

LC1D12ABNE

Contacteur, TeSys Deca Advanced, 3P(3NO), AC-3/3e, $\leq 440\text{V}$, 12A, 24...60V AC/DC coil, snap-in terminals



Main

Range of product	TeSys Deca Advanced
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 690\text{ V AC } 25\text{...}400\text{ Hz}$
[Ie] rated operational current	12 A (at $<60\text{ }^\circ\text{C}$) at $\leq 440\text{ V AC-3}$ for power circuit 12 A (at $<60\text{ }^\circ\text{C}$) at $\leq 440\text{ V AC-3e}$ for power circuit 25 A (at $<60\text{ }^\circ\text{C}$) at $\leq 440\text{ V AC-1}$ for power circuit
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC

Complementary

Motor power kW	3 kW at 220...230 V AC 50 Hz (AC-3) 5.5 kW at 380...400 V AC 50 Hz (AC-3) 5.5 kW at 415 V AC 50 Hz (AC-3) 5.5 kW at 440 V AC 50 Hz (AC-3) 7.5 kW at 500 V AC 50 Hz (AC-3) 7.5 kW at 660...690 V AC 50 Hz (AC-3) 3 kW at 220...230 V AC 50 Hz (AC-3e) 5.5 kW at 380...400 V AC 50 Hz (AC-3e) 5.5 kW at 415 V AC 50 Hz (AC-3e) 5.5 kW at 440 V AC 50 Hz (AC-3e) 7.5 kW at 500 V AC 50 Hz (AC-3e) 7.5 kW at 660...690 V AC 50 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[I _{th}] conventional free air thermal current	25 A (at $60\text{ }^\circ\text{C}$) for power circuit 10 A (at $60\text{ }^\circ\text{C}$) for signalling circuit
Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947

[Icw] rated short-time withstand current	105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 40 A gG at ≤ 690 V coordination type 1 for power circuit 25 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2.5 MOhm - Ith 25 A 50 Hz for power circuit
Power dissipation per pole	0.36 W AC-3 0.36 W AC-3e 1.56 W AC-1
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming- to EN/ISO 13849-1
Mechanical durability	15 Mcycles
Electrical durability	2 Mcycles 21 A AC-3 at Ue ≤ 440 V 0.9 Mcycles 40 A AC-1 at Ue ≤ 440 V 2 Mcycles 21 A AC-3e at Ue ≤ 440 V
Control circuit type	AC/DC at 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	≤ 0.1 Uc (-40...70 °C):drop-out AC/DC 0.85...1.1 Uc (-40...60 °C):operational AC 0.8...1.1 Uc (-40...60 °C):operational DC 1...1.1 Uc (60...70 °C):operational AC/DC
Inrush power in VA	15 VA 50/60 Hz (at 20 °C)
Inrush power in W	14 W (at 20 °C)
Hold-in power consumption in VA	0.9 VA 50/60 Hz (at 20 °C)
Hold-in power consumption in W	0.6 W at 20 °C
Heat dissipation	0.6 W at 50/60 Hz
Operating time	45...55 ms closing 20...90 ms opening
Maximum operating rate	3600 Cyc/H at 60 °C
Connections - terminals	Control circuit: snap-in terminal 1 0.5...4 mm ² - cable stiffness: flexible without ca- ble end Control circuit: snap-in terminal 2 0.5...4 mm ² - cable stiffness: flexible without ca- ble end Control circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: flexible with ca- ble end Control circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: flexible with ca- ble end Control circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: solid without ca- ble end Control circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: solid without ca- ble end Power circuit: snap-in terminal 1 0.5...4 mm ² - cable stiffness: flexible without ca- ble end Power circuit: snap-in terminal 2 0.5...4 mm ² - cable stiffness: flexible without ca- ble end Power circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: flexible with cable end Power circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: flexible with cable end Power circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: solid without ca- ble end Power circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: solid without ca- ble end
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1

Signalling circuit frequency	25...400 Hz
Minimum switching voltage	17 V for signalling circuit
Minimum switching current	5 MA for signalling circuit
Insulation resistance	> 10 MOhm for signalling circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contact 1.5 Ms on energisation between NC and NO contact
Mounting support	Plate Rail

Environment

Standards	EN 60947-4-1 IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]CE[RETURN]UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Climatic withstand	Conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...60 °C 60...70 °C with derating
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (10 Gn for 11 ms)
Height	107 Mm
Width	45 Mm
Depth	95 Mm
Net weight	457 G

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.600 Cm
Package 1 Width	10.000 Cm
Package 1 Length	11.700 Cm
Package 1 Weight	450.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	7.470 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	128.020 Kg

Offer Sustainability

Total lifecycle Carbon footprint	9 kg CO2 eq.
Carbon footprint of the manufacturing-phase [A1 to A3]	3.092338638017083
Carbon footprint of the manufacturing-phase [A1 to A3]	3 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.11164989841781896
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.04167827012715211
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	5.091972631578948
Carbon footprint of the use phase [B2, B3, B4, B6]	5 kg CO2 eq.
Mercury free	Yes
RoHS exemption information	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.640488641824232
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	9
EU RoHS Directive	Compliant with Exemptions EU RoHS Declaration
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant By Exemption
End of life manual availability	End Of Life Information
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins