

Deca green, enriching Deca family

Deca conventional contactors 9 to 150 A, for motor control and other applications.

Deca green delivers a consistent low consumption range of contactors from 9 A to 80 A, covering control voltage from 24 to 250 V, with same coils for AC and DC.



When implemented with other Schneider Electric products*, Deca green contactors are part of a comprehensive solution that is ideal for all types of industrial machines and processes.



Deca Overload relay

By combining a Deca green contactor with our new Deca electronic overload relay, you will have less heat generation, and further reduce energy consumption.



* such as PLC I/O type M580, M340, M221 or M241 or extended I/O type Advantys STB range, or in association with Deca electronic overload relays or Tera Motor management system.

TeSys Control

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Introduction



Highly competitive coil consumption

Small changes can generate big savings. The new Deca green contactor is equipped with an innovative electronic coil. These electronic-coil contactors require **up to 80 % less energy** than electro-mechanical contactors. This innovation results in concrete values: for example, large plants can noticeably reduce their energy bills and heat dissipation in cabinet.

Available in



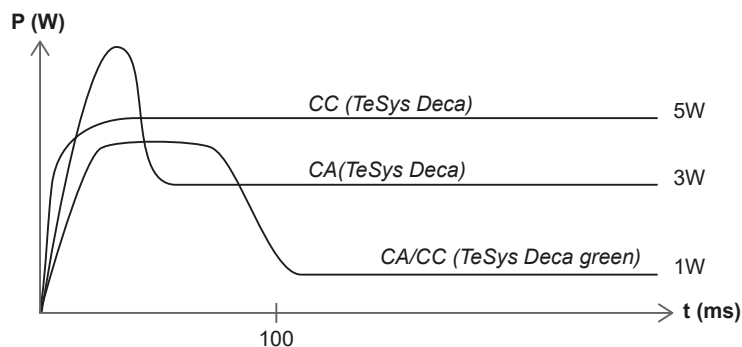
09-12-18 A

25-32-38 A

40-50-65-80 A

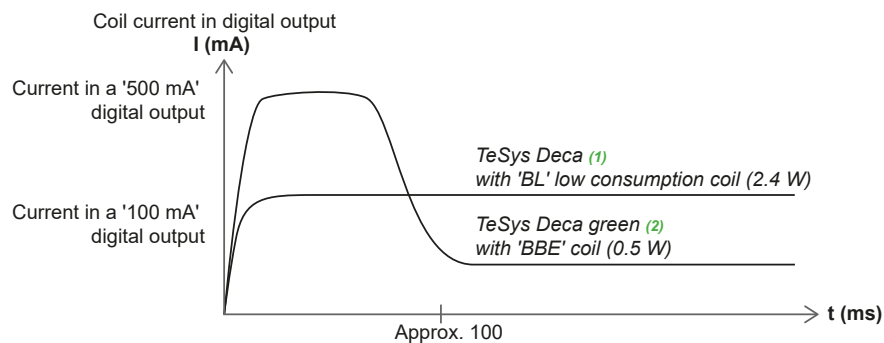
Coil currents comparison

Deca green contactors (AC/DC coil) vs Deca contactors (AC, DC coils)



Deca green brings a significant reduction of energy consumption.

Deca green contactors ("BBE" coil) vs Deca contactors (low consumption "BL" coil)



(1) Up to 38 A.
(2) 40 to 80 A.

Deca green contactor is well adapted to direct control by PLC static outputs, even in its high ratings.

Deca green contactors - Coordination with PLC output modules
(static/relay/triac)

Selection of PLC coordinated contactors

Laboratory tests have been carried out in order to validate trouble free contactor closings and openings with different PLC output modules.

The coil must be defined according to the contactor rating range and output module.
See selection table below.

