Schneider Electric LC1D12EHE

Schneider Electric TeSys Deca Green LC1D12EHE Contactor Instruction Manual

Model: LC1D12EHE

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Schneider Electric TeSys Deca Green LC1D12EHE Contactor. This device is designed for integration into control systems, primarily for motor starter applications.
The TeSys D Green contactors are engineered for reliability and performance in industrial electrical systems. Please read this manual thoroughly before proceeding with any installation or operation.

2. Product Features

- **Type:** IEC contactor, TeSys Deca Green, non-reversing.
- **Current Rating:** 12A inductive.
- **Horsepower Rating:** 7.5HP at 480VAC (3-phase).
- **Short Circuit Current Rating (SCCR):** Up to 100kA when used with appropriate protection.
- **Coil Voltage:** 48/130VAC/VDC wide band electronic coil, low consumption.
- **Auxiliary Contacts:** One normally open (NO) and one normally closed (NC) built-in (NC contact is mirror certified).
- **Mounting:** DIN rail or direct panel mounting.
- **Terminals:** Screw clamp terminals for load and auxiliary connections.
- **Certifications:** UL, CSA, IEC, CCC, EAC, Marine standards. RoHS/REACh compliant (Green Premium product).

3. Safety Information

WARNING: Risk of electric shock or explosion.

- Installation, adjustment, repair, and maintenance must be performed by qualified personnel only.
- Disconnect all power before working on the equipment.

- Always use properly rated voltage sensing devices to confirm power is off.
- Use only specified voltage for the control coil.
- Ensure proper grounding and wiring according to local and national electrical codes.
- Failure to follow these instructions can result in death, serious injury, or equipment damage.

4. Setup and Installation

The LC1D12EHE contactor can be mounted on a DIN rail or directly to a panel using screws.

4.1. Mounting

DIN Rail Mounting:

1. Ensure the DIN rail is securely fastened within the enclosure.
2. Hook the top edge of the contactor onto the DIN rail.
3. Press the bottom of the contactor firmly until it clicks into place.

Panel Mounting:

1. Identify the mounting holes on the contactor base.
2. Mark and drill appropriate holes on the panel surface.
3. Secure the contactor using screws of suitable size and length.

4.2. Wiring

Refer to the wiring diagram provided with your specific application or system. The contactor features screw clamp terminals for both power and auxiliary connections.

- **Power Terminals (1L1, 3L2, 5L3, 2T1, 4T2, 6T3):** Connect the main power circuit to these terminals. Ensure correct phase sequence for 3-phase applications.
- **Control Coil Terminals (A1, A2):** Connect the 48-130VAC/VDC control voltage to these terminals.
- **Auxiliary Contacts (13 NO, 14 NO, 21 NC, 22 NC):** Use these contacts for control circuit interlocking, signaling, or other auxiliary functions.

Always verify all connections are tight and secure before applying power.

Figure 1: Front view of the LC1D12EHE Contactor, showing main power terminals (1L1, 3L2, 5L3, 2T1, 4T2, 6T3), auxiliary contacts (13 NO, 14 NO, 21 NC, 22 NC), and coil terminals (A1, A2).

5. Operation

The TeSys Deca Green contactor is designed for switching electrical loads, primarily motors, in industrial control applications. When the appropriate control voltage (48-130VAC/VDC) is applied to the coil terminals (A1 and A2), the contactor's main contacts close, allowing power to flow to the connected load.

- **Energizing the Coil:** Applying the specified voltage to A1 and A2 will energize the coil, causing the main power contacts (1L1-2T1, 3L2-4T2, 5L3-6T3) to close. Simultaneously, the built-in auxiliary contacts will change state (NO contacts close, NC contacts open).
- **De-energizing the Coil:** Removing the voltage from A1 and A2 will de-energize the coil, causing the main power contacts to open and the auxiliary contacts to return to their original state.

Ensure the control circuit is properly designed and protected to prevent unintended operation or damage.

6. Maintenance

Regular inspection and maintenance are crucial for ensuring the long-term reliability and safe operation of the contactor.

- **Power Disconnection:** Always disconnect all power to the contactor and associated circuits before performing any maintenance.
- **Visual Inspection:** Periodically inspect the contactor for signs of wear, damage, discoloration, or loose connections. Check for dust or debris accumulation.
- **Terminal Tightness:** Verify that all screw clamp terminals are securely tightened. Loose connections can lead to overheating and component failure.
- **Contact Condition:** While the contactor is de-energized, visually inspect the main contacts for excessive pitting or erosion. Severely worn contacts may require replacement of the contactor.
- **Cleaning:** Use a dry, lint-free cloth to clean the exterior of the contactor. Do not use solvents or abrasive cleaners.

Do not attempt to repair internal components. If the contactor is damaged or malfunctioning, replace the unit.

