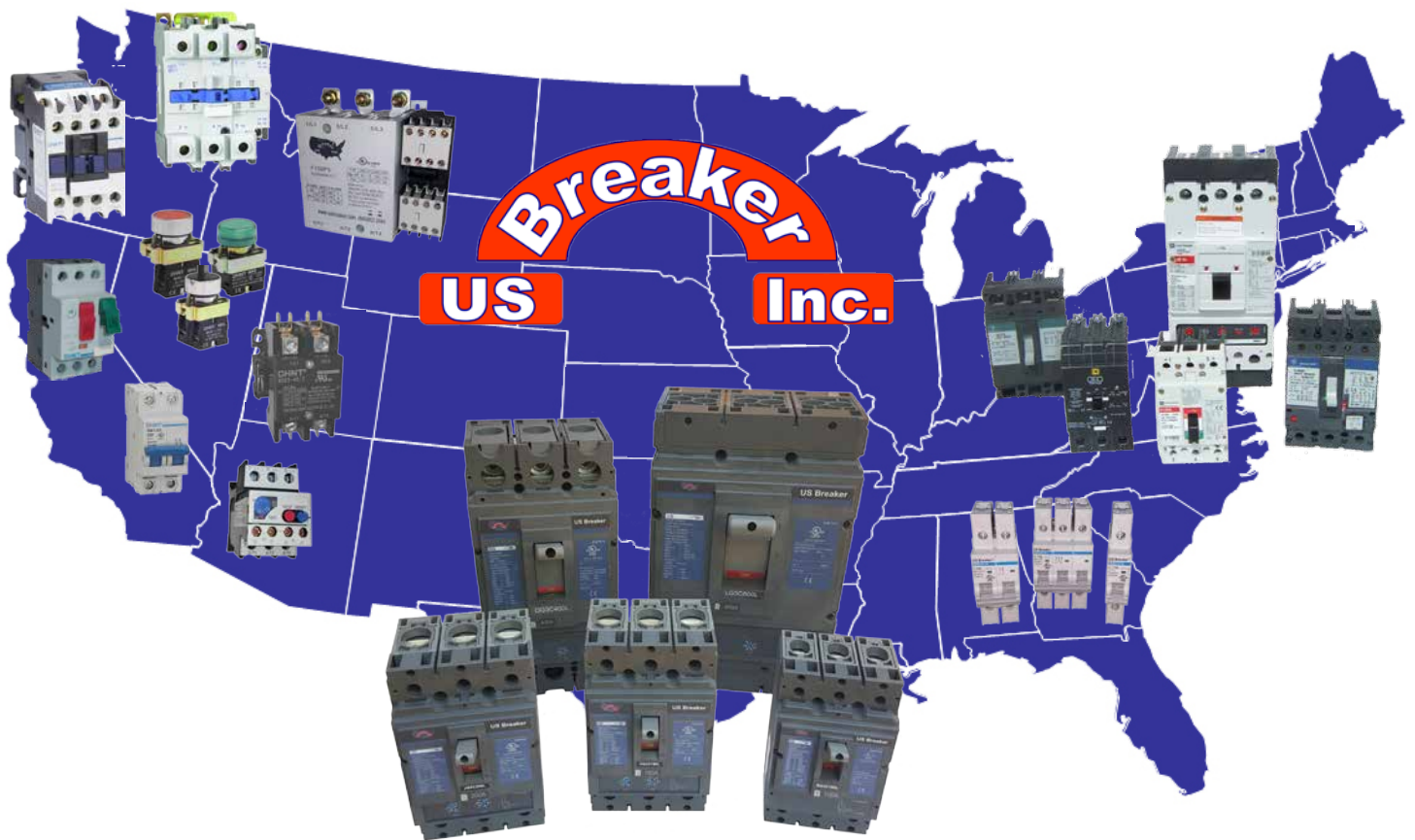


US Breaker, Inc.

Contactors & Overloads V-24



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US Breaker Brand 3 Pole AC Contactors (Square D Telemecanique LC1 Replacement Cross Ref)

- ✓ UL Listed (US & CAN) File E481916, IEC 60947, and CE Marked
- ✓ Integral DIN Rail & Base Mounting in One Compact Footprint
- ✓ Superior ISO Quality Proven by Multiple Global Standard Certifications



NC1 D09-D18



NC1 D25-D32



NC1 D40-D65



NC1 D80-D95

9 - 32 Amp Contactors - NC1D (LC1D) 3P 600Vmax - Control Coil (Included)

Size NC1-	US Breaker- Brand Part #	Telemecanique Cross Reference		Description	3 Phase Hp		Auxiliaries		Price Each
		Direct	Similar ⁽¹⁾		240V	460V	NO	NC	
D09	NC1D0910 - V <u> </u>	LC1D0910	LC1D09	NC1-D09 Contactor 9A (Ith=20A) 3 Main + 1NO Aux	3	5	1	0	\$14.94
	NC1D0901 - V <u> </u>	LC1D0901	LC1D09	NC1-D09 Contactor 9A (Ith=20A) 3 Main + 1NC Aux	3	5	0	1	\$14.94
D12	NC1D1210 - V <u> </u>	LC1D1210	LC1D12	NC1-D12 Contactor 12A (Ith=20A) 3 Main + 1NO Aux	5	7.5	1	0	\$16.56
	NC1D1201 - V <u> </u>	LC1D1201	LC1D12	NC1-D12 Contactor 12A (Ith=20A) 3 Main + 1NC Aux	5	7.5	0	1	\$16.56
D18	NC1D1810 - V <u> </u>	LC1D1810	LC1D18	NC1-D18 Contactor 18A (Ith=32A) 3 Main + 1NO Aux	7.5	10	1	0	\$20.95
	NC1D1801 - V <u> </u>	LC1D1801	LC1D18	NC1-D18 Contactor 18A (Ith=32A) 3 Main + 1NC Aux	7.5	10	0	1	\$20.95
D25	NC1D2510 - V <u> </u>	LC1D2510	LC1D25	NC1-D25 Contactor 25A (Ith=40A) 3 Main + 1NO Aux	10	15	1	0	\$25.19
	NC1D2501 - V <u> </u>	LC1D2501	LC1D25	NC1-D25 Contactor 25A (Ith=40A) 3 Main + 1NC Aux	10	15	0	1	\$25.19
D32	NC1D3210 - V <u> </u>	LC1D3210	LC1D32	NC1-D32 Contactor 32A (Ith=50A) 3 Main + 1NO Aux	15	20	1	0	\$35.94
	NC1D3201 - V <u> </u>	LC1D3201	LC1D32	NC1-D32 Contactor 32A (Ith=50A) 3 Main + 1NC Aux	15	20	0	1	\$35.94

└─ Insert the AC control coil voltage of 24, 120 or 240 (example: **NC1D0910-V120**)

1) US Breaker 3 pole D09 - D32 contactors include a NO or NC aux contact in the 4th pole. Add an NC-F4-11 for a "similar" cross reference if an additional front aux is required.

