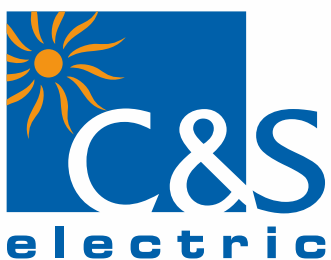
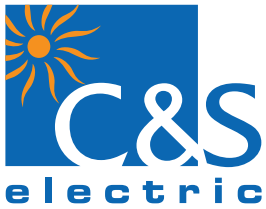


We touch
your **electricity**
everyday!



Capacitor Duty
Contactor



C&S Electric Ltd. is a leading manufacturer of electrical and electronic equipment in India. It is one of India's largest exporters of industrial switchgear & power busbar products. C&S Electric products are used in applications ranging from power generation, transmission and distribution, protection and final consumption.

C&S Electric has the following product verticals:

- LV Switchgear
- LV Switchboards
- LV & MV Busducts
- LV Bustrunking
- Protection and Measurement Devices

MANUFACTURING FACILITIES



C&S Controlgear Plant at Noida



C&S Switchgear Plant at Noida



World-Class Manufacturing Plants at SIDCUL, Haridwar

MARKET LEADER

C&S is one of the leading supplier in the LV Switchgear business segment and a market leader in the busbar business with more than 50% share in Indian market.

11 MANUFACTURING PLANTS

C&S Electric have 11 state-of-the-art manufacturing facilities in Noida, Haridwar & Guwahati, which are equipped with latest tools and systems to ensure highest level of quality and services.

600+ STOCKISTS

A dedicated network of channel partners, ensuring access to the farthest corners of India, with an obsession for customer services. In addition C&S products are available in 8000+ retail counters nationally.

EXPORTS TO OVER 85 COUNTRIES

C&S exports the entire range of products across all 7 continents, thus reaffirming its position as one of India's largest exporters of industrial electrical products.

5000+ WORKFORCE

5000+ Workforce including over 371 engineers, dedicated sales team of 424 people & millions of satisfied customers.

R&D

4 Govt. approved labs/centres, over 20,000 sqft. space dedicated to R&D, 70 R&D engineers, state of the art testing & design facilities ... & most of the all a passion for innovation & excellence.

CONTENTS

Features & Benefits	5
Operating Principal	6
Technical Specifications	7-8
Ordering Information	9
Dimensional Drawings	10

Quality Assurance

BSCIC
Certificate
 ENVIRONMENTAL MANAGEMENT SYSTEM

This is to certify that:
C&S ELECTRIC LIMITED
 C-58 & C-60 PHASE II, DIST. GAUTAM BUDDH NAGAR
 NOIDA - 201 305, UTTAR PRADESH, INDIA

Sites as mentioned in the Appendix accompanying this certificate

Subsequent to the Assessment of the organization, it has been found that the organization complies with the requirements of
ISO 14001:2015
 For the following scope:
According to the Scope

Originally Registered:
 Issue Date: _____
 Expiry Date: _____

For BSCIC CERTIFICATIONS PVT.LTD.
 Managing Director

Registered

BSCIC
Certificate
 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM

This is to certify that:
C&S ELECTRIC LIMITED
 C-58 & C-60 PHASE II, DIST. GAUTAM BUDDH NAGAR
 NOIDA - 201 305, UTTAR PRADESH, INDIA

Sites as mentioned in the Appendix accompanying this certificate

Reference No: **BN20852/19718**
 It has been found to be operating an Occupational Health & Safety Management System of
45001:2018
 for the following scope:
As Stated in Appendix I

Surveillance Dates:
 1st Surveillance Due on: 07-Dec-2022
 2nd Surveillance Due on: 07-Dec-2023

Audit is not allowed to be conducted; this Certificate shall be suspended/withdrawn.

Version No. 1

BSCIC **JAS-ANZ** **IAF**

DNV
MANAGEMENT SYSTEM
CERTIFICATE

Certificate No: 204881-2019-AQ-IND-UKAS
 Initial certification date: 23 September 1984
 Valid: 11 June 2021 - 19 June 2024

This is to certify that the management system of
C&S Electric Limited
 C-58, Phase-II, Noida - 201 305, Uttar Pradesh, India
 and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
 Design, development, manufacturing, marketing & servicing of contactors, motor starters, distribution board, push button, pilot lamp and control devices, overload relays and their accessories

For Issuing Office:
 DNV - Business Assurance
 Global, No. 40, 53rd Street, Aliso Viejo, CA 92615, USA

