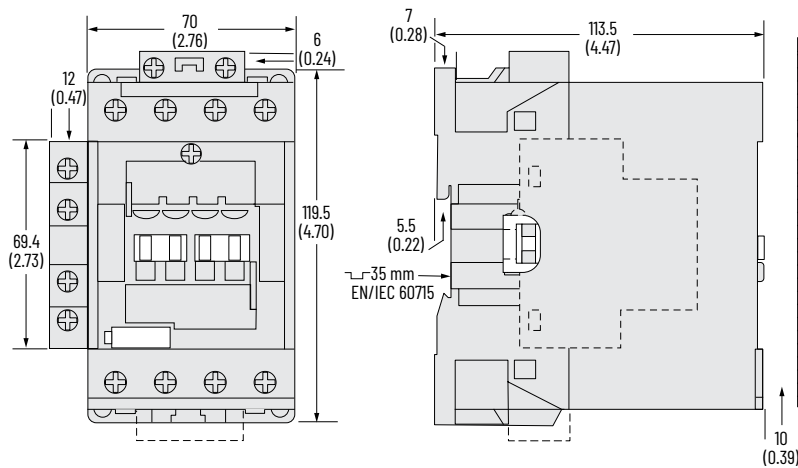
100-E40...100-E52 4-pole contactors with front-mounted auxiliary contact



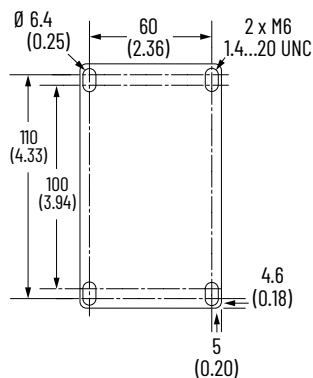
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