40 - 95 Amp Contactors - NC1D (LC1D) 3P 600Vmax - Control Coil (Included)

Size NC1-	US Breaker- Brand Part #	Telemecanique Cross Reference		Description	3 Phase Hp		Auxiliaries		Price Each
		Direct	Direct		240V	460V	NO	NC	
D40	NC1D4011 - V <u> </u>	LC1D4011	LC1D40	NC1-D40 Contactor 40A (Ith=60A) 3 Main + 1NO/1NC	20	25	1	1	\$48.64
D50	NC1D5011 - V <u> </u>	LC1D5011	LC1D50	NC1-D50 Contactor 50A (Ith=80A) 3 Main + 1NO/1NC	20	30	1	1	\$59.53
D65	NC1D6511 - V <u> </u>	LC1D6511	LC1D65	NC1-D65 Contactor 65A (Ith=80A) 3 Main + 1NO/1NC	25	40	1	1	\$67.02
D80	NC1D8011 - V <u> </u>	LC1D8011	LC1D80	NC1-D80 Contactor 80A (Ith=95A) 3 Main + 1NO/1NC	30	40	1	1	\$83.94
D95	NC1D9511 - V <u> </u>	LC1D9511	LC1D95	NC1-D95 Contactor 95A (Ith=110A) 3 Main + 1NO/1NC	30	50	1	1	\$109.28

└─ Insert the AC control coil voltage of 24, 120 or 240 (example: **NC1D0910-V120**)

US Breaker Brand 3 Pole 115 - 400A Contactors

115 - 400 Amp Contactors - Series F (LC1F) 3P 600V max - Control Coil (Included)



F185-P3



F400-P3

Size Ref	US Breaker- Brand Part #	Telemecanique.		Description	3 Phase Hp		Auxiliaries		Price Each
		Direct Cross Ref			240V	460V	NO	NC	
F115	F115 P3 V <u> </u>	LC1F115		3 Pole Contactor 115A (Ith=200A) with Control Coil	40	75	-	-	\$161.00
F150	F150 P3 V <u> </u>	LC1F150		3 Pole Contactor 150A (Ith=200A) with Control Coil	50	100	-	-	\$269.41
F185	F185 P3 V <u> </u>	LC1F185		3 Pole Contactor 185A (Ith=275A) with Control Coil	60	100	-	-	\$382.32
F265	F265 P3 V <u> </u>	LC1F265		3 Pole Contactor 265A (Ith=315A) with Control Coil	100	150	-	-	\$475.10
F330	F330 P3 V <u> </u>	LC1F330		3 Pole Contactor 330A (Ith= 380A) with Control Coil	125	200	-	-	\$533.79
F400	F400 P3 V <u> </u>	LC1F400		3 Pole Contactor 400A (Ith= 450A) with Control Coil	150	250	-	-	\$638.40

└─ Insert the AC control coil voltage of 120, 240 or 480 (example: **F115 P3 V120**)



US Breaker Brand 4 Pole AC Contactors (Square D Telemecanique LC1 Replacement Cross Ref)



NC1D1208



NC1D2504



NC1D6508



NC1D9508

9 - 65 Amp Contactors - NC1D (LC1D) 4P 600Vmax - Control Coil (Included)

Size NC1-	US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Main Contacts		Price Each
		Direct	Similar ⁽¹⁾		NO	NC	
D09 - D12	NC1D1204 - V	LC1D12004	LC1DT25	NC1-D12 Contactor 12A (Ith=20A) 4 NO Main Contacts	4	0	\$24.91
	NC1D1208 - V	LC1D12008	LC1D128	NC1-D12 Contactor 12A (Ith=20A) 2NO/2NC Main Contacts	2	2	\$24.91
D18 - D25	NC1D2504 - V	LC1D25004	LC1DT40	NC1-D25 Contactor 25A (Ith=40A) 4 NO Main Contacts	4	0	\$42.90
	NC1D2508 - V	LC1D25008	LC1D258	NC1-D25 Contactor 25A (Ith=40A) 2NO/2NC Main Contacts	2	2	\$42.90
D40 - D65	NC1D6504 - V	LC1D65004	LC1DT80A	NC1-D65 Contactor 65A (Ith=80A) 4 NO Main Contacts	4	0	\$95.16
	NC1D6508 - V	LC1D65008	-	NC1-D65 Contactor 65A (Ith=80A) 2NO/2NC Main Contacts	2	2	\$95.16

└─ Insert the AC control coil voltage of 24, 120 or 240 (example: NC1D1204-V120)

1) US Breaker 4 pole D12 - D65 contactors include four fully rated poles. Add an NC-F4-11 for a "similar" cross reference if an additional front auxiliary contact is required.

80 - 95 Amp Contactors - NC1D (LC1D) 4P 600Vmax - Control Coil (Included)

Size NC1-	US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Main Contacts		Price Each
		Direct	Direct		NO	NC	
D95	NC1D9504 - V	LC1D80004	LC1D80004	NC1-D95 Contactor 95A (Ith=110A) 4 NO Main Contacts	4	0	\$149.97
	NC1D9508 - V	LC1D80008	LC1D80008	NC1-D95 Contactor 95A (Ith=110A) 2NO/2NC Main Contacts	2	2	\$149.97

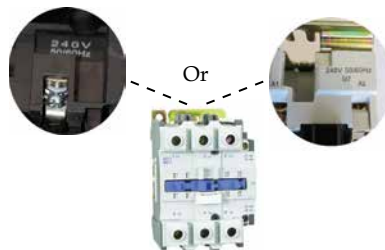
└─ Insert the AC control coil voltage of 24, 120 or 240 (example: NC1D6504-V120)

How to Identify Contactor Control Coil Voltages

- ✓ The Control Voltage is Marked Near the A1-A2 Terminals and is Also Measured Between the A1-A2 Terminals
- ✓ The Main Power Voltage can be anything up to 600V, but the control coil circuit voltage needs to match.



D09 to D32 Sizes



D40 to D95 Sizes



F115 to F400 Sizes

Telemecanique Typical Coil Identification	AC Volts	24V	48V	110V	120V	208V	220V	230V	240V	440V	480V
		Code	B7	E7	F7	G6	L6	M7	P7	U6	R5

- Please contact US Breaker for other NC1D & Series F family contactor coil voltages.
- Telemecanique part numbers are provided to assist product selection. Proper engineering evaluation is required for each customer application.



NC Family Contactor Accessories (Square D Telemecanique Replacement Cross Ref)

Auxiliary Contacts for NC1D09 - NC1D95 & F115 - F400 Contactors



NCF411



NCF422

US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Price Each
	Direct	Similar		
NC F4 20	LA1DN 20	LADN 20	2 NO Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$7.41
NC F4 11	LA1DN 11	LADN 11	1NO/1NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$7.41
NC F4 02	LA1DN 02	LADN 02	2NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$7.41
NC F4 40	LA1DN 40	LADN 40	4NO Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$11.73
NC F4 31	LA1DN 31	LADN 31	3NO/1NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$11.73
NC F4 13	LA1DN 13	LADN 13	1NO/3NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$11.73
NC F4 04	LA1DN 04	LADN 04	4NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$11.73
NC F4 22	LA1DN 22	LADN 22	2NO/2NC Front Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for all NC/F Contactors 9A - 400A	\$11.73
NCF1 11C	LA8DN 11	LA8DN 11	1NO/1NC Side Mount Aux (Ui=690V, Ith=10A, AC15=380VA) for NC Contactors only 9A - 95A	\$9.90

Front Mounted Time Delay Blocks for NC1D09 - NC1D95 & F115 - F400 Contactors



NCF111C

US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Price Each
	Direct	Similar		
NC F5 T2	LA2DT2	LADT2	NC/F 9A to 400A Time Delay Block 0.1 - 30s Making Time Delay with 1NO/1NC Contacts	\$27.06
NC F5 D2	LA3DR2	LADR2	NC/F 9A to 400A Time Delay Block 0.1 - 30s Breaking Time Delay with 1NO/1NC Contacts	\$27.06