The PLC your are using				>>>	Compatible contactors ⁽¹⁾	Coil code
PLC type	Output type	Output I (A)	Output module commercial reference			
M221 / M241 / M251	Static output: 24 V DC	0.5	TM3DQ8●●● and Q16●●● (T, TG, U, UG)	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	BL, BNE BBE
		0.3 (sealed) 0.8 (inrush)	TM3XTYS4	>>>	LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	BBE, BD, BNE
		0.1	TM3DQ16●● and Q32●● (TK, UK)	>>>	LC1D09●● to LC1D38●●	BL
	Relay output: 24 V DC / 230 V AC	2	TM3DQ8 and DQ16 (R, RG), TM3DM8 and DM24 (R, RG)	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	Code of any DC coil up to 24 V or any AC coil up to 230 V
M340 / M580	Static output: 24 V DC	0.5	BMXDDO1602 and DM16022	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	BL, BNE BBE
		0.1	BMXDDO3202, BMXDDM3202K, BMXDDO6402K	>>>	LC1D09●● to LC1D38●●	BL
	Relay output: 24 V DC / 230 V AC	2	BMXDRA0805 and DM16025	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	Code of any DC coil up to 24 V or any AC coil up to 230 V
	Triac output: 230 V AC	0.6	BMXDAO1605	>>>	LC1D09●● to LC1D38●●, LC1D40●●● to LC1D80A●●●, LC1DT60A●●● to LC1DT80A●●●	Code of any AC coil up to 230 V (P7 code = 230 V)
ADVANTYS	Static output: 24 V DC	0.5	STBDDO3200	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	BL, BNE BBE
	Triac output: 230 V AC	2	STBDAO8210	>>>	LC1D09●● to LC1D38●●, LC1D40A●●● to LC1D80A, LC1DT60A●●● to LC1DT80A●●●	Code of any AC coil up to 230 V (P7 code = 230 V AC)

Coils consumption characteristics

Coil type	Uc DC - min -max	Average consumption at UC DC / 20 °C	
		Inrush	Sealed
BL	24 V - 0.8 Uc to 1.1 Uc	2.4 W - 2.4 VA	2.4 W - 2.4 VA
BNE		14 W - 14 VA	0.7 W - 0.7 VA
BBE		11 W - 11 VA	0.5 W - 0.5 VA

(1) Replace dot by coil code. Ex LC1D09●● becomes LC1D09BL.

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Product references



LC1D09●●



LC1D25●●



LC1D80A●●



LC1D95●●



LC1D115●●

3-pole contactors - Motor control up to 75 kW at 400 V, in category AC-3/AC-3e

Standard power ratings of 3-phase motors 50-60 Hz in category AC-3/AC-3e (θ ≤ 60 °C)								Rated operational current in AC-3/AC-3e 440 V up to	Instantaneous auxiliary contacts		Basic reference, to be completed by adding the control voltage code ⁽¹⁾		Weight ⁽³⁾
											Fixing ⁽²⁾		
220 V	380 V	415 V	440 V	500 V	660 V	1000 V							
230 V	400 V				690 V								
kW	kW	kW	kW	kW	kW	kW	A					kg	
Connection by screw clamp terminals													
2.2	4	4	4	5.5	5.5	–	9	1	1	LC1D09●●		0.320	
3	5.5	5.5	5.5	7.5	7.5	–	12	1	1	LC1D12●●		0.325	
4	7.5	9	9	10	10	–	18	1	1	LC1D18●●		0.330	
5.5	11	11	11	15	15	–	25	1	1	LC1D25●●		0.370	
7.5	15	15	15	18.5	18.5	–	32	1	1	LC1D32●●		0.375	
9	18.5	18.5	18.5	18.5	18.5	–	38	1	1	LC1D38●●		0.380	
Power connections by EverLink® BTR screw connectors ⁽⁴⁾ and control by screw clamp terminal													
11	18.5	22	22	22	30	–	40	1	1	LC1D40A●●		0.850	
15	22	25	30	30	33	–	50	1	1	LC1D50A●●		0.855	
18.5	30	37	37	37	37	–	65	1	1	LC1D65A●●		0.860	
22	37	37	37	37	37	–	66	1	1	LC1D80A●●		0.860	
Connection by screw clamp terminals or connectors													
22	37	45	45	55	45	–	80	1	1	LC1D80●●		1.590	
25	45	45	45	55	45	–	95	1	1	LC1D95●●		1.610	
30	55	59	59	75	80	65	115	1	1	LC1D115●●		2.500	
40	75	80	80	90	100	75	150	1	1	LC1D150●●		2.500	