100-E40...100-E52 4-pole contactors with side-mounted auxiliary contact

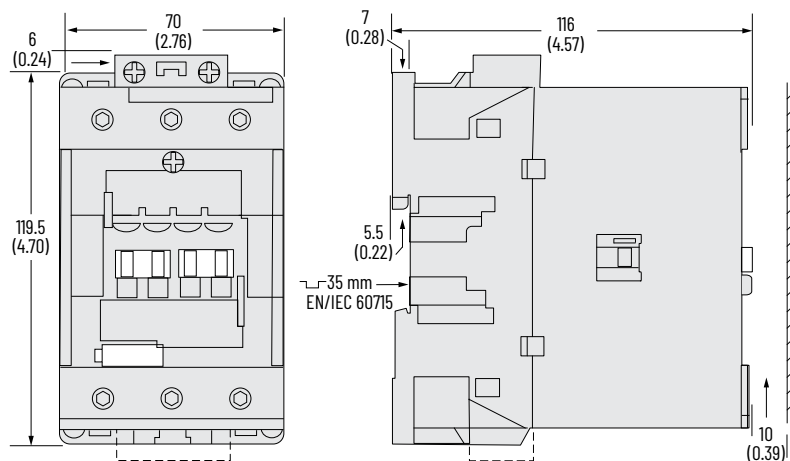


Drilling template for 40...52 A 4-pole contactors



80...96 A Contactors

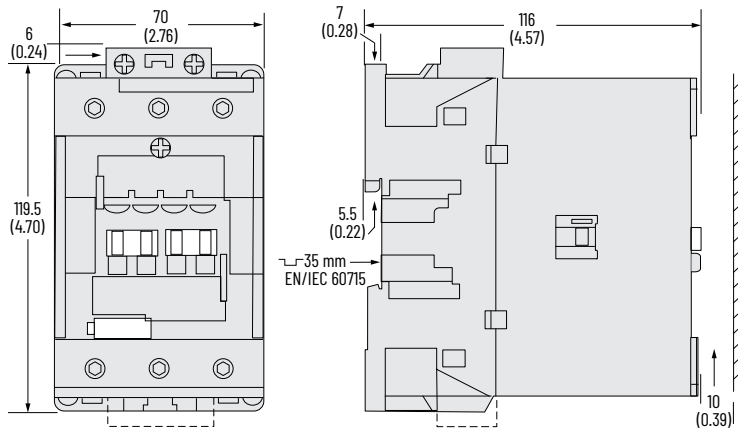
100-E80...100-E96 3-pole contactors



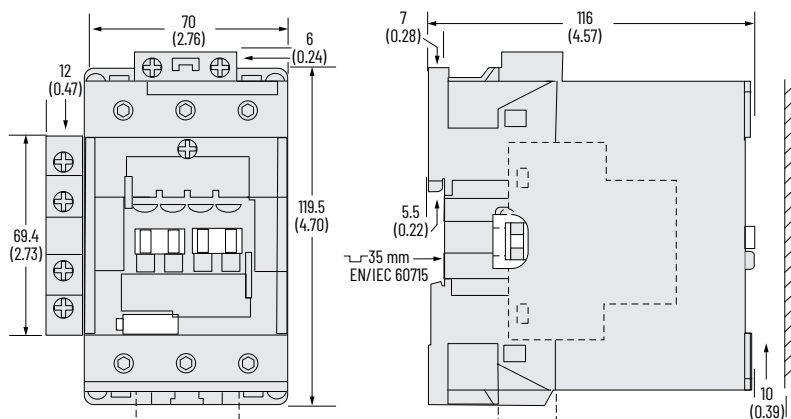
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

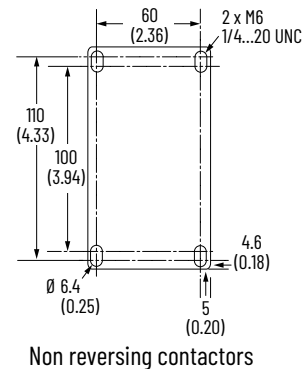
100-E80...100-E96 3-pole contactors with front-mounted auxiliary contact



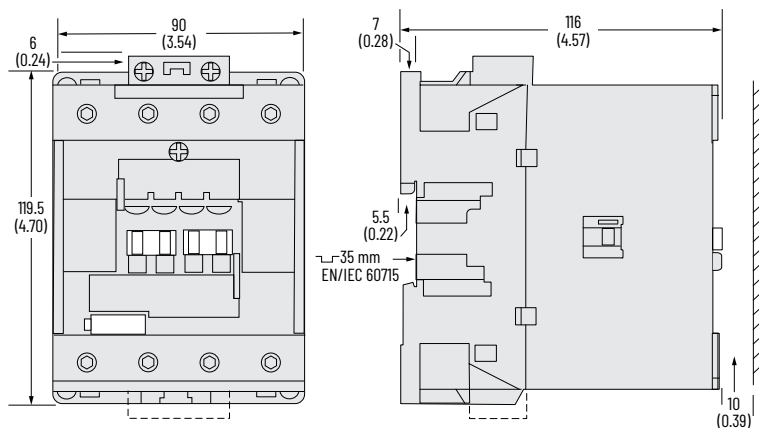
100-E80...100-E96 3-pole contactors with side-mounted auxiliary contact



Drilling template for 80...96 A 3-pole contactors



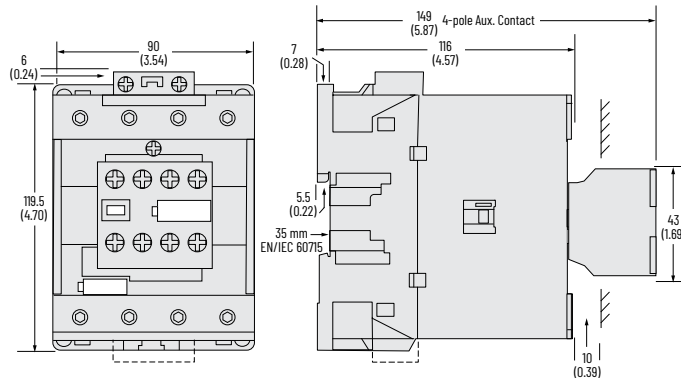
100-E80 4-pole contactors



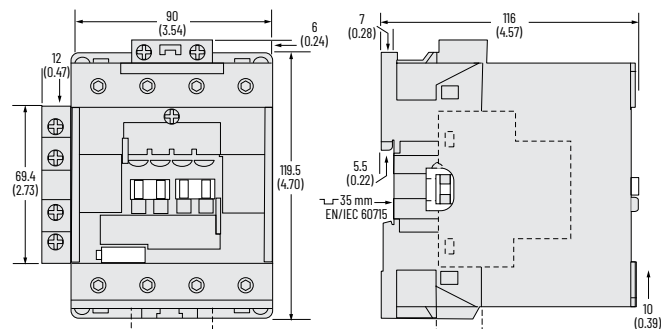
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.

