Product data sheet Characteristics

LC1D25Q7

TeSys Deca contactor - 3P(3 NO) - AC-3/ AC-3e - <= 440 V 25 A - 380 V AC coil





Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-3 AC-3e
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC
[le] rated operational current	25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
Motor power kW	5.5 KW at 220230 V AC 50/60 Hz (AC-3) 11 KW at 380400 V AC 50/60 Hz (AC-3) 11 KW at 415440 V AC 50/60 Hz (AC-3) 15 KW at 500 V AC 50/60 Hz (AC-3) 15 KW at 660690 V AC 50/60 Hz (AC-3) 5.5 KW at 400 V AC 50/60 Hz (AC-4) 5.5 KW at 220230 V AC 50/60 Hz (AC-3e) 11 KW at 380400 V AC 50/60 Hz (AC-3e) 11 KW at 415440 V AC 50/60 Hz (AC-3e) 15 KW at 500 V AC 50/60 Hz (AC-3e) 15 KW at 660690 V AC 50/60 Hz (AC-3e)
Motor power hp	3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 Hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 Hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 Hp at 200/208 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	380 V AC 50/60 Hz
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 40 A (at 60 °C) for 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	450 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand current	240 A 40 °C - 10 s for power circuit 380 A 40 °C - 1 s for power circuit 50 A 40 °C - 10 min for power circuit 120 A 40 °C - 1 min for power circuit 120 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 63 A gG at <= 690 V coordination type 1 for power circuit 40 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 MOhm - Ith 40 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 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
Electrical durability	1.65 Mcycles 25 A AC-3 at Ue <= 440 V 1.4 Mcycles 40 A AC-1 at Ue <= 440 V 1.65 Mcycles 25 A AC-3e at Ue <= 440 V
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3 1.25 W AC-3e
Protective cover	With
Mounting support	Plate Rail
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1
Product certifications	GL DNV BV LROS (Lloyds register of shipping) GOST CCC RINA CSA UL UKCA
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible without cable end
	Control circuit: screw clamp terminals 2 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm²solid without cable end Power circuit: screw clamp terminals 1 cable(s) 2.510 mm²flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 2.510 mm²flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 110 mm²flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1.56 mm²flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.510 mm²solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.510 mm²solid without cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver- pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver- pozidriv No 2

Operating time	1222 ms closing
•	419 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	15 Mcycles
Maximum operating rate	3600 Cyc/H 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	23 W at 50/60 Hz
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	25400 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 contact1.5 Ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit

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	-4060 °C 6070 °C with derating	
Ambient air temperature for storage	-6080 °C	
Operating altitude	03000 m	
Fire resistance	850 °C conforming to IEC 60695-2-1	
Mechanical robustness	Vibrations contactor open: 2 Gn, 5300 Hz Vibrations contactor closed: 4 Gn, 5300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 8 Gn for 11 ms	
Height	85 Mm	
Width	45 Mm	
Depth	92 Mm	
Net weight	0.37 Kg	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	411 G
Package 1 Height	5 Cm
Package 1 width	9.3 Cm
Package 1 Length	11.2 Cm
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Weight	8.527 Kg
Package 2 Height	15 Cm
Package 2 width	30 Cm
Package 2 Length	40 Cm



Unit Type of Package 3	P06	
Number of Units in Package 3	320	
Package 3 Weight	147.3 Kg	
Package 3 Height	80 Cm	
Package 3 width	80 Cm	
Package 3 Length	60 Cm	

Offer Sustainability

PVC free	Yes
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End Of Life Information
Environmental Disclosure	Product Environmental Profile
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	₫Yes
Mercury free	Yes
Toxic heavy metal free	Yes
EU RoHS Directive	Compliant EPEU RoHS Declaration
REACh free of SVHC	Yes
REACh Regulation	REACh Declaration
Sustainable offer status	Green Premium product

Contractual warranty Warranty

Warranty	18 months

Product Life Status : Commercialised