Mechanical Interlocks for Reversing Contactor Application



NCF5T2



NCM10932A

US Breaker- Brand Part #	Description	Price Each
NC MI 09 32A	Mechanical Interlock for Reversing Application of NC1D Sizes D09, D12, D18, D25, & D32	\$8.95
NC MI 40 65A P	Mechanical Interlock for NC1 D40, D50 & D65 Molded Base 3P Contactors	\$12.95
NC MI 80 95A P	Mechanical Interlock for NC1 D80 & D95 3P or D40 & D65 4P Molded Base Contactors	\$13.98
NC MI 80 95 4P	Mechanical Interlock for NC1 D80 - D95 4 Pole Molded Base Contactors	\$14.66
NC MI 150	Mechanical Interlock for F115 - F150 Contactors	\$22.00
NC MI 185	Mechanical Interlock for F185 Contactors	\$31.90
NC MI 265	Mechanical Interlock for F265 Contactors	\$34.88

Coil Surge Suppressors for NC1 D09 - D32 Contactors



NCSR2A

US Breaker- Brand Part #	Description	Price Each
NCSR2A120240	Surge Suppressor for NC D09 to D32 Contactor Coils from 100V - 250Vac	\$12.98
NCSR2A24	Surge Suppressor for NC D09 to D32 Contactor Coils from 24V - 48Vac	\$12.98

DIN Rail



DIN-9

US Breaker- Brand Part #	Description	Price Each
DIN-9	Standard 35mm Mount Din Rail - 9.8 inch piece	\$2.98

Enclosure For US Breaker NC1 D09 - D32 Contactors & Starters (Enclosure Only for On-site DOL Starter Assembly Program)



NC-NQ2-AS2-32

- ✓ CHNT UL Listed Metal General Purpose Enclosure with Built in DIN Rail Mount
- ✓ Sold as Enclosure Only for Field Customization and Inventory Reduction
- ✓ Kit Includes Enclosure with Start/Stop Pushbutton and Internal Wiring

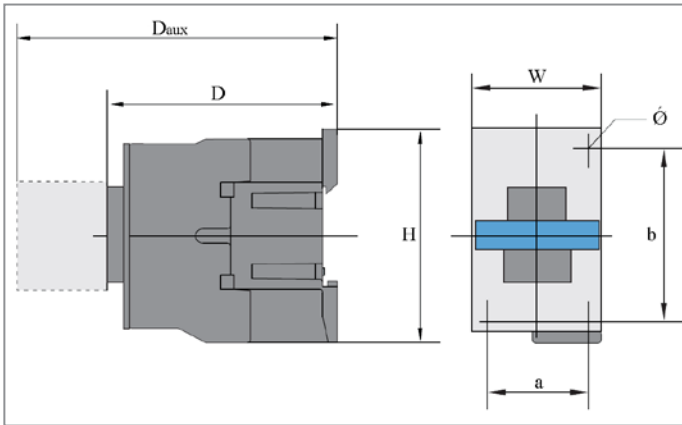
US Breaker Part #	Description	Price
NC-NQ2-AS2-32	UL Metal Enclosure with On/Off Buttons for NC1D09 - NC1D32 Contactors	\$29.94

- Enclosure is sold separately. Please select your contactor and overload relay for field installation.



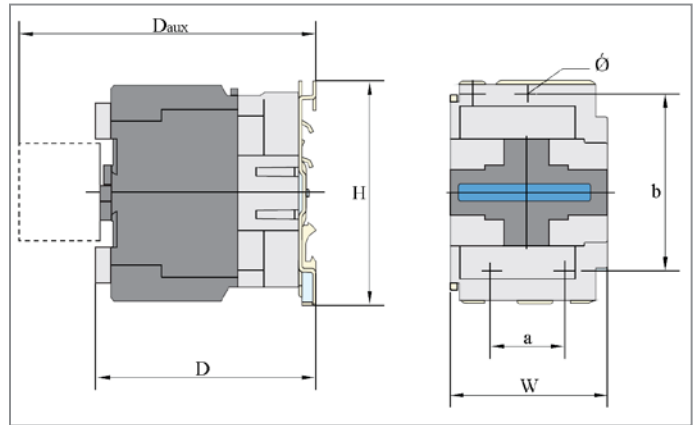
NC1D Contactor Dimensions (in.)

NC1-D09 to NC1-D32



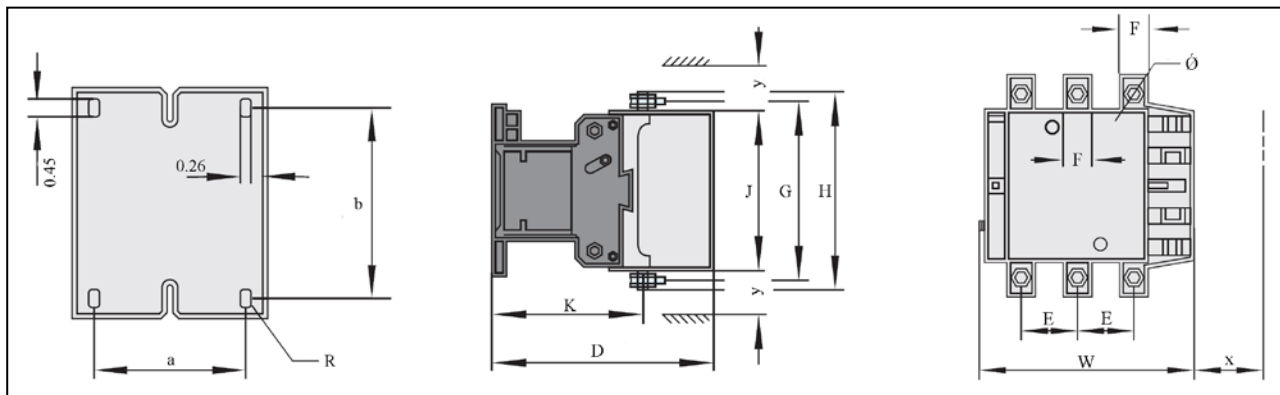
NC1D Dim (in)	H	W	D	Daux	a	b	Ø
NC1 D09 to D12	3.0	1.9	3.2	4.7	1.3-1.4	2.0-2.4	0.18
NC1 D18	3.0	1.9	3.4	4.9	1.3-1.4	2.0-2.4	0.18
NC1 D25	3.4	2.2	3.7	5.3	1.6	1.9	0.18
NC1 D32	3.4	2.2	3.9	5.5	1.6	1.9	0.18

NC1-D40 to NC1-D95



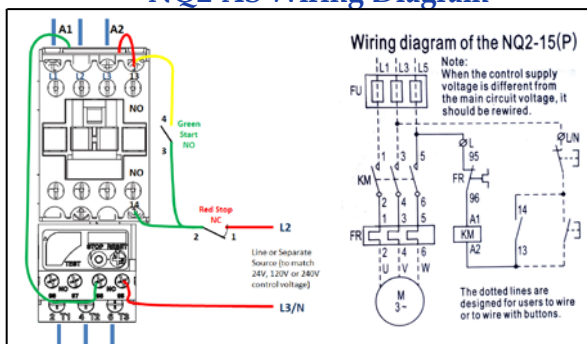
NC1D Dim (in)	H	W	D	Daux	a	b	Ø
NC1 D4011 to D6511	5.1	3.0	4.6	6.1	1.6	3.9	0.26
NC1 D6504 & D6508	5.1	3.3	4.6	6.1	1.6	3.9	0.26
NC1 D8011 to D9511	5.1	3.4	5.0	6.5	1.6	3.9-4.3	0.26
NC1 D9504 & D9508	5.1	3.8	5.0	6.5	1.6	3.9-4.3	0.26