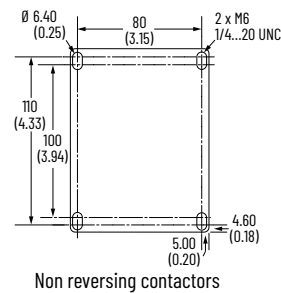
100-E80 4-pole contactors with front-mounted auxiliary contact



100-E80 4-pole contactors with side-mounted auxiliary contact

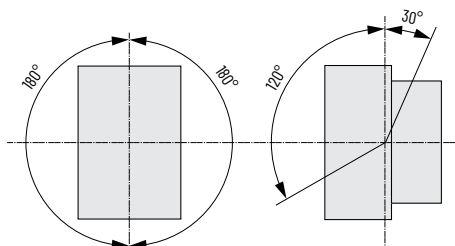


Drilling template for 80 A 4-pole contactors



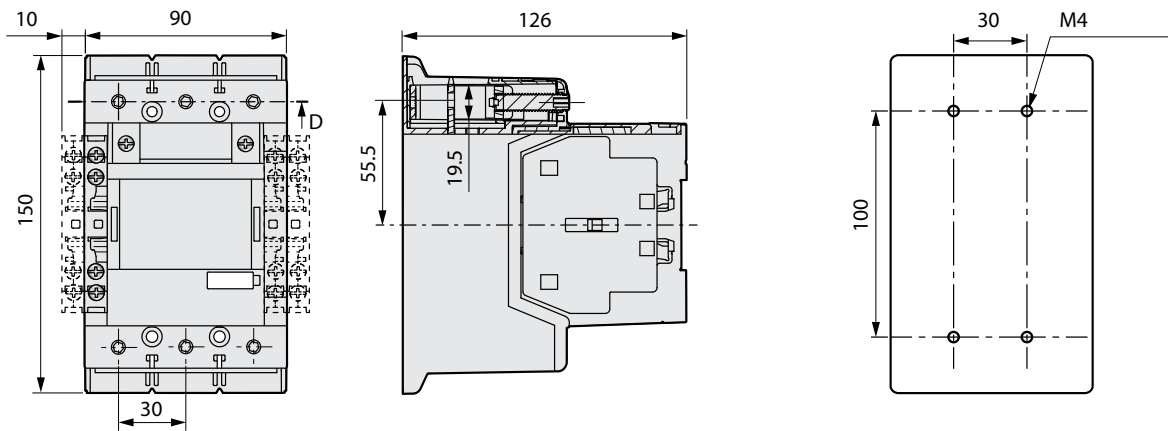
116...2650 A Contactors

Mounting position for 100-E116...100-E2650 devices — AC/DC and AC/DC with PLC input

