

CBL-SC-230UC/31/40A - Installation contactor



1791369

<https://www.phoenixcontact.com/us/products/1791369>

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Installation contactor (Hum-free); input voltage: 230 V AC/220 V DC; contact switching type: 3 N/O contacts, 1 N/C contact; rated current: 40 A

Commercial data

Item number	1791369
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	C471
Product key	DK6441
GTIN	4067923412224
Weight per piece (including packing)	416.6 g
Weight per piece (excluding packing)	416.6 g
Customs tariff number	85371098
Country of origin	SI

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Technical data

Product properties

Product type	Installation contactor
Mechanical service life	10 ⁷ cycles

Electrical properties

Electrical service life (AC-1, AC-7a, AC-21)	100000 switching cycles
Electrical service life (AC-3, AC-3e, AC-7b, AC-23)	150000 switching cycles
Electrical service life (AC-5a)	100000 switching cycles
Electrical service life (AC-5b)	100000 switching cycles
Electrical service life (DC-1)	100000 switching cycles

Insulation characteristics: Control circuit/load circuit

Rated insulation voltage	440 V
Rated surge voltage	4 kV

Input data

Voltage	230 V AC
	220 V DC
Voltage range (AC)	195.5 V AC ... 253 V AC
Voltage range (DC)	187 V DC ... 242 V DC
Mains frequency	50/60 Hz
Response time range	15 ms ... 20 ms
Release time range	35 ms ... 45 ms
Drive and function	monostable
Power consumption	5 W

Output data

Contact switching type	3 N/O contacts
	1 N/C contact
Type of switch contact	Single contact
Minimum distance	3.6 mm (open contacts)
Fuse	≤ 60 A (Backup fuse for short-circuit protection KS according to UL and CSA)
Rated operating voltage (AC/DC)	400 V (IEC)
Rated operating voltage	480 V (UL/CSA)
Current (thermal)	40 A
Rated operating current (AC-1, AC-7a, AC-21)	40 A
Rated operating current (AC-3, AC-3e, AC-7b, AC-23)	22 A
Rated operating current (AC-5a)	20 A (230 V)
Rated operating current (AC-5b)	17.6 A (230 V)
Rated operating current (DC-1 (L/R < 1 ms), 1 pole)	40 A (24 V DC)
	25 A (48 V DC)

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	18 A (60 V DC)
	4 A (110 V DC)
	1.2 A (220 V DC)
Rated operating current (DC-1 (L/R < 1 ms), 2 poles in series)	40 A (24 V DC)
	38 A (48 V DC)
	32 A (60 V DC)
	10 A (110 V DC)
	8 A (220 V DC)
Rated operating current (DC-1 (L/R < 1 ms), 3 poles in series)	40 A (24 V DC)
	40 A (48 V DC)
	40 A (60 V DC)
	30 A (110 V DC)
	20 A (220 V DC)
Rated operating current (DC-1 (L/R < 1 ms), 4 poles in series)	40 A (24 V DC)
	40 A (48 V DC)
	40 A (60 V DC)
	40 A (110 V DC)
	40 A (220 V DC)
Rated operating power (AC-1, AC-7a, AC-21)	8.7 kW (1~, 230 V)
	16 kW (3~, 230 V)
	26 kW (3~, 400 V)
Rated operating power (AC-3, AC-3e, AC-7b, AC-23)	3.7 kW (1~, 230 V)
	5.5 kW (3~, 230 V)
	11 kW (3~, 400 V)
Mains frequency	50/60 Hz

Connection data

Coil

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	1.5 mm ² ... 2.5 mm ²
Conductor cross-section flexible	1.5 mm ² ... 2.5 mm ²
Conductor cross-section AWG	16 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm

Contact

Connection method	Screw connection
Stripping length	10 mm
Screw thread	M5
Conductor cross-section rigid	1.5 mm ² ... 25 mm ²
Conductor cross-section flexible	1.5 mm ² ... 16 mm ²
Conductor cross-section AWG (rigid)	14 ... 10
Conductor cross-section AWG (flexible)	14 ... 4

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Tightening torque	3.4 Nm ... 3.5 Nm
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Dimensions

Item dimensions

Width	53.5 mm
Height	84.4 mm
Depth	66 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 IP40 (for installation in a junction box - distribution board)
Ambient temperature (operation)	-25 °C ... 40 °C
Ambient temperature (storage/transport)	-30 °C ... 80 °C
Altitude	≤ 2000 m
Shock (operation)	switched contacts: 15g (Z-axis) and 2g (X-axis)
Shock (storage/transport)	unswitched contacts: 10g (Z-axis and X-axis)
Vibration (operation)	switched contacts: 3g (Z-axis) and 1g (X-axis)
Vibration (storage/transport)	unswitched contacts: 2g (Z-axis and X-axis)
Noise level	20 dB

Mounting

Mounting type	DIN rail mounting
Assembly note	Number of contactors or switches next to each other < 40°C: no restriction
Mounting position	vertical (DIN rail horizontal, see mounting drawing)

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Approvals

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cULus Listed

Approval ID: E228652

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Classifications

ECLASS

ECLASS-13.0	27142308
ECLASS-15.0	27142308

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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EF3.0 Climate Change

CO2e kg	2.74 kg CO2e
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