



ENERGIZING YOUR WORLD



Motor Controllers & Starters

Disconnect Switches □ Direct-on-Line Starters

ABOUT US

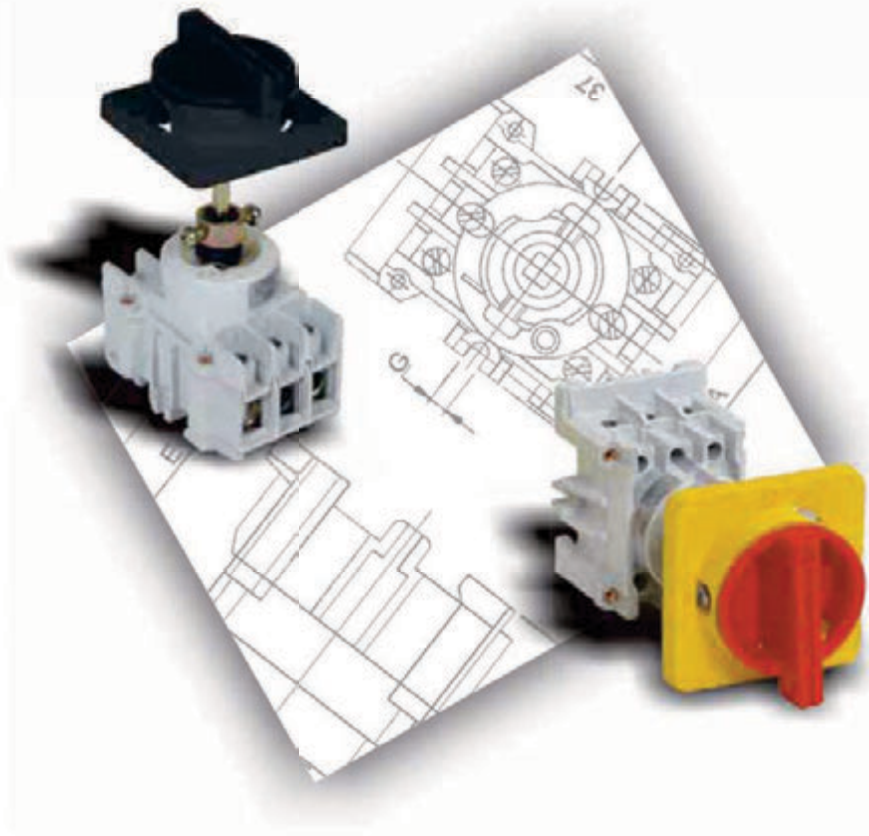
TC Electric Controls LLC is a US based privately held joint venture with a world class manufacturer of Industrial controls, designed and built for the HVAC, Commercial, Industrial and OEM markets. Our product scope includes, but is not limited to IEC Contactors & Overloads, Manual Motor Controllers & Starters, Control & Signaling Devices and Circuit Breakers.

Our Corporate Headquarters is in Schaumburg, Illinois with warehousing locations in Melbourne Florida, Rockford Illinois and Phoenix Arizona. Our partner has over 50 years history in the electrical industry, including 17 World Class Manufacturing Facilities that are ISO-9001 / ISO-14000 certified at premier locations in India, China and Belgium. We have over 2 million square-feet of manufacturing facilities, and four Government Accredited R&D centers including a UL Certified Test Lab.

Our vertically integrated manufacturing facilities assure strict quality control and flexibility to adapt to customer needs. TC Electric Controls can enhance your position through industry leading designs, quality, manufacturing and competitiveness.



ENERGIZING YOUR WORLD



Manual Motor Controllers Disconnect Switches

UL 508 Listed



ENERGIZING YOUR WORLD

Motor Disconnect Switches



Salient Features

- Compact design
- Motor Starting - upto 60 HP / 600V
- General use rating 16A to 125A / 600V
- Comprehensive range of accessories includes Door Mounting Kits / Snap-on Auxiliary Contacts
- Choice of external handles / shafts

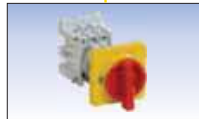
Conformity to Standards

- UL508 as Motor Controller (UL File E233199)
- CSA
- IEC 60947 - 3 as Switch Disconnecter
- CE mark