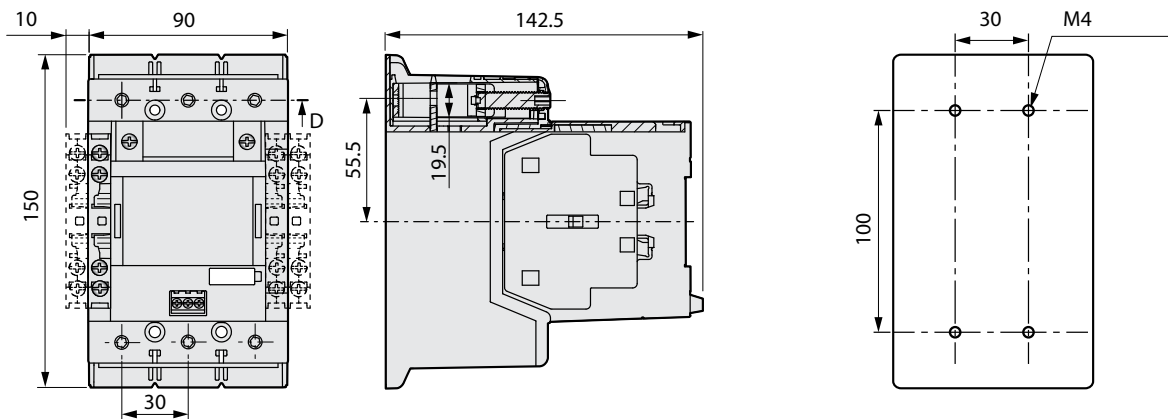


Approximate dimensions

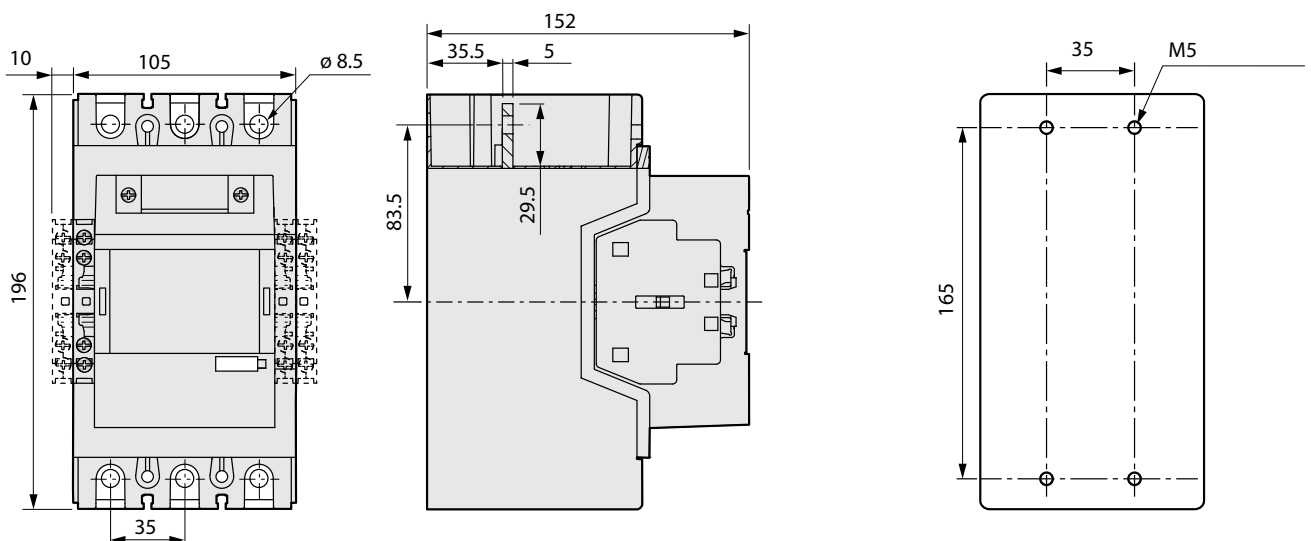
Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.