Connection by lugs or bars

In the references selected above, insert a figure 6 before the voltage code.

Example: LC1D09●● becomes LC1D096●●.

Separate components

Auxiliary contact blocks and add-on modules: see pages B8/37 to B8/45.

Standard control circuit voltages (for other voltages, please consult your Regional Sales Office)

a.c. supply

Volts	24	42	48	110	115	220	230	240	380	400	415	440	500
LC1D09...D150 (D115 and D150 coils with built-in suppression as standard, by bi-directional peak limiting diode).													
50/60 Hz	B7	D7	E7	F7	FE7	M7	P7	U7	Q7	V7	N7	R7	S7
LC1D09...D65 (not available with "connection for lugs or bars")													
50 Hz	B5	D5	E5				P5						
LC1D80...D115													
50 Hz	B5	D5	E5	F5	FE5	M5	P5	U5	Q5	V5	N5	R5	S5
60 Hz	B6	—	E6	F6	—	M6	—	U6	Q6	—	—	R6	—

d.c. supply

Volts	12	24	36	48	60	72	110	125	220	250	440
LC1D09...D38 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)											
U 0.7...1.25 Uc	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD	RD
LC1D40A...D65A (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)											
U 0.75...1.25 Uc	JD	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	RD
LC1D80...D95											
U 0.85...1.1 Uc	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD	RD
U 0.75...1.2 Uc	JW	BW	CW	EW	—	SW	FW	—	MW	—	—
LC1D115 and D150 (coil with built-in suppression device as standard)											
U 0.75...1.2 Uc	—	BD	—	ED	ND	SD	FD	GD	MD	UD	RD

Low consumption DC (for low consumption AC/DC: Deca green contactors, page B8/19)

Volts	5	12	20	24	48	110	220	250
LC1D09...D38 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)								
U 0.8...1.25 Uc	AL	JL	ZL	BL	EL	FL	ML	UL

For other voltages between 5 and 690 V, see pages B8/48 to B8/51.

(1) Please check the availability of your variant in the index page B8/57. The SEARCH function of your viewer can be used.

(2) LC1D09 to D80A: clip-on mounting on 35 mm rail NSYSR or screw fixing.

LC1D80 to D95: clip-on mounting on 35 mm rail NSYSR or 75 mm rail AM1DL or screw fixing.

LC1D80 to D95: clip-on mounting on 75 mm rail AM1DL or screw fixing.

LC1D115 and D150: clip-on mounting on 2 x 35 mm rails NSYSR or screw fixing.

(3) The weights indicated are for contactors with a.c. control circuit. For d.c. or low consumption control circuit, add 0.160 kg from LC1D09 to D38, 0.075 kg from LC1D40A to D80A and 1 kg for LC1D80 and D95.

(4) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference LADALLEN4, see page B8/45).

(5) For these coil voltages, choose from Deca green contactors. Same product ref. radical, just add BBE coil voltage code for 24 V DC, BNE for 24-60V AC/DC, EHE for 48-130 V AC/DC, KUE for 100-250 V AC/DC. Example: LC1D40ABBE.