7. Troubleshooting

This section provides guidance for common issues. For complex problems, consult a qualified electrician or Schneider Electric technical support.

Problem	Possible Cause	Solution
Contactor does not energize (coil does not pull in)	• No control voltage to A1/A2. • Incorrect control voltage. • Open circuit in control wiring. • Faulty coil.	• Verify control voltage at A1/A2. • Ensure voltage matches 48-130VAC/VDC. • Check control circuit for breaks, fuses, or tripped breakers. • Replace contactor if coil is confirmed faulty.
Contactor energizes but load does not receive power	• No main power to L1/L2/L3. • Open circuit in load wiring. • Damaged main contacts.	• Verify main power supply. • Check load circuit for breaks, fuses, or tripped breakers. • Replace contactor.
Contactor hums excessively	• Loose mounting. • Foreign object in magnet assembly. • Incorrect coil voltage.	• Tighten mounting screws. • Inspect and clean magnet assembly (with power off). • Verify coil voltage.

8. Specifications

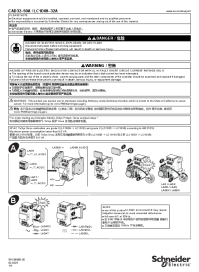
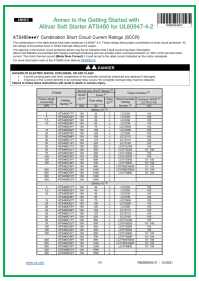
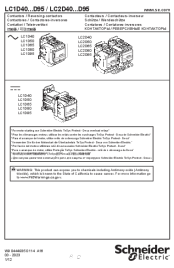
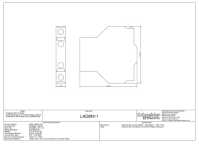
Parameter	Value

Parameter	Value
Model Number	LC1D12EHE
Brand	Schneider Electric
Contactor Type	IEC, TeSys Deca Green, Non-reversing
Current Rating (Inductive)	12A
Horsepower Rating (3-Phase)	3HP at 200-208VAC 3HP at 240VAC 7.5HP at 480VAC 10HP at 600VAC
Horsepower Rating (Single-Phase)	0.5HP at 115VAC 2HP at 240VAC
Short Circuit Current Rating (SCCR)	Up to 85kA with 480VAC up to 35A circuit breaker Up to 100kA with 600VAC 30A Class J or CC fuse
Coil Voltage	48-130VAC/VDC (Wide Band Electronic Coil)
Number of Poles	3 Phase, 3 NO (Main Contacts)
Auxiliary Contacts	1 NO (Normally Open), 1 NC (Normally Closed, mirror certified)
Terminals	Screw Clamp
Mounting	DIN Rail or Panel Mount
Dimensions (H x W x D)	3.03 inches x 1.77 inches x 3.39 inches
Weight	0.82 lbs (13.12 ounces)
Certifications	UL, CSA, IEC, CCC, EAC, Marine, RoHS/REACh (Green Premium)

9. Warranty and Support

For warranty information, please refer to the official Schneider Electric website or contact your authorized distributor. Schneider Electric products are typically covered by a standard manufacturer's warranty against defects in materials and workmanship.
For technical assistance, product support, or to locate a service center, please visit theSchneider Electric official website or contact their customer service department.

Related Documents - LC1D12EHE

	[Schneider Electric TeSys Catalog 2024: Motor Control Solutions] Explore the Schneider Electric TeSys Catalog 2024, featuring innovative and connected solutions for motor starters, control, protection, and power management. Discover a century of expertise in motor control technology.
	[Schneider Electric TeSys Deca Contactor Installation and Safety Guide] Comprehensive guide for installing and operating Schneider Electric TeSys Deca contactors (CAD32-50A, LC1D09-32A). Includes safety warnings, wiring diagrams, and technical specifications.
	[Schneider Electric TeSys Control: Contactors & Motor Starters Catalog] Explore the Schneider Electric TeSys Control catalog, featuring a wide range of SK, K, Deca, and Modular contactors, reversing contactors, and essential motor control components like circuit breakers and relays.
	[Schneider Electric ATS480 Soft Starter SCCR Ratings & Compatibility Guide] Find detailed Short Circuit Current Ratings (SCCR) and compatible component data for Schneider Electric Altivar ATS480 soft starters, tested per UL60947-4-2 for electrical system safety and performance.
	[Schneider Electric TeSys Deca Contactors LC1D and LC2D Series] Comprehensive guide to Schneider Electric TeSys Deca contactors, including LC1D and LC2D series. Covers product specifications, installation, safety warnings, and accessory compatibility.
	[LAD8N11 TeSys D IEC Contact Block - Schneider Electric Technical Specifications] Detailed technical specifications, dimensional drawing description, and manufacturer information for the Schneider Electric LAD8N11 TeSys D IEC Contact Block. This 1NO 1NC side-mount accessory is for TeSys D IEC Contactors and Control Relays.


Product data sheet
Characteristics

LC1D12EHE
TeSys D Green IEC contactor, 12 A, 3 P, 7.5 HP at 480 VAC, nonreversing, 48-130 VAC/ VDC coil

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TeSys LC1D12EHE ECAT Data SheetLC1D12EHE SCHNEIDER ELECTRIC Contactor LC1D 12 A element14 PhilippinesTeSys documentmedia distributordatasolutions schneider2 2021q1 documents 93fb21b4130ca79827dff3962d3f2f8ac8ceb4a0 |||

Product data sheet Characteristics **LC1D12EHE** TeSys D Green IEC contactor, 12 A, 3 P, 7.5 HP at 480 VAC, nonreversing, 48-130 VAC/ VDC coil Jan 13, 2021 1 The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the product...

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Fiche produit
Caractéristiques

LC1D12EHE
TeSys D - contacteur - 3P(3 NO) - AC3 - <= 440V 12A - 48 à 130Vca-cc

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Product data sheet
Characteristics

LC1D12EHE
TeSys; TeSys Deca, Contactor, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 12A, 48-130VAC/DC coil

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Product data sheet Characteristics **LC1D12EHE** TeSys; TeSys Deca, Contactor, 3P 3 NO , AC-3/AC-3e, 0 to 440V, 12A, 48-130VAC/DC coil The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This...

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Product data sheet
Characteristics

LC1D12EHE
Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 12A, 48...130V AC/DC coil, screw clamp terminals

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Product data sheet Characteristics **LC1D12EHE** Contactor, TeSys Deca, 3P 3NO , AC-3/AC-3e, =440V, 12A, 48...130V AC/DC coil, screw clamp terminals The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contain...

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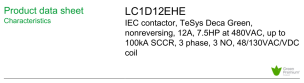
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Characteristics

LC1D12EHE
IEC contactor, TeSys Deca Green, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48/130VAC/VDC coil

[Schneider Electric LC1D12EHE TeSys Deca Green IEC Contactor - Product Data Sheet]

Detailed product data sheet for the Schneider Electric LC1D12EHE TeSys Deca Green IEC contactor, including technical specifications, characteristics, environmental data, and ordering information.

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Product data sheet
Characteristics

LC1D12EHE
IEC contactor, TeSys Deca Green, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48/130VAC/VDC coil

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Product data sheet Characteristics **LC1D12EHE** IEC contactor, TeSys Deca Green, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48/130VAC/VDC coil The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of ...

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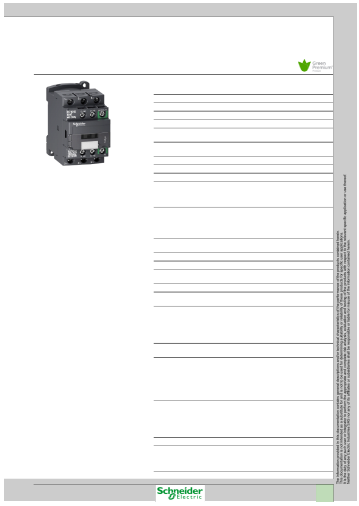

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Product Datasheet SCHNEIDER LC1D12EHE TESYS D CONTACTOR 3P AC3 pds cdn2 rexel au medias sys Aurexel sheets h1b hbb 9056422527006 |||

Product datasheet Characteristics **LC1D12EHE** TeSys D contactor - 3P - = 440 V - 12 A AC-3 48...130 V AC/DC coil Main Range TeSys Product name TeSys D Green Product or component type Contactor Device short name LC1D Contactor application Motor control Resistive load Utilisation category ...

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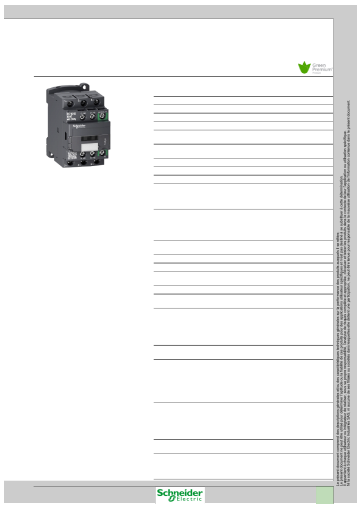

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LC1D12EHE ECAT Product Spec Sheet SQD IEC contactor TeSys Cooper Electric document media distributordatasolutions schneider synd 2023q2 documents 632200d4b0ffd971f94f29143aea74c2a63e21e9 |||

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Product data sheet Characteristics **LC1D12EHE** IEC contactor, TeSys Deca Green, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 p...

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