100-E116K*, 100-E146K*



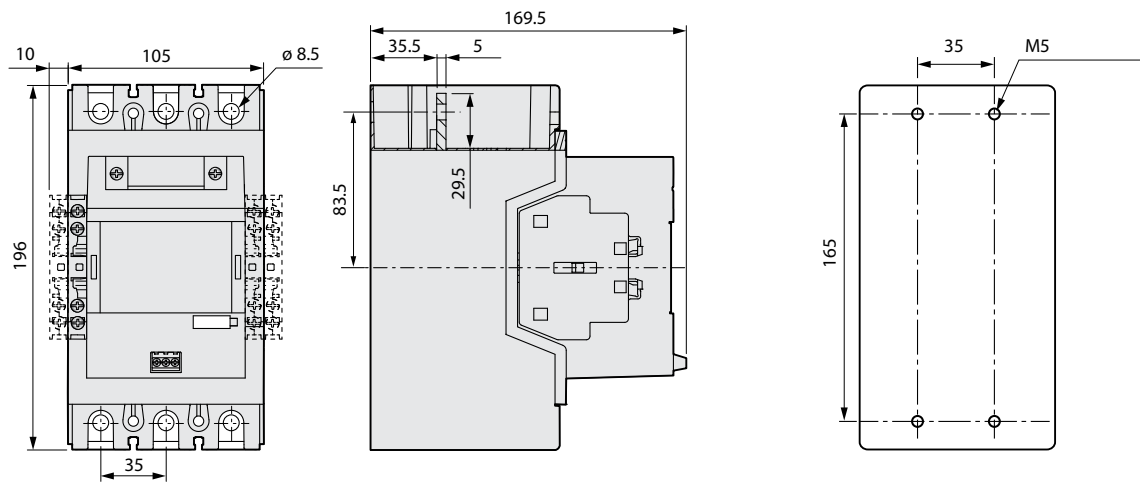
100-E116E*, 100-E146E*



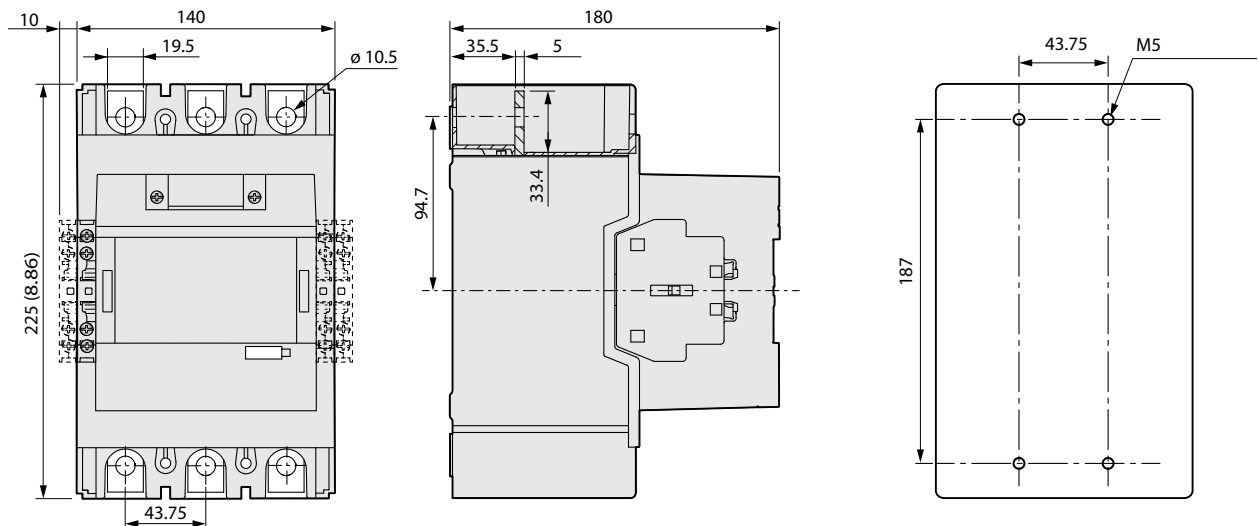
100-E190, 100-E205

Approximate dimensions

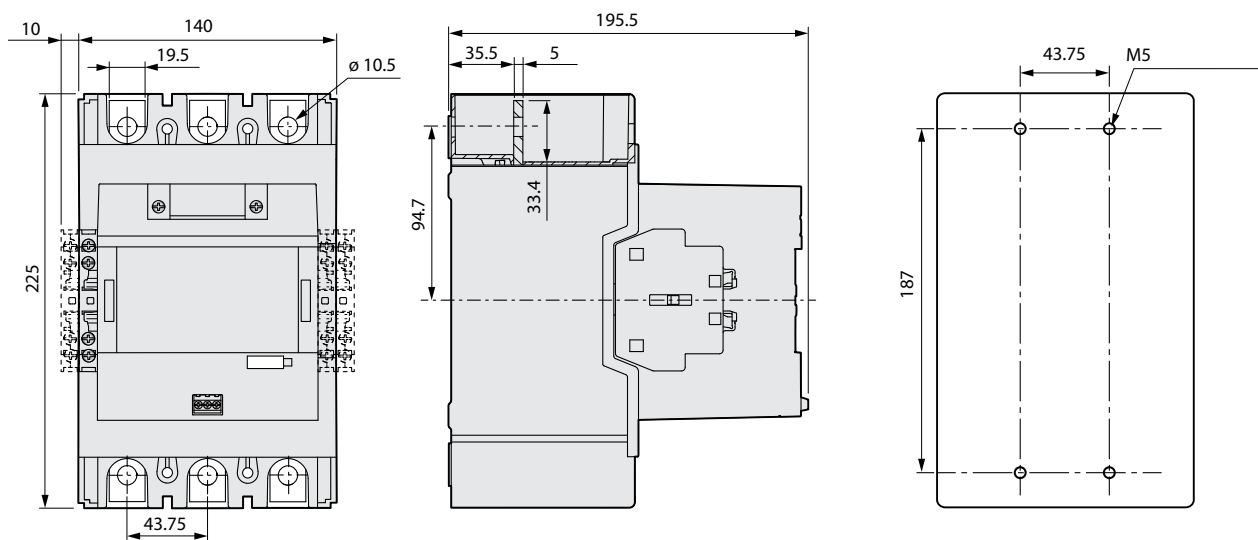
Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.