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Product references



LC1D123●●



LC1D80A3●●



Contactors

3-pole contactors - Motor control up to 30 kW at 400 V, in category AC-3/AC-3e

Standard power ratings of 3-phase motors
50-60 Hz in category AC-3/AC-3e
($\theta \leq 60^\circ\text{C}$)

Rated
operational
current in
AC-3/AC-3e
440 V
up to

Instantaneous
auxiliary
contacts

Basic reference,
to be completed by adding
the control voltage code ⁽¹⁾
Fixing ⁽²⁾

220 V 380 V 415 V 440 V 500 V 660 V 1000 V
230 V 400 V 690 V

kW kW kW kW kW kW kW A

Power and control connections by spring terminals

2.2	4	4	4	5.5	5.5	9	1	1	LC1D093●●
3	5.5	5.5	5.5	7.5	7.5	12	1	1	LC1D123●●
4	7.5	9	9	10	10	18	1	1	LC1D183●●
5.5	11	11	11	15	15	25	1	1	LC1D253●●
7.5	15	15	15	18.5	18.5	32 ⁽³⁾	1	1	LC1D323●●

Power connections by EverLink® BTR screw connectors ⁽⁴⁾ and control by spring terminals

11	18.5	22	22	22	30	40	1	1	LC1D40A3●●
15	22	25	30	30	33	50	1	1	LC1D50A3●●
18.5	30	37	37	37	37	65	1	1	LC1D65A3●●
22	37	37	37	37	37	66	1	1	LC1D80A3●●

Connection by Faston connectors

These contactors are fitted with Faston connectors: 2 x 6.35 mm on the power poles and 1 x 6.35 mm on the coil and auxiliary terminals.

For contactors LC1D09 and LC1D12 only, replace the figure **3** with a **9** in the references selected above.

Example: **LC1D093●●** becomes **LC1D099●●**.

Separate components

Auxiliary contact blocks and add-on modules: see pages B8/37 to B8/45.

Standard control circuit voltages (for other voltages, please consult your Regional Sales Office)

a.c. supply

Volts 24 42 48 110 115 220 230 240 380 400 415 440

LC1D09...D80A

50/60 Hz B7 D7 E7 F7 FE7 M7 P7 U7 Q7 V7 N7 R7

d.c. supply

Volts 12 24 36 48 60 72 110 125 220 250 440

LC1D09...D32 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)

U 0.7...1.25 U_c JD BD CD ED ND SD FD GD MD UD RD

LC1D40A...D65A (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)

U 0.75...1.25 U_c JD BD CD ED ND SD FD GD MD UD RD

Low consumption

Volts 5 12 20 24 48 110 220 250

LC1D09...D32 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)

U 0.8...1.25 U_c AL JL ZL BL EL FL ML UL

For other voltages between 5 and 690 V, see pages B8/48 to B8/51.

⁽¹⁾ Please check the availability of your variant in the index page B8/57. The SEARCH function of your viewer can be used.

⁽²⁾ LC1D09 to D32: clip-on mounting on 35 mm rail NSYSDR or screw fixing.

⁽³⁾ Must be wired with 2 x 4 mm² cables in parallel on the upstream side. On the downstream side, outgoing terminal block **LAD331** may be used (Quickfit technology, see page B1/18). When wired with a single cable, the product is limited to 25 A (11 kW/400 V motors).

⁽⁴⁾ BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference **LADALLEN4**, see page B8/45).

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Product references



LC1D09●●



LC1D80A●●

For other voltages between 5 and 690 V, see pages B8/48 to B8/51.

