



The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.



## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: $\leq 690$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	80 A 140 °F (60 °C) $\leq 440$ V AC AC-1 power circuit 65 A 140 °F (60 °C) $\leq 440$ V AC AC-3 power circuit
Motor power kW	11 kW 400 V AC 50/60 Hz AC-4) 18.5 kW 220...230 V AC 50/60 Hz AC-3) 30 kW 380...400 V AC 50/60 Hz AC-3) 37 kW 500 V AC 50/60 Hz AC-3) 37 kW 660...690 V AC 50/60 Hz AC-3)
Motor power HP (UL / CSA)	40 Hp 460/480 V AC 50/60 Hz 3 phase 5 Hp 115 V AC 50/60 Hz 1 phase 10 Hp 230/240 V AC 50/60 Hz 1 phase 20 Hp 200/208 V AC 50/60 Hz 3 phase 20 Hp 230/240 V AC 50/60 Hz 3 phase 50 hp 575/600 V AC 50/60 Hz 3 phase
Control circuit type	DC standard
[Uc] control circuit voltage	48 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1000 A 440 V power circuit IEC 60947
Rated breaking capacity	1000 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	520 A 104 °F (40 °C) - 10 s power circuit 900 A 104 °F (40 °C) - 1 s power circuit 110 A 104 °F (40 °C) - 10 min power circuit 260 A 104 °F (40 °C) - 1 min 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 60947-5-1 125 A gG $\leq 690$ V type 1 power circuit 125 A gG $\leq 690$ V type 2 power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 690 V conforming to IEC 60947-4-1
Electrical durability	0.5 Mcycles 80 A AC-1 $\leq 440$ V 1.45 Mcycles 65 A AC-3 $\leq 440$ V

Power dissipation per pole	9.6 W AC-1 6.3 W AC-3
Front cover	With
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	UL GOST CCC CSA
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit lugs-ring terminals 0.65 in (16.5 mm)
Tightening torque	Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit 53.10 lbf.in (6 N.m) lugs-ring terminals hexagonal 0.39 in (10 mm) M6
Operating time	42.5...57.5 ms closing 16...24 ms opening
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	10 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 U <sub>c</sub> (-40...70 °C):drop-out DC 0.75...1.25 U <sub>c</sub> -40...140 °F (-40...60 °C) operational DC 1...1.25 U <sub>c</sub> (60...70 °C):operational DC
Time constant	34 ms
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in W	7.4 W 68 °F (20 °C)
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 current	5 mA for signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for signalling circuit
Contact compatibility	M4
Compatibility code	LC1D

## Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94

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	4.80 in (122 mm)
Maximum Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	2.06 lb(US) (0.935 kg)

### Ordering and shipping details

Category	22358 - CTR, TESYS D, OPEN, 40-65A DC
Discount Schedule	I12
GTIN	03389118329065
Nbr. of units in pkg.	1
Package weight(Lbs)	1.87 lb(US) (0.85 kg)
Returnability	No
Country of origin	FR

### Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.36 in (6 cm)
Package 1 width	5.51 in (14 cm)
Package 1 Length	5.91 in (15 cm)

### Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

### Contractual warranty

Warranty	18 months
----------	-----------