UKAS **IAF**

0013

Managing Director

Link of Evidence of Conformity as set out in the Certification Agreement may be used in the Certificate model.
 ©2020 DNV Business Assurance (UK) Limited, 40 Floor, York Building, 20 Stratford Street, London, EC1Y 4SA, United Kingdom - TEL: +44 (0) 20 714 2000 www.dnv.com

CERTIFIED COMPANY
ISO 14001:2015

CERTIFIED COMPANY
ISO 9001:2015

CERTIFIED COMPANY
ISO 45001:2018

Features

- Excellent damping of In-rush Current
- Saves energy and reduced watt loss during ON condition.
- Capacitor Bank Switching in parallel without de-rating
- Enhanced equipment life
- Low maintenance & down-time
- Power quality improvement
- Common accessories with exceed / robusTa contactors except Add ON blocks.

Benefits



The Solution to switch on Power Capacitors depending upon the amount of Reactive Power required.



Easy to handle and maintain



Cost Effective



Availability of wide range of Capacitor Duty Contactor



Safe, Reliable and Simple





Product Range

Range	2.5kVAr~100kVAr, 415VAC, 50/60Hz
No. of Poles	3
Conforms	IEC60947-4-1AC-6b utilization category

Capacitor Duty Contactor is specially designed for Capacitor Switching applications. It is required due to the following factors:

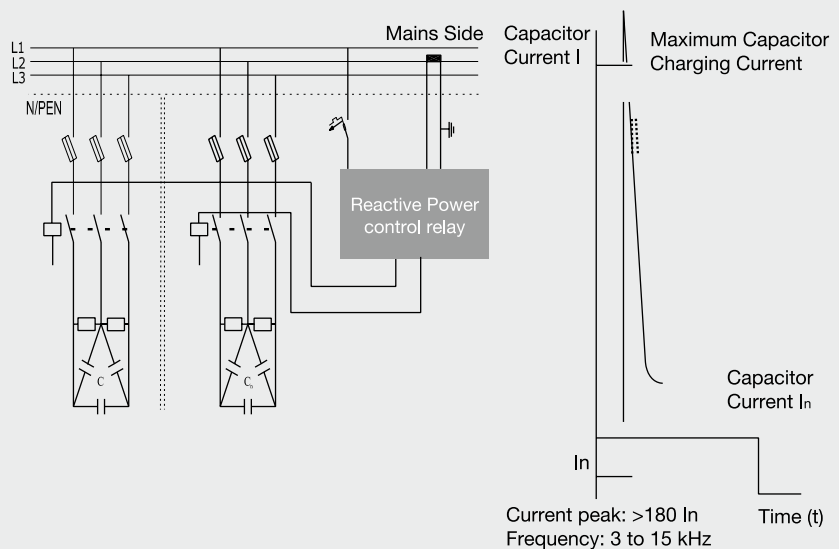
- Network inductances
- Transformer power and short circuit voltage
- Type of power factor correction : fixed or automatic
- Harmonics present in the system

Contactor for capacitor bank switching must be designed to withstand:

- Permanent current that can reach 1.5time the nominal current of capacitor bank.
- Short but high peak current on pole closing.
- Selection of capacitor duty switching device requires careful product selection. It is always recommended to use dedicated Capacitor Duty Switching Contactor for switching Capacitor bank, as It optimizes the switchgear cost & enhances the equipment life.

Operating Principal

Capacitor contactor are specially designed to meet stringent requirements of capacitor switching as deliberated above. These contactors are fitted with front-mounted block of 3 early make auxiliary contact in series with quick discharge damping six-resistors-2 per phase to limit peak current to value within contactor making capacity such that normal rated capacitor current is carried by main contacts which, after closing, effectively short out the resistors.