Series F Contactor Dimensions

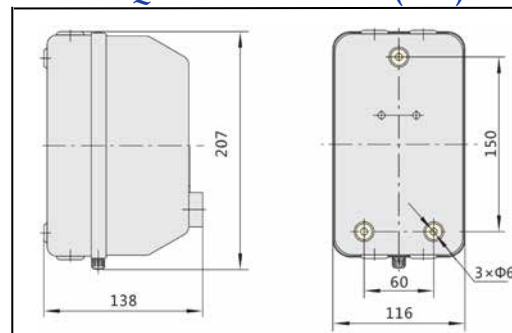


3P Dim (in)	H	W	D	E	F	G	J	K	a	b	x	y <500V	y >500V	Ø - Bolt	Torque
F115	6.4	6.6	6.8	1.5	0.8	5.8	4.9	4.2	3.1	4.3-4.7	5.2	0.4	0.6	M6	3 N•M
F150	6.7	6.6	6.8	1.6	0.8	5.9	4.9	4.2	3.1	4.3-4.7	5.2	0.4	0.6	M8	6 N•M
F185	6.9	6.7	7.2	1.6	0.8	6.1	5.0	4.5	3.1	4.3-4.7	5.2	0.4	0.6	M8	6 N•M
F265	8.0	8.0	8.5	1.9	1.0	7.0	5.8	5.6	3.8	4.3-4.7	5.8	0.4	0.6	M10	10 N•M
F330	8.2	8.5	8.7	1.9	1.0	7.1	6.2	5.7	3.8	4.3-4.7	5.8	0.4	0.6	M10	10 N•M
F400	8.2	8.5	8.7	1.9	1.0	7.1	6.2	5.7	3.1	6.7-7.1	5.8	0.4	0.6	M10	10 N•M

NQ2-AS Wiring Diagram



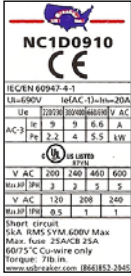
NQ2-AS Dimensions (mm)





Contactor Technical Data

D09 - D95 Sizes

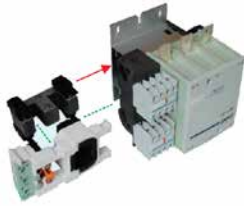


NC1D Type		NC1-D09	NC1-D12	NC1-D18	NC1-D25	NC1-D32	NC1-D40	NC1-D50	NC1-D65	NC1-D80	NC1-D95
Thermal Current Ith (AC-1 IEC) Amps	660V	20	20	32	40	50	60	80	80	95	110
Inductive Current (AC-3 IEC) Amps	380/400V	9	12	18	25	32	40	50	65	80	95
UL Power Rating 3 Phase (Hp)	240V	3	5	7.5	10	15	20	20	25	30	30
	460V	5	7.5	10	15	20	25	30	40	40	50
	600V	5	7.5	10	15	20	25	30	40	40	50
UL Power Rating 1 Phase (Hp)	120V	0.5	0.75	1	2	3	3	5	5	7.5	7.5
	240V	1	2	3	5	5	7.5	10	15	20	20
IEC Power Rating (KW)	380/400V	4	5.5	7.5	11	15	18.5	22	30	37	45
Wire Size - Inflexible	AWG	(1-2) #16-12		(1-2) #16-10		(1-2) #14-8		(1) #10-4 or (2) #12-8		(1) #8-2 or (2) #10-6	
Operations (AC-3)	Elec.	1,000,000	1,000,000	1,000,000	1,000,000	800,000	800,000	800,000	800,000	600,000	600,000
	Mech.	10,000,000	10,000,000	10,000,000	10,000,000	8,000,000	8,000,000	8,000,000	8,000,000	6,000,000	6,000,000



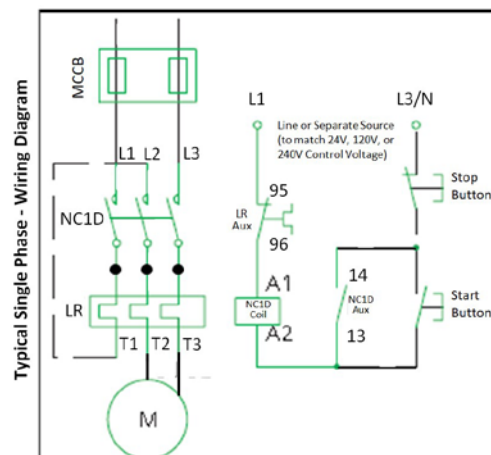
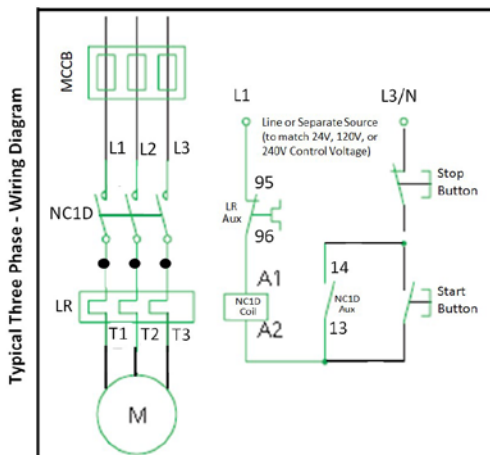
NC1D Type		NC1-D09	NC1-D12	NC1-D18	NC1-D25	NC1-D32	NC1-D40	NC1-D50	NC1-D65	NC1-D80	NC1-D95
Coil Power	Start-up (VA)	70	70	70	110	110	200	200	200	200	200
	Holding (VA)	8	8	8	11	11	20	20	20	20	20
	Power (W)	1.8 - 2.7	1.8 - 2.7	1.8 - 2.7	3 - 4	3 - 4	6 - 10	6 - 10	6 - 10	6 - 10	6 - 10
Operation Range of Rated Voltage	Pick-up Voltage	85% - 110%									
	Drop-out Voltage	20% - 75%									

F115 - F400 Sizes



Series F Type		F115	F150	F185	F265	F330	F400
Thermal Current Ith (AC-1) Amps	660V	200	200	275	315	380	450
Inductive Current IEC (AC-3) Amps	400V	115	150	185	265	330	400
UL Power Rating (Hp)	240V	40	50	60	100	125	150
	460V	75	100	100	150	200	250
	600V	75	100	100	150	200	300
IEC Power Rating (KW)	400V	55	75	90	132	160	200
Operations	Elec.	1,200,000	1,200,000	1,000,000	800,000	800,000	800,000
	Mech.	10,000,000	10,000,000	6,000,000	6,000,000	6,000,000	6,000,000

Series F Type		F115	F150	F185	F265	F330	F400
Coil Power	Start-up (VA)	660	660	966	840	1500	1500
	Holding (VA)	60	60	75	100	10	20
Operation Range of Rated Voltage	Pick-up Voltage	85% - 110%					
	Drop-out Voltage	20% - 75%					