100-E190E, 100-E205E



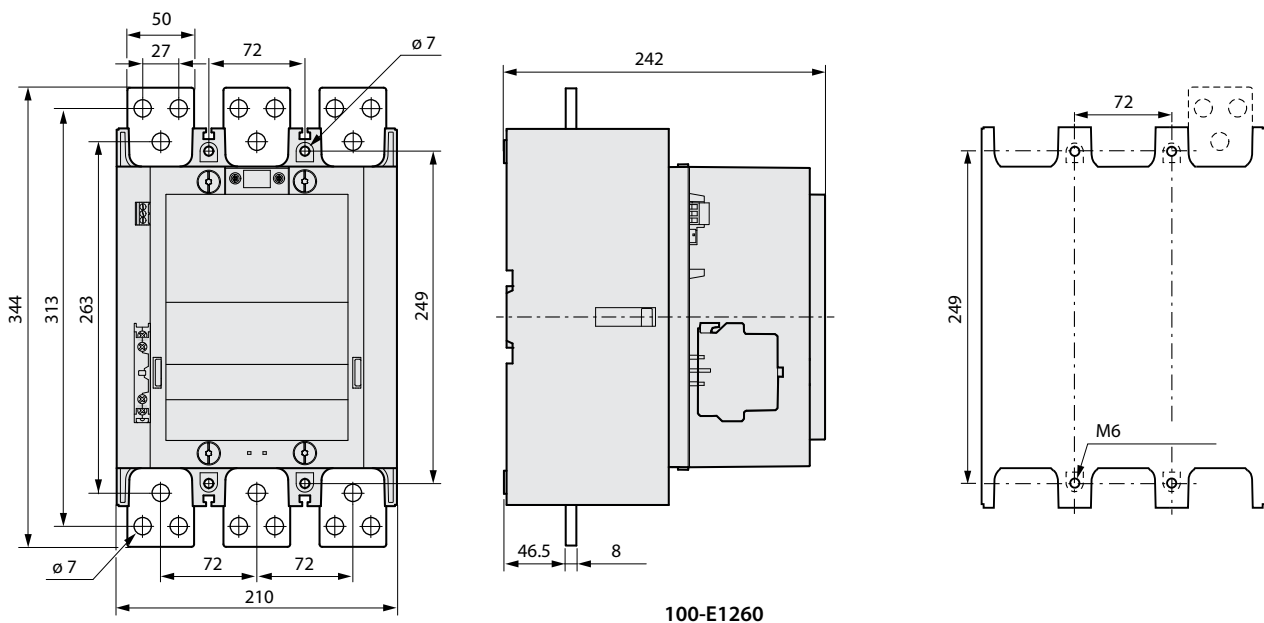
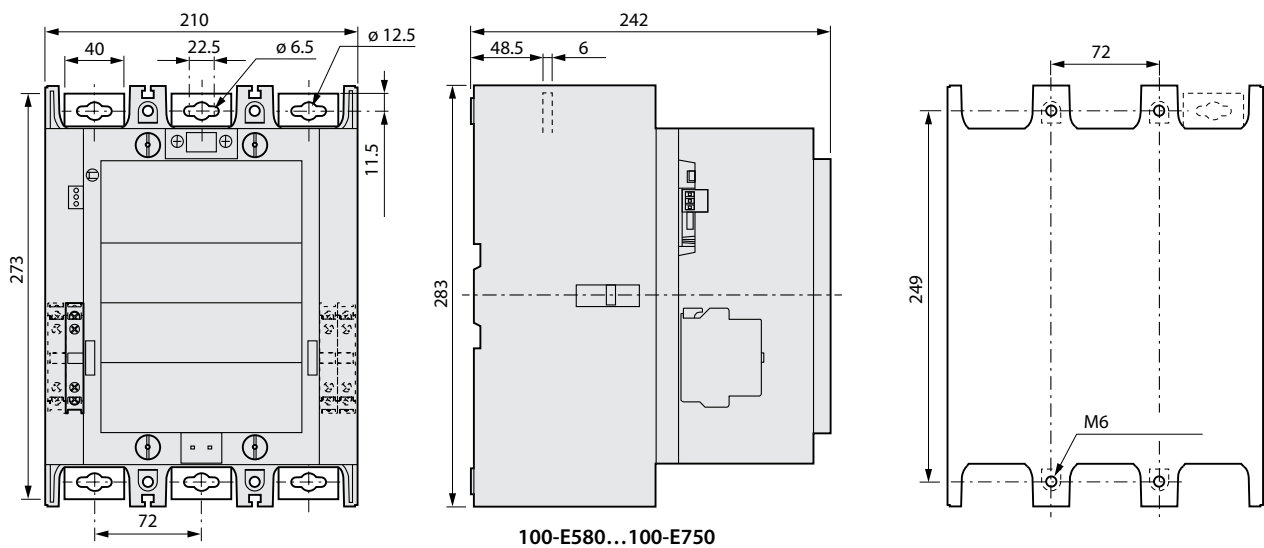
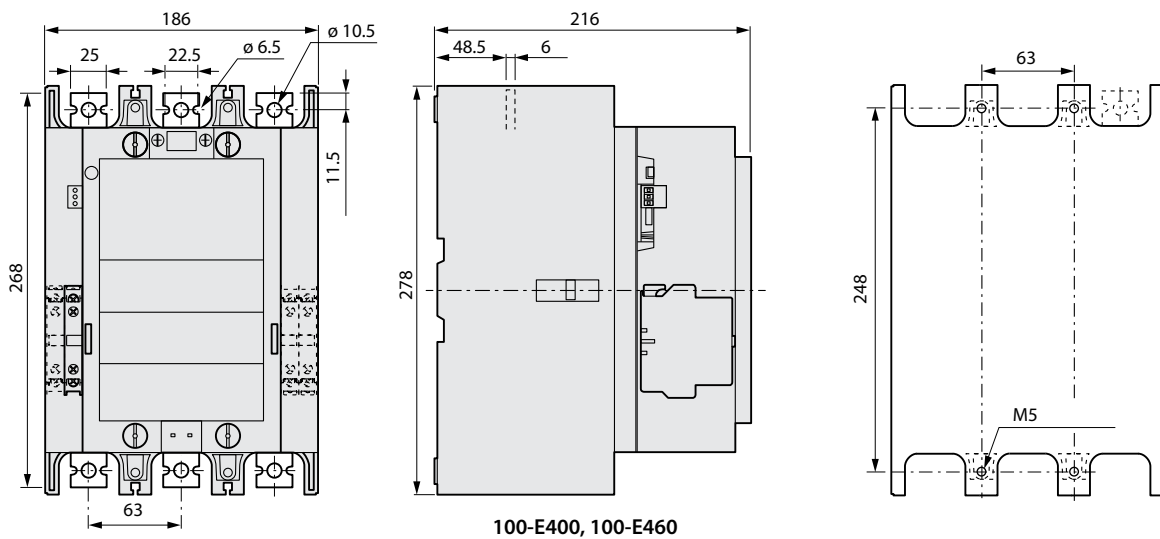
100-E265...100-E370