Multi Stepped Capacitor Switching

Technical Specifications

KVR*Rating 50/60Hz $\theta \leq 55^{\circ}\text{C}(3)$			Instataneous Auxillary Contacts		Maximum Oprating Rate	Electrical Life at Rated Load	Prospective Peak Current at Switch on (In)	Product Reference
200V/240V	400V/440V	660V/690V	NO	NC	Operations House	Operations		
1.4	2.5	3	1	0	240	200000	200	TC1-D02K10 ■
			0	1				TC1-D02K01 ■
2.8	5	6.5	1	0	240	200000	200	TC1-D05K10 ■
			0	1				TC1-D05K01 ■
4	7.5	3	1	0	240	200000	200	TC1-D07K11 ■
			0	2				TC1-D07K02 ■
5.5	10	12.5	1	1	240	200000	200	TC1-D10K11 ■
			0	2				TC1-D10K02 ■
6.7	12.5	18	1	1	240	200000	200	TC1-D12K11 ■
			0	2				TC1-D12K02 ■
8.5	16.7	24	1	1	240	200000	200	TC1-D16K11 ■
			0	2				TC1-D16K02 ■
10	20	30	1	1	240	200000	200	TC1-D20K11 ■
			0	2				TC1-D20K02 ■
15	25	36	1	1	240	200000	200	TC1-D25K11 ■
			0	2				TC1-D25K02 ■
20	33.3	48	1	2	100	100000	200	TC1-D33K12 ■
25	40	58	1	2	100	100000	200	TC1-D40K12 ■
30	50	72	1	2	100	100000	200	TC1-D50K12 ■
40	60	92	1	2	100	100000	200	TC1-D60K12 ■
45	75	120	1	2	100	100000	200	TC1-D75K12 ■
48	80	128	1	2	100	100000	200	TC1-D80K12 ■
60	100	143	1	2	100	100000	200	TC1-D100K12 ■

Technical Specifications - Exceed

KVR*Rating 50/60Hz ($\theta \leq 55^{\circ}\text{C}(3)$)			Instataneous Auxillary Contacts		Maximum Oprating Rate	Electrical Life at Rated Load	Prospective Peak Current at Switch on (In)	Product Reference
200V/240V	400V/440V	660V/690V	NO	NC	Operations House	Operations		
1.4	2.5	3	1	0	240	140000	200In	TC1-D02K10E
			0	1				TC1-D02K01E
2.8	5	6.5	1	0	240	140000	200In	TC1-D05K10E
			0	1				TC1-D05K01E
4	7.5	3	1	0	240	140000	200In	TC1-D07K11E
			0	2				TC1-D07K02E
5.5	10	12.5	1	1	240	140000	200In	TC1-D10K11E
			0	2				TC1-D10K02E
6.7	12.5	18	1	1	240	140000	200In	TC1-D12K11E
			0	2				TC1-D12K02E
8.5	16.7	24	1	1	240	140000	200In	TC1-D16K11E
			0	2				TC1-D16K02E
10	20	30	1	1	240	70000	200In	TC1-D20K11E
			0	2				TC1-D20K02E
15	25	36	1	1	240	70000	200In	TC1-D25K11E
			0	2				TC1-D25K02E
20	33.3	48	1	2	240	70000	200In	TC1-D33K12E
25	40	58	1	2	100	70000	200In	TC1-D40K12E
30	50	72	1	2	100	70000	200In	TC1-D50K12E
40	60	92	1	2	100	70000	200In	TC1-D60K12E

NOTES:

- Additional Auxiliary Contact block (Side mounted) type TA8DN11 or TA8DN20 can be mounted, if required from 2.5kAvr to 75kVAr ratings.
- Type TC1-D02K~TC1-D25K: Suitable type clip-on mounting into 35mm DIN rail
- Type TC1-D33K~TC1-D100K: Suitable type clip-on mounting into 75mm DIN rail
- Average temperature over a 24-hour period, in accordance with IEC 70 and 831
- Standard Control Circuit Voltage / Frequency

ORDERING INFORMATION

Enterprise Code	kVAr Rating	Auxiliary Contact	Coil Reference
TC1-D	— K	XX	■
	02		
	05	10 1NO	
	07	01 1NC	
	10		
	12	11 1NO+1NC	
	16		
	20	02 2NC	
	25	11 1NO+2NC	
	33		
	40		
	50		
	60		
	75		
	80		
	100		

TC1-D02K10 ■

Add ON Block Option

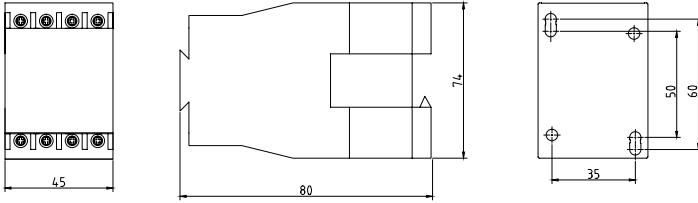
Contactor Type / rating	Mounting Details	Type	Auxiliary Contacts
2.5 kVAr onwards	Side Mounting	TA8DN11	1NO+1NC
		TA8DN20	2NO
TC1-D07K-TC1-D25K	Clip - on	35 mm DIN rail	
TC1-D33K-TC1D100K	Clip - on	75 mm DIN rail	