US Breaker Contactor Cross References



NC1 D09-D18



NC1 D25-D32



NC1 D40-D65



NC1 D80-D95



F185

3P Contactors - Allen Bradley 100, Cutler Hammer CE & ABB A-Line

US Breaker Brand Part #	Price Each	Aux		Hp (3-phase)		Dim (in) (H x W x D)	Type	Contactor Cross Reference (Similar Designs)				
		NO	NC	240V	460V			Allen Bradley 100-C	Allen Bradley 100-A	Cutler Hammer CE	ABB	
NC1D0910 - V__	\$14.94	1	0	3	5	3.0 x 1.9 x 3.2	DIN Rail or Base Mount	100-C09*10	100-A09ND3 ²⁾	CE15ANS3	A9-30-10	
NC1D0901 - V__	\$14.94	0	1	3	5	3.0 x 1.9 x 3.2		100-C09*01	-	-	A9-30-01	
NC1D1210 - V__	\$16.56	1	0	5	7.5	3.0 x 1.9 x 3.2		100-C12*10	100-A12ND3 ²⁾	CE15GNS3 / CE15CNS3	A12-30-10	
NC1D1201 - V__	\$16.56	0	1	5	7.5	3.0 x 1.9 x 3.2		100-C12*01	-	-	A12-30-01	
NC1D1810 - V__	\$20.95	1	0	7.5	10	3.0 x 1.9 x 3.4		100-C16*10	100-A18ND3 ²⁾	CE15DNS3	A16-30-10	
NC1D1801 - V__	\$20.95	0	1	7.5	10	3.0 x 1.9 x 3.4		100-C16*01	-	-	A16-30-01	
NC1D2510 - V__	\$25.19	1	0	10	15	3.4 x 2.2 x 3.7		100-C23*10	100-A24ND3 ²⁾	CE15ENS3	A26-30-10	
NC1D2501 - V__	\$25.19	0	1	10	15	3.4 x 2.2 x 3.7		100-C23*01	-	-	A26-30-01	
NC1D3210 - V__	\$35.94	1	0	15	20	3.4 x 2.2 x 3.9		100-C30*10	100-A30N*3	CE15FNS3	A30-30-10	
NC1D4011 - V__	\$48.64	1	1	20	25	5.1 x 3.0 x 4.6		100-C37*00 (or *10)	100-A38N*3	CE15GNS3	A40-30-10	
NC1D5011 - V__	\$59.53	1	1	20	30	5.1 x 3.0 x 4.6		100-C43*00 (or *10)	100-A45N*3	CE15HNS3	A50-30-11	
NC1D6511 - V__	\$67.02	1	1	25	40	5.1 x 3.0 x 4.6		100-C60*00 (or *10)	100-A60N*3	CE15JNS3	A63-30-11	
NC1D8011 - V__	\$83.94	1	1	30	40	5.1 x 3.4 x 5.0		100-C72*00 (or *10)	100-A75N*3	CE15KNS3	A75-30-11	
NC1D9511 - V__	\$109.28	1	1	30	50	5.1 x 3.4 x 5.0		100-C85*00 (or *10)	-	CE15LN3	A95-30	
F115 P3 V__	\$161.00	-	-	40	75	6.4 x 6.6 x 6.8		Base Mount	100-D115	100-B110N*3 ¹⁾	CE15MN3 ^{1,3)}	AF116-30 ¹⁾
F150 P3 V__	\$269.41	-	-	50	100	6.7 x 6.6 x 6.8			100-D140	-	CE15NN3 ^{1,3)}	AF140-30 ¹⁾
F185 P3 V__	\$382.32	-	-	60	100	6.9 x 6.7 x 7.2	100-D180		100-B180N*3 ¹⁾	CE15PN3 ^{1,3)}	AF146-30 ¹⁾	
F265-P3-V__	\$475.10	-	-	100	150	8.0 x 8.0 x 8.5	100-D210 or 100-D250		100-B250N*3 ¹⁾	CE15RN3 ^{1,3)}	AF205-30 ¹⁾	
F330-P3-V__	\$533.79	-	-	125	200	8.2 x 8.5 x 8.7	100-D300		100-B300N*3 ¹⁾	CE15SN3 ^{1,3)}	AF265-30 ¹⁾	
F400 P3 V__	\$638.40	-	-	150	250	8.2 x 8.5 x 8.7	-		100-B400N*3 ¹⁾	CE15TN3 ^{1,3)}	AF305-30 ¹⁾	

Insert the AC control coil voltage of 24, 120 or 240 (example: NC1D0910-V120 replaces Allen Bradley's 100-C09*10 with a 120V control coil)

3P Contactors - Sprecher & Schuh, Telemecanique LC1 & Siemens 3TF

US Breaker Brand Part #	Price Each	Aux		Hp (3-phase)		Dim (in) (H x W x D)	Type	Contactor Cross Reference (Similar Designs)				
		NO	NC	240V	460V			Sprecher & Schuh CA3	Telemecanique LC1	Telemecanique LC1	Siemens 3TF	
NC1D0910 - V__	\$14.94	1	0	3	5	3.0 x 1.9 x 3.2	DIN Rail or Base Mount	CA3-9 -10	LC1 D09 10	LC1-D093 . A65	3TF40 10-0A	
NC1D0901 - V__	\$14.94	0	1	3	5	3.0 x 1.9 x 3.2		CA3-9 -01	LC1 D09 01	LC1-D099 . A65	3TF40 01-0A	
NC1D1210 - V__	\$16.56	1	0	5	7.5	3.0 x 1.9 x 3.2		CA3-12 -10	LC1 D12 10	LC1-D123 . A65	3TF41 10-0A	
NC1D1201 - V__	\$16.56	0	1	5	7.5	3.0 x 1.9 x 3.2		CA3-12 -01	LC1 D12 01	LC1-D129 . A65	3TF41 01-0A	
NC1D1810 - V__	\$20.95	1	0	7.5	10	3.0 x 1.9 x 3.4		CA3-16 -10	LC1 D18 10	LC1-D173 . A65	3TF42 10-0A	
NC1D1801 - V__	\$20.95	0	1	7.5	10	3.0 x 1.9 x 3.4		CA3-16 -01	LC1 D18 01	LC1-D179 . A65	3TF42 01-0A	
NC1D2510 - V__	\$25.19	1	0	10	15	3.4 x 2.2 x 3.7		CA3-23 -10	LC1 D25 10	LC1-D253 . A65	3TF43 10-0A	
NC1D2501 - V__	\$25.19	0	1	10	15	3.4 x 2.2 x 3.7		CA3-23 -01	LC1 D25 01	LC1-D259 . A65	3TF43 01-0A	
NC1D3210 - V__	\$35.94	1	0	15	20	3.4 x 2.2 x 3.9		CA3-30 -10	LC1 D32 10	LC1-D323 . A65	3TF44 11-0A ¹⁾	
NC1D4011 - V__	\$48.64	1	1	20	25	5.1 x 3.0 x 4.6		CA3-37 -N-11	LC1 D40 11	LC1-D403	3TF45 11-0A	
NC1D5011 - V__	\$59.53	1	1	20	30	5.1 x 3.0 x 4.6		CA3-43 -N-11	LC1 D50 11	LC1-D503	3TF46 11-0A	
NC1D6511 - V__	\$67.02	1	1	25	40	5.1 x 3.0 x 4.6		CA3-60 -N-11	LC1 D65 11	LC1-D633	3TF47 11-0A	
NC1D8011 - V__	\$83.94	1	1	30	40	5.1 x 3.4 x 5.0		CA3-72 -N-11	LC1 D80 11	LC1-D803	-	
NC1D9511 - V__	\$109.28	1	1	30	50	5.1 x 3.4 x 5.0		-	LC1 D95 11	-	3TF48 11-0A	
F115 P3 V__	\$161.00	-	-	40	75	6.4 x 6.6 x 6.8		Base Mount	-	LC1F115	LC1FF43	3TF50 ^{1,3)}
F150 P3 V__	\$269.41	-	-	50	100	6.7 x 6.6 x 6.8			-	LC1F150	-	3TF51 ¹⁾
F185 P3 V__	\$382.32	-	-	60	100	6.9 x 6.7 x 7.2	-		LC1F185	LC1FG43	3TF52 ¹⁾	
F265-P3-V__	\$475.10	-	-	100	150	8.0 x 8.0 x 8.5	-		LC1F265	LC1FH43	3TF53 ¹⁾	
F330-P3-V__	\$533.79	-	-	125	200	8.2 x 8.5 x 8.7	-		LC1F330	-	3TF55 ¹⁾	
F400 P3 V__	\$638.40	-	-	150	250	8.2 x 8.5 x 8.7	-		LC1F400	LC1FJ43	3TF56 ¹⁾	