100-E265E...100-E370E

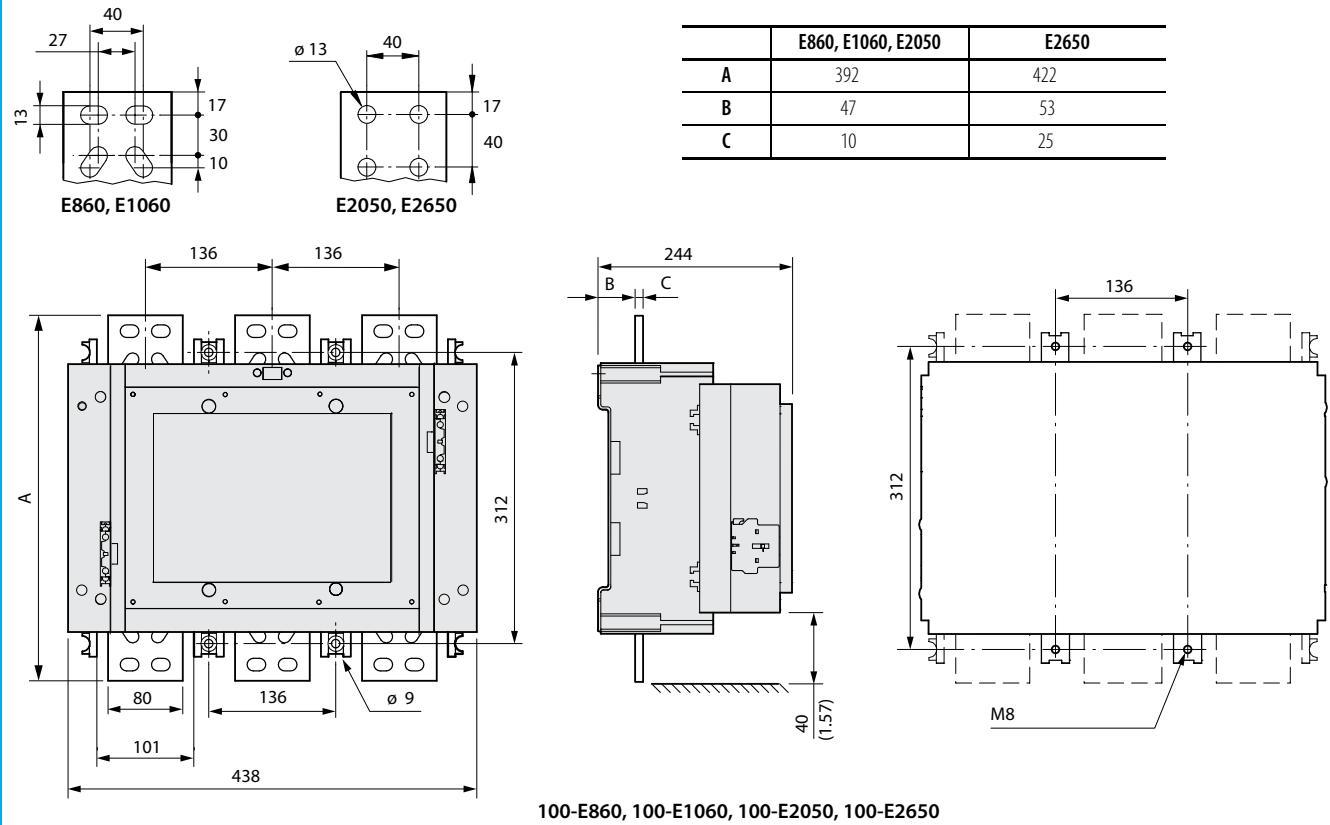
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.