■ Suffix codes for all contactors & Coils

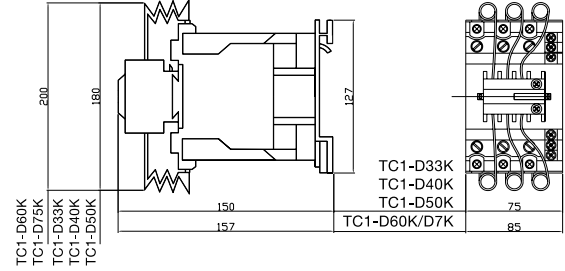
For Contactor Type	Coil Reference	Volts	24	48	110	120	208	220	230	240	277	380	400	415	440	480	575	600
TC1D02K-TC1D16K,	TX1-D2	50 Hz	B5	E5	F5	-	-	M5	P5	U5	-	Q5	V5	N5	R5	-	-	
TC1D25K	TX1-D4	60 Hz	B6	E6	F6	G6	L6	M6		U6	W6	Q6			R6	T6	S6	X6
TC1D33K-TC1D75K	TX1-D6	50/60 Hz	B7	E7	F7	G7	-	M7	P7	U7	-	Q7	V7	N7	R7	-	-	
TC1D80K-100K	TX1D8	50 Hz	B5	E5	F5			M5	P5	U5		Q5		N5				

Dimensional Drawing

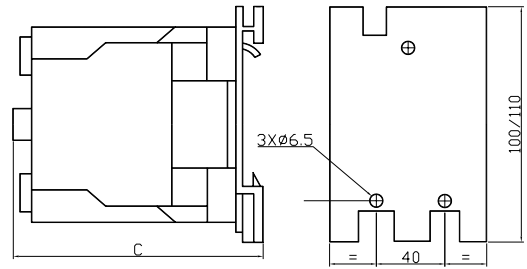
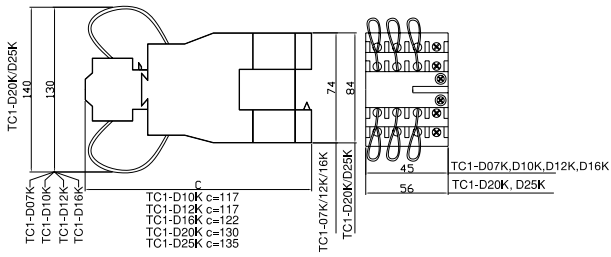
TC1-D02K, D05K



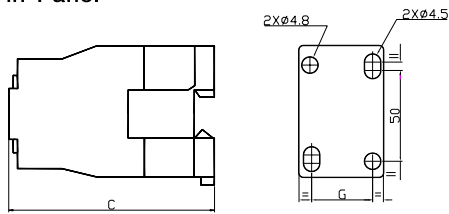
TC1-D33K, D40K, D60K, D75K



TC1-D07K, D10K, D16K, D20K, D25K

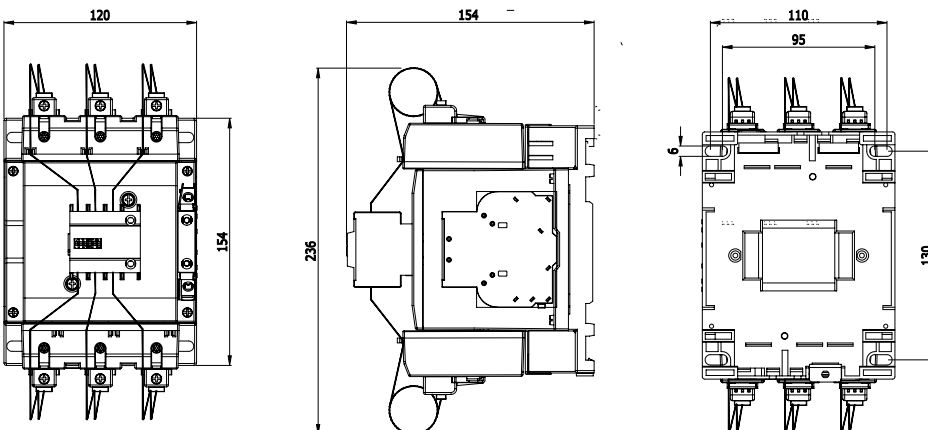


Mounting in Panel



TC-1	D02K	D05K	D07K	D10K	D12K	D16K	D20K	D25K
C	80	80	80	80	80	85	93	98
G	35	35	35	35	35	35	40	40

TC1-D80K, D100K



Marketing offices spread all over India

CENTRAL MARKETING OFFICE

C-60, Wing-A, Phase-II, Noida, District Gautam Budh Nagar, Uttar Pradesh-201 305 (INDIA)