Insert the AC control coil voltage of 24, 120 or 240 (example: NC1D0910-V120 replaces Telemecanique's LC1D0910 with a 120V control coil)

1) Add an additional NC-F4-11 or NC-F4-22 if auxiliary contacts are required for cross references to US Breaker's F115 thru F400 contactors.

Add an additional NC-F4-11 for cross references to Siemens 3TF44 11-0A if the Normally Closed auxiliary contact is used.

2) Allen Bradley 100-A09 thru -A24 include a fully rated 4th pole. US Breaker's cross ref includes a standard auxiliary rated contact. See the NC1D1204 or NC1D2504 for a fully rated 4th pole.

3) US Breaker F115 - F400 contactors are supplied with bus extensions (without lugs) as standard.



US Breaker Brand Overload Relays for NC1D Contactors (Square D Telemecanique LR2 Replacement Cross Ref)

- ✓ UL Listed (US & CAN) File E342546, IEC 60947, and CE Marked
- ✓ Class 10 Ambient Compensated Overload with Phase Loss Protection
- ✓ Direct Mounts to NC1 Contactor or Individual Mounting Bracket
- ✓ Includes 1NO/1NC Auxiliary Contact
- ✓ Adjustable Amperage Ranges with Automatic and Manual Reset



Overload Relays - For NC1 D09 - D32 Contactors - 0.63 to 32 Amps



LR25



LR36

US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Price Each
	Direct	Similar		
LR 25 A01	LR2 D1305	LRD05	.63-1.0A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A1x6	LR2 D1306	LRD06	1.0-1.6A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A2x5	LR2 D1307	LRD07	1.6-2.5A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A04	LR2 D1308	LRD08	2.5-4A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A06	LR2 D1310	LRD10	4-6A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A08	LR2 D1312	LRD12	5.5-8A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A10	LR2 D1314	LRD14	7-10A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$20.94
LR 25 A13	LR2 D1316	LRD16	9-13A Adjustable Overload Mounts to NC1- D09, D12, D18, D25 or D32 Contactor	\$21.80
LR 25 A18	LR2 D1321	LRD21	12-18A Adjustable Overload Mounts to NC1- D12, D18, D25 or D32 Contactor	\$21.80
LR 25 A25	LR2 D1322	LRD22	17-25A Adjustable Overload Mounts to NC1- D18, D25 or D32 Contactor	\$21.80
LR 36 A32	LR2 D2353	LRD32	23-32A Adjustable Overload Mounts to NC1-D32 Contactor	\$27.38

Overload Relays - For NC1 D40 - D95 Contactors - 23 to 93 Amps



LR93

US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Price Each
	Direct	Direct		
LR 93 A32	LR2 D3353	LRD3353	23-32A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$41.23
LR 93 A40	LR2 D3355	LRD3355	30-40A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$41.23
LR 93 A50	LR2 D3357	LRD3357	37-50A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$41.23
LR 93 A65	LR2 D3359	LRD3359	48-65A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$45.22
LR 93 A70	LR2 D3361	LRD3361	55-70A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$45.22
LR 93 A80	LR2 D3363	LRD3363	63-80A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$45.22
LR 93 A93	-	-	80-93A Adjustable Overload Mounts to NC1- D40,, D50, D65, D80, D95 Contactor	\$47.59