- (1) Please check the availability of your variant in the index page B8/58. The SEARCH function of your viewer can be used.
- (2) **LC1D09 to D80A**: clip-on mounting on 35 mm rail **NSYS**DR or screw fixing.
LC1D80 and D95: clip-on mounting on 35 mm rail **NSYS**DR or 75 mm rail **AM1DL** or screw fixing.
LC1 or **LP1D80 to D95**: clip-on mounting on 75 mm rail **AM1DL** or screw fixing.
LC1D115 and D150: clip-on mounting on 2 x 35 mm rails **NSYS**DR or screw fixing.
- (3) The weights indicated are for contactors with a.c. control circuit. For d.c. or low consumption control circuit, add 0.160 kg from **LC1D09 to D38**, 0.075 kg from **LC1D40A to D80A** and 1 kg for **LC1D80 and D95**.
- (4) BTR screws: hexagon socket head. In accordance with local electrical wiring regulations, a size 4 insulated Allen key must be used (reference **LADALLEN4**, see page B8/45).
- (5) Coordination tables according to the number of operating cycles, see AC-1 curve, page A5/58.
- (6) 32 A with 2 x 4 mm² cables connected in parallel.
- (7) For these coil voltages, choose from Deca green contactors. Same product ref. radical, just add BBE coil voltage code for 24 V DC, BNE for 24-60 V AC/DC, EHE for 48-130 V AC/DC, KUE for 100-250 V AC/DC. Example: **LC1D40ABBE**.

3-pole contactors - Load control from 25 to 200 A in category AC-1

Non inductive loads maximum current ($\theta \leq 60^\circ\text{C}$) utilisation category AC-1	Number of poles	Instantaneous auxiliary contacts	Basic reference, to be completed by adding the control voltage code ⁽¹⁾	Weight ⁽³⁾
			Fixing ⁽²⁾	
A				kg
Connection by screw clamp terminals				
25	3	1	LC1D09●●	0.320
			or LC1D12●●	0.325
32	3	1	LC1D18●●	0.330
40	3	1	LC1D25●●	0.370
50	3	1	LC1D32●●	0.375
			or LC1D38●●	0.380
Connection by EverLink®, BTR screw connectors ⁽⁴⁾				
60	3	1	LC1D40A●●	0.850
80	3	1	LC1D50A●●	0.855
			or LC1D65A●● ⁽⁵⁾	0.860
			or LC1D80A●● ⁽⁵⁾	0.860
Connection by screw clamp terminals or connectors				
125	3	1	LC1D80●●	1.590
			or LC1D95●● ⁽⁶⁾	1.610
200	3	1	LC1D115●●	2.500
			or LC1D150●● ⁽⁶⁾	2.500

3-pole contactors for connection by lugs

In the references selected above, insert a figure **6** before the voltage code.
Example: **LC1D09●●** becomes **LC1D096●●**.

Standard control circuit voltages

(for other voltages, please consult your Regional Sales Office)

a.c. supply

Volts	24	42	48	110	115	220	230	240	380	400	415	440	500
LC1D09...D150 (LC1D115 and D150 coils with built-in suppression device as standard)													
50/60 Hz	B7	D7	E7	F7	FE7	M7	P7	U7	Q7	V7	N7	R7	S7
LC1D09...D65 (not available with "connection for lugs or bars")													
50 Hz	B5	D5	E5				P5						
LC1D80...D150													
50 Hz	B5	D5	E5	F5	FE5	M5	P5	U5	Q5	V5	N5	R5	S5
60 Hz	B6	—	E6	F6	—	M6	—	U6	Q6	—	—	R6	—

d.c. supply

Volts	12	24	36	48	60	72	110	125	220	250	440
LC1D09...D38 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)											
U 0.7...1.25 Uc	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD	RD
LC1D40A...D65A (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)											
U 0.75...1.25 Uc	JD	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	RD
LC1 or LP1D80 and D95											
U 0.85...1.1 Uc	JD	BD	CD	ED	ND	SD	FD	GD	MD	UD	RD
U 0.75...1.2 Uc	JW	BW	CW	EW	—	SW	FW	—	MW	—	—
LC1D115 and D150 (coils with built-in suppression device fitted as standard)											
U 0.75...1.2 Uc	—	BD	—	ED	ND	SD	FD	GD	MD	UD	RD
Low consumption											
Volts	5	12	20	24	48	110	220	250			
LC1D09...D38 (coils with integral suppression device fitted as standard, by bi-directional peak limiting diode)											
U 0.8...1.25 Uc	AL	JL	ZL	BL	EL	FL	ML	UL			