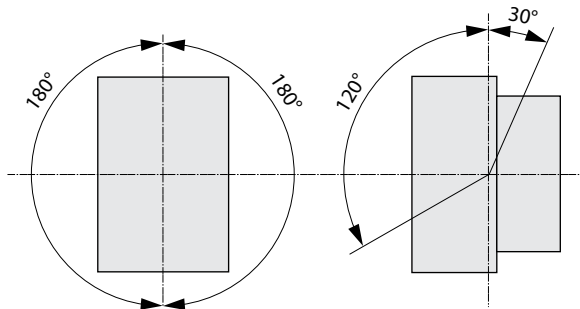
Approximate dimensions

Dimensions are shown in millimetres (inches). Dimensions are not intended for manufacturing purposes.



Mounting position

100-E09...100-E96 - AC/DC and AC/DC with PLC input

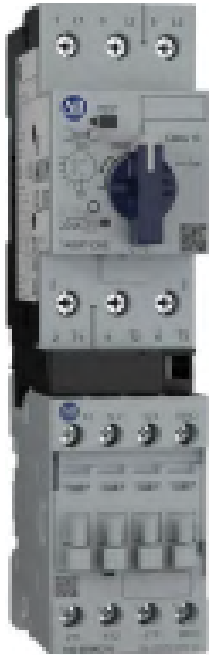


Designed to work together

A variety of combinations and accessories to suit your unique application

Motor starter solutions

With overload protection built into motor protection circuit breakers (140MT), you can save cost and space in your panel.



Three-component starters

With a separate overload relay (E100/200/300), you can tailor the level of motor protection you want.



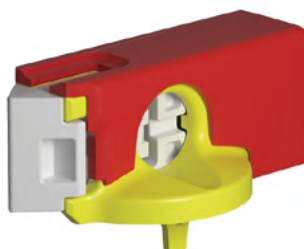
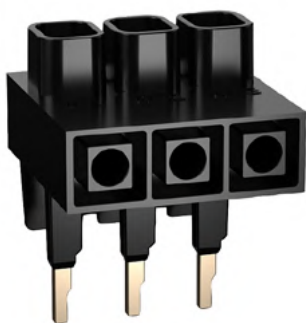
Mounting systems

Keep your panels clean, organised and compact with our flexible mounting solutions.



Accessories

Our extensive and fully integrated line of accessories provide flexible, modular control.



Smart motor control

Allen-Bradley contactors form part of the complete smart motor control portfolio available from NHP. Consider the benefits of smart motor control:

- Operate and maintain motor performance through intelligent equipment and networks
- Monitor energy consumption to reduce energy bills
- Minimise start-up times and simplified troubleshooting
- Mitigate potential hazards through remote monitoring capabilities
- Reduce unplanned downtime with alarms and advanced diagnostic information
- Increase performance and flexibility through seamless communication and system visibility

Smart control of the whole system



A partnership with NHP will provide you with:



24/7/365
Emergency service



NHP project
management



Extensively trained
and qualified service
technicians



National service
network



Extensive local
stockholding



Customised
manufactured
solutions





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