Overload Relay Individual Mounting Adapters 0.63 to 93A

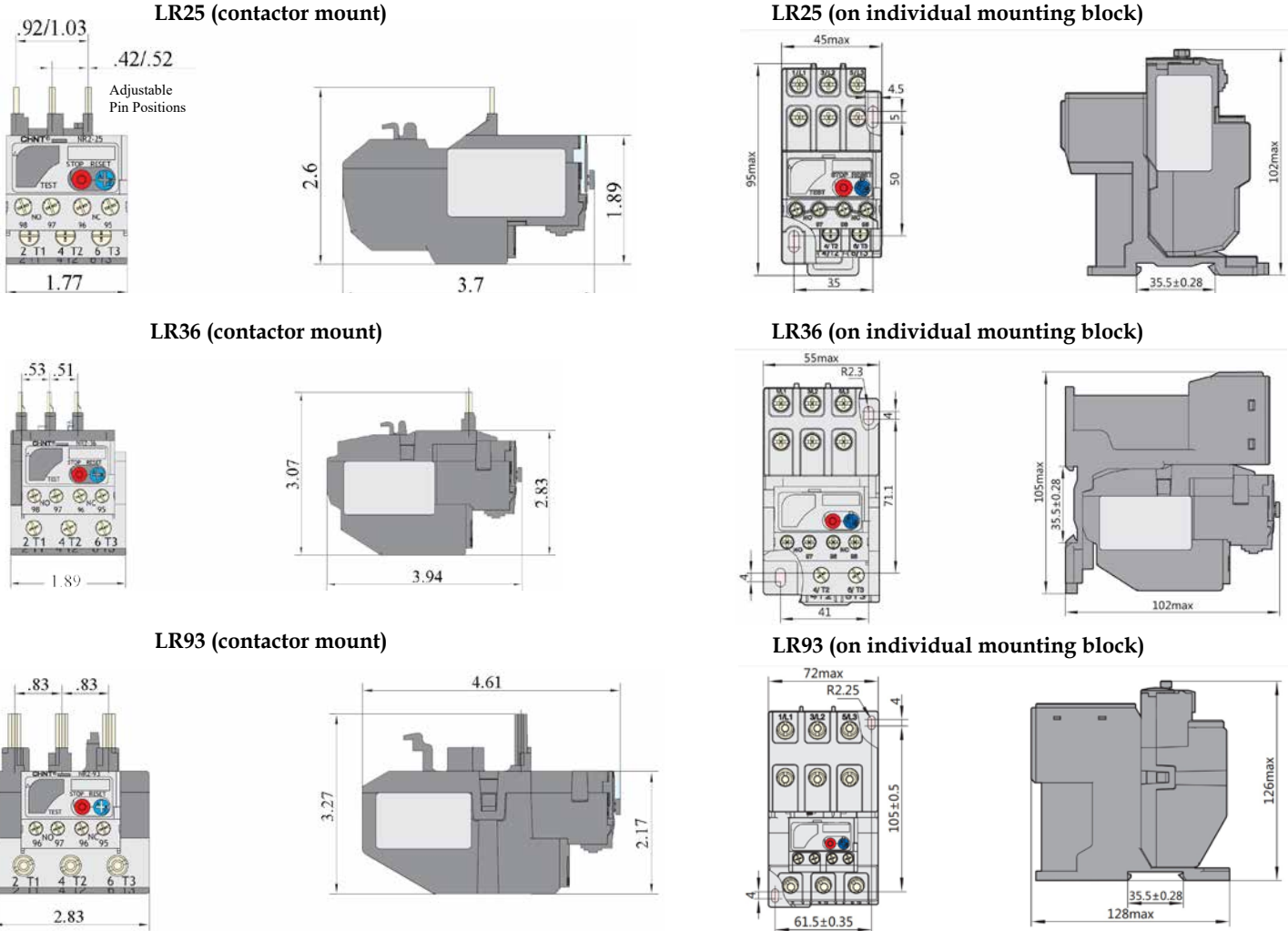


US Breaker- Brand Part #	Telemecanique Cross Reference		Description	Price Each
	Direct	Similar		
LR D13	LA7D1064	-	LR 25 Overload Relay Base for Individual DIN Rail Mounting all LR25 Overloads	\$7.46
LR D23	LA7D2064	-	LR 36 Overload Relay Base for Individual DIN Rail Mounting all LR36 Overloads	\$12.49
LR D33	LA7D3064	-	LR 93 Overload Relay Base for Individual DIN Rail Mounting all LR93 Overloads	\$18.89

- Manufacturer cross references are provided to assist product selection. Proper engineering evaluation is required for each customer application.
- Series LR overload relays are intended and UL listed for use with NC1D & Series F family contactors.



Overload Relay Dimensions (in.)



Operation

Pin Adjustment:
 - Click to align different sized contactors

Stop:
 - The NC aux opens while pressed then resumes position
 - The NO aux does not change

Reset:
 - Out for manual reset
 - Push in & twist holds the button in for auto reset

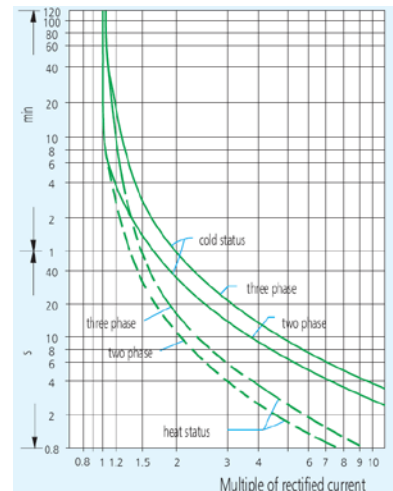
Amperage Adjustment:
 (behind window)

Test Button (behind window):
 - Push until it clicks
 - NO aux has continuity
 - NC aux is open
 - Reset resumes normal function

Normally Open Aux:
 - No continuity in its natural state

Normally Closed Aux:
 - Has continuity in its natural state

Overload Protection Curve





Contactor & Overload Selection Data

Motor Application - Sizing & Selection by Hp

208V 3 Phase Motor

Hp	Amps (FLA)	US Breaker Contactor	US Breaker Overload Relay (Adjustable)
1/2	2.4	NC1D0910-V__	LR-25-A04 (2.5-4 A)
3/4	3.5	NC1D0910-V__	LR-25-A04 (2.5-4 A)
1	4.6	NC1D0910-V__	LR-25-A06 (4-6 A)
1 1/2	6.6	NC1D0910-V__	LR-25-A08 (5.5-8 A)
2	7.5	NC1D0910-V__	LR-25-A10 (7-10 A)
3	10.6	NC1D1210-V__	LR-25-A13 (9-13 A)
5	16.7	NC1D1810-V__	LR-25-A18 (12-18 A)
7 1/2	24.2	NC1D3210-V__	LR-36-A32 (23-32 A)
10	30.8	NC1D4011-V__	LR-93-A40 (30-40 A)
15	46.2	NC1D5011-V__	LR-93-A50 (37-50 A)
20	59.4	NC1D6511-V__	LR-93-A65 (48-65 A)
25	74.8	NC1D8011-V__	LR-93-A80 (63-80 A)
30	88	NC1D9511-V__	LR-93-A93 (80-93 A)

└─ Insert the AC control coil voltage of 24, 120 or 240 (example: NC1D0910-V120) ─┘

230V 3 Phase Motor

Hp	Amps (FLA)	US Breaker Contactor	US Breaker Overload Relay (Adjustable)
1/2	2.2	NC1D0910-V__	LR-25-A2x5 (1.6-2.5 A)
3/4	3.2	NC1D0910-V__	LR-25-A04 (2.5-4 A)
1	4.2	NC1D0910-V__	LR-25-A06 (4-6 A)
1 1/2	6.0	NC1D0910-V__	LR-25-A08 (5.5-8 A)
2	6.8	NC1D0910-V__	LR-25-A08 (5.5-8 A)
3	9.6	NC1D1210-V__	LR-25-A13 (9-13 A)
5	15.2	NC1D1810-V__	LR-25-A18 (12-18 A)
7 1/2	22	NC1D2510-V__	LR-25-A25 (17-25 A)
10	28	NC1D3210-V__	LR-36-A32 (23-32 A)
15	42	NC1D5011-V__	LR-93-A50 (37-50 A)
20	54	NC1D6511-V__	LR-93-A65 (48-65 A)
25	68	NC1D8011-V__	LR-93-A80 (63-80 A)
30	80	NC1D9511-V__	LR-93-A93 (80-93 A)

460V 3 Phase Motor

Hp	Amps (FLA)	US Breaker Contactor	US Breaker Overload Relay (Adjustable)
1/2	1.1	NC1D0910-V__	LR-25-A1x6 (1-1.6 A)
3/4	1.6	NC1D0910-V__	LR-25-2x5 (1.6-2.5 A)
1	2.1	NC1D0910-V__	LR-25-A2x5 (1.6-2.5 A)
1 1/2	3.0	NC1D0910-V__	LR-25-A04 (2.5-4 A)
2	3.4	NC1D0910-V__	LR-25-A04 (2.5-4 A)
3	4.8	NC1D0910-V__	LR-25-A06 (4-6 A)
5	7.6	NC1D0910-V__	LR-25-A10 (7-10 A)
7 1/2	11	NC1D1210-V__	LR-25-A13 (9-13 A)
10	14	NC1D1810-V__	LR-25-A18 (12-18 A)
15	21	NC1D2510-V__	LR-25-A25 (17-25 A)
20	27	NC1D3210-V__	LR-36-A32 (23-32 A)
25	34	NC1D4011-V__	LR-93-A40 (30-40 A)
30	40	NC1D5011-V__	LR-93-A50 (37-50 A)
40	52	NC1D6511-V__	LR-93-A65 (48-65A)
50	65	NC1D9511-V__	LR-93-A80 (63-80A)
60	77	F115-P3-V__	LR-93-A93 (80- 93A)+LRD33-

└─ Insert the AC control coil voltage

115V Single Phase Motors

Hp	Amps (FLA)	US Breaker Contactor	US Breaker Overload Relay (Adjustable) ⁽¹⁾
1/2	9.8	NC1D1210-V__	LR-25-A13 (9-13 A)
3/4	13.8	NC1D1810-V__	LR-25-A18 (12-18 A)
1	16	NC1D1810-V__	LR-25-A18 (12-18 A)
1 1/2	20	NC1D2510-V__	LR-25-A25 (17-25 A)
2	24	NC1D3210-V__	LR-36-A32 (23-32 A)
3	34	NC1D4011-V__	LR-93-A40 (30-40 A)
5	56	NC1D6511-V__	LR-93-A65 (48-65A)
7.5	80	NC1D9511-V__	LR-93-A93 (80-93A)