Tel.: +91 120 387 4800 / 01 | Email : cmo@cselectric.co.in

CUSTOMER CARE

Toll Free Number: 1800 572 2012

E-mail: customercare@cselectric.co.in

NORTHERN REGION

DELHI

Email: cmo@cselectric.co.in

LUDHIANA

Email: ludhiana@cselectric.co.in

LUCKNOW

Email: lucknow@cselectric.co.in

KANPUR

Email: lucknow@cselectric.co.in

JAIPUR

Email: jaipur@cselectric.co.in

CENTRAL REGION

INDORE

Email: indore@cselectric.co.in

RAIPUR

Email: raipur@cselectric.co.in

NAGPUR

Email: nagpur@cselectric.co.in

EASTERN REGION

KOLKATA

Email: kolkata@cselectric.co.in

GUWAHATI

Email: guwahati@cselectric.co.in

RANCHI

Email: ranchi@cselectric.co.in

BHUBANESWAR

Email: bhubaneshwar@cselectric.co.in

WESTERN REGION

MUMBAI

Email: mumbai@cselectric.co.in

PUNE

Email: pune@cselectric.co.in

AHMEDABAD

Email: ahmedabad@cselectric.co.in

RAJKOT

Email: ahmedabad@cselectric.co.in

BARODA

Email: baroda@cselectric.co.in

SURAT

Email: surat@cselectric.co.in

SOUTHERN REGION

CHENNAI

Email: chennai@cselectric.co.in

COIMBATORE

Email: coimbatore@cselectric.co.in

KOCHI

Email: cochin@cselectric.co.in

MADURAI

Email: commercial.madurai@cselectric.co.in

BENGALURU

Email: bangalore@cselectric.co.in

HYDERABAD

Email: hyderabad@cselectric.co.in

VIJAYAWADA

Email: vijayawada@cselectric.co.in

RESIDENT ENGINEERS

AHMEDABAD: Visnagar **BANGALORE:** Bellary, Hassan, Hubli, Mangalore **BARODA:** Anand, Vapi **BHUBANESWAR:** Behrampur, Cuttack, Rourkela, Sambalpur **CHENNAI:** Vellore, Trichy **KOCHI:** Kollam **COIMBATORE:** Erode **DELHI & HARYANA:** Gurugram, Hissar, Panipat, **UP (W) & UK:** Agra, Bareilly, Dehradun, Ghaziabad, Meerut, Moradabad, Noida **GUWAHATI:** Silchar, Tezpur **HYDERABAD:** Karimnagar, Warangal **INDORE:** Bhopal, Gwalior, Jabalpur, Rewa, Ujjain **J&K:** Kashmir, Srinagar **JAIPUR:** Bhilwara, Bikaner, Jodhpur, Kota, Sikar, Udaipur **KOLKATA:** Bankura, Bardhaman, Siliguri **LUCKNOW:** Gorakhpur, Prayagraj, Shahjhanpur, Varanasi **LUDHIANA:** Amritsar, Barnala, Jammu, Mansa **MADURAI:** Nagercoil, Rajapalayam **MUMBAI:** Aurangabad, Nasik **NAGPUR:** Akola, Amravati, Chandrapur **PUNE:** Goa, Nasik, Kolhapur, Sangali, Solapur **RAIPUR:** Ambikapur **RAJKOT:** Bhavnagar, Jamnagar **RANCHI:** Dhanbad, Muzaffarpur, Patna, Purnia, Siwan **SURAT:** Aurangabad, Nasik **VIJAYAWADA:** Chittoor, Rajahmundry, Tirupathi, Vishakhapatnam

WAREHOUSES

National Warehouse

NOIDA

B-58, Sector-80, Phase-II, Noida, District Gautam Budh Nagar, Uttar Pradesh - 201305 INDIA
Ph.: +91 120 3857483/84/88/89

Regional Warehouses

INDORE

Liberty Agencies 53, Udyog Nagar, Near Musakhedi Square, Ring Road, Indore - 452001 INDIA
Ph.: +91 88780 62000 / 64000

RANCHI

Plot No. 145/C, Mandir Marg-D, Road No. 4, Ashok Nagar, Distt. Ranchi, Jharkhand - 834002 INDIA
Ph.: +91 651 2242202, 2242224

AHMEDABAD

B-25-B/C Meldi Industrial Estate, Opp. West Coast Pharmaceutical, Nr. Gota Over Bridge, Gota, Ahmedabad - 382481 INDIA
Mob.: +91 7698996868 / 6351725096,

BENGALURU

No. 25, Pattanagere Village, Kengeri Hobli, Rajarajeshwari Nagar, Bangalore - 560098 INDIA
Ph.: +91 80 29700265