└─ Insert the AC control coil voltage

230V Single Phase Motors

Hp	Amps (FLA)	US Breaker Contactor	US Breaker Overload Relay (Adjustable) ⁽¹⁾
3/4	6.9	NC1D0910-V__	LR-25-A08 (5.5-8 A)
1	8	NC1D1210-V__	LR-25-A10 (7-10 A)
2	12	NC1D1810-V__	LR-25-A18 (12-18 A)
3	17	NC1D2510-V__	LR-25-A25 (17-25 A)
5	28	NC1D3210-V__	LR-36-A32 (23-32 A)
7.5	40	NC1D5011-V__	LR-93-A50 (37-50 A)
10	50	NC1D6511-V__	LR-93-A65 (48-65A)

└─ Insert the AC control coil voltage

Circuit Breaker Amperage for Motor Short Circuit Protection

- US Breaker C60X, E, H, J, D or L frame thermal-magnetic (inverse time) breakers

250% of motor full load amps max

Single phase motor

AC polyphase other than wound rotor

Squirrel cage motor

Synchronous motor (200% max if low torque/ speed unloaded start-up)

150% of motor full load amps max

Wound rotor motor

DC (constant voltage) motor

1) 3 phase FLA values are based on NEC Table 430.250 (2020) for induction type squirrel cage & wound rotor motors. Single phase are based on NEC 430.248. Circuit breaker sizing is based on NEC Table 430.52 (2020). See NEC 430.54 for exceptions.

2) US Breaker LR overloads include single phase protection. For single phase motors, loop the 1st pole/ phase back up and through the 2nd pole to balance the load.



Motor Control Typical Wiring Diagrams



NC1 D09-D18



NC1 D25-D32



NC1 D40-D65



NC1 D80-D95



F185



LR25

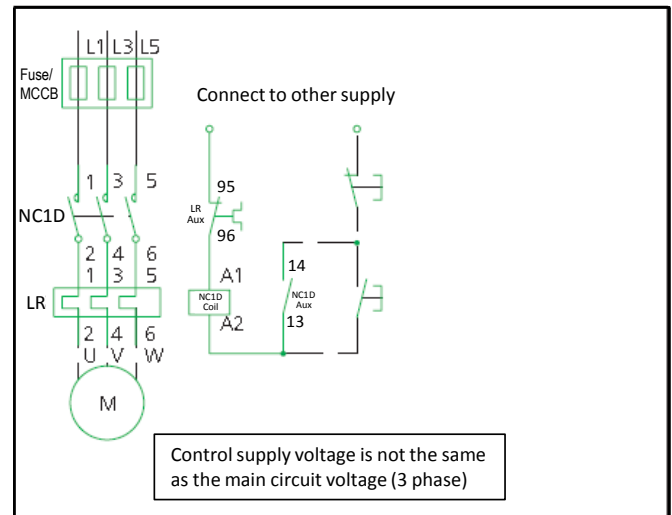
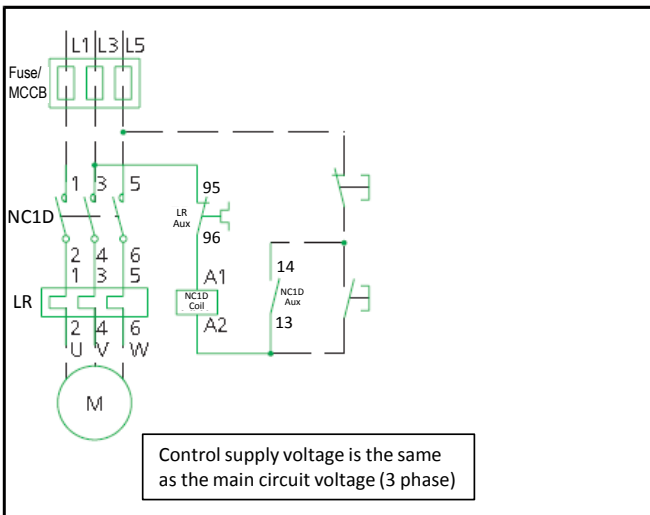


LR36

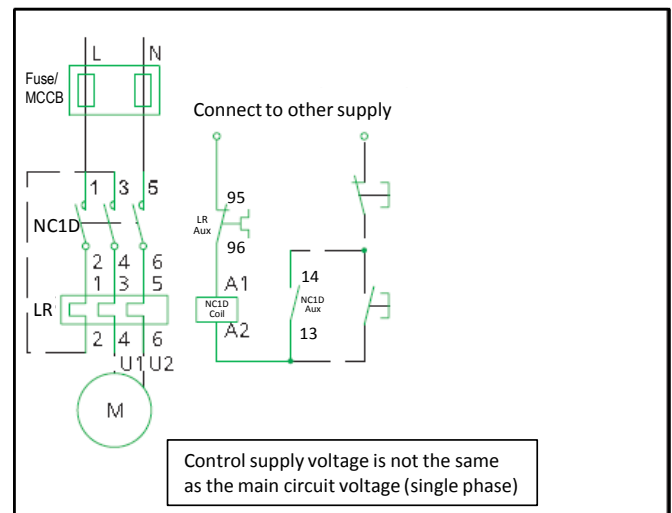
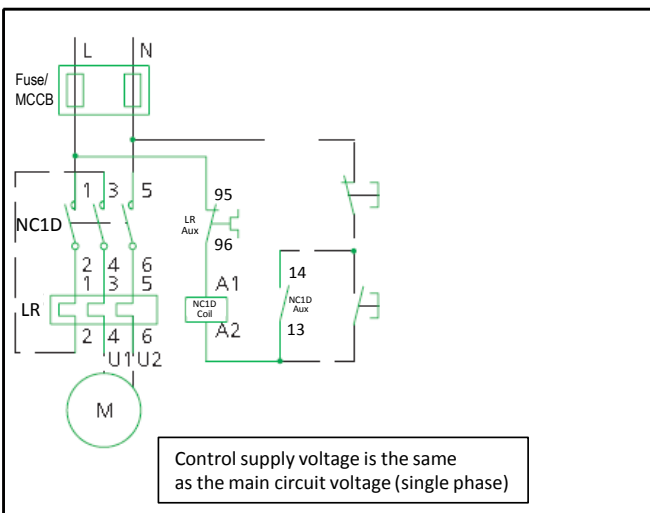


LR93

Three Phase - Wiring Diagram



Single Phase - Wiring Diagram





DIN Rail
UL489 & UL1077



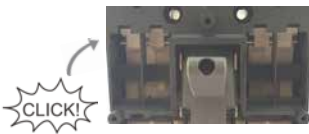
15 - 600 Amp

Superior UL489 Breakers (Square D Mounting Holes)

Safety Minded Isolated Current Chambers Use Double Break Technology to Reduce Let-Thru Current in a Fault



Click-In-Place Field Installable Accessories Save on Inventory



Global Certifications in One Product (UL File # E481916)



Adjustable Amperage Reduces Inventory & Improves Coordination



Compact Size and Interchangeable Mounting with Many Square D Frames



Highly Reliable UL489 Listed Cutting Edge Design Backed by a 2 Year Warranty



Flexible Mounting Options Allow Any Position Forward or Reverse Feed