Technical Characteristics

UL Technical Characteristics

Catalog Reference	3P	CSSD16D1	CSSD25D1	CSSD30D1	CSSD40D1	CSSD60K3	CSSD80D1	CSSD100D1	CSSD125D1
	4P	CSSD16D4	CSSD25D4	CSSD30D4	CSSD40D4	NA	NA	NA	NA
Rating (3/4 Poles)	A	16	25	30	40	60	80	100	125
UL Approval		UL 508	UL 508	UL 508	UL 508	UL 508	UL 508	UL 508	UL 508
Max. Operational Voltage	V	600	600	600	600	600	600	600	600
Short Circuits Rating	KA	10	10	10	10	10	10	10	10
Branch Circuit Fuse Type		KTS-R	KTS-R	KTS-R	KTS-R	KTS-R	KTS-R	KTS-R	KTS-R
Max. Fuse Rating	A	80	80	80	80	150	150	150	150
Max. H.P. Rating									
Three Phase a) 240V	HP	5	5	7.5	10	15	20	25	25
b) 480V	HP	7.5	10	15	20	30	40	50	50
c) 600V	HP	10	15	25	30	40	50	60	60
Single Phase a) 120V	HP	1	1.5	2	2	3	5	5	5
b) 240V	HP	2	3	5	5	10	15	15	15
Wire Range (Stranded)	AWG	# 14~# 12	# 10	# 10	# 8	# 6	# 6~# 4	# 4	# 3~# 1
Wire Type (Stranded)		Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Weight 3 pole	lb.	0.44	0.44	0.44	0.44	0.66	0.66	0.66	0.66



IEC Technical Characteristics

Catalog Reference	3P	CSSD16D1	CSSD25D1	CSSD30D1	CSSD40D1	CSSD60K3	CSSD80D1	CSSD100D1	CSSD125D1
	4P	CSSD16D4	CSSD25D4	CSSD30D4	CSSD40D4	NA	NA	NA	NA
Rating (3/4 Poles)	A	16	25	30	40	60	80	100	125
Thermal Current (40°C)	A	16	25	30	40	60	80	100	125
Rated Insulation Voltage (Ui)	V	690	690	690	690	690	690	690	690
Rated Imp. Withstand Voltage (Uimp)	KA	8	8	8	8	8	8	8	8
Operational Current	A								
400V AC AC22A		16	25	30	40	63	80	80	80
AC23A		16	25	25	25	63	63	63	63
500V AC AC22A		16	25	30	40	63	80	80	80
AC23A		16	20	25	25	45	45	45	45
690V AC AC22A		16	25	30	40	63	80	80	80
AC 23A		16	20	25	25	40	40	40	40
Motor Power	KW								
400V AC AC23		5.5	7.5	11	11	25	25	25	25
500V AC AC23		7.5	9	15	15	25	25	25	25
690V AC AC23		9	11	15	15	25	25	25	25
Short Circuit Current with fuses	kArms	50	50	50	50	50	50	50	50
Max. rating for associated fuses	A	16	25	30	40	63	80	80	80
Cut off current	kAp	4.5	4.5	5	5	8	8	8	8
Short Time withstand Current for 1 sec.	kA	0.9	0.9	1	1	1.5	1.5	1.5	1.5
Mechanical Endurance	Nos.	20000	20000	20000	20000	20000	20000	20000	20000
Connection CU	Sq.mm	1.5 to 6	1.5 to 6	1.5 to 6	1.5 to 6	1.5 to 35	1.5 to 35	1.5 to 35	1.5 to 35

Ordering Information

Select a Switch



Ampere Rating		16A	25A	30A	40A	60A	80A	100A	125A
Catalog Reference	3P	CSSD16D1	CSSD25D1	CSSD30D1	CSSD40D1	CSSD60K3	CSSD80D1	CSSD100D1	CSSD125D1
	4P	CSSD16D4	CSSD25D4	CSSD30D4	CSSD40D4	NA	NA	NA	NA

NA - Not Available at present

Select Handle & Shaft

Rotary Handle



NEMA TYPE	IEC TYPE	DEFEATABLE	PADLOCKABLE	COLOR (16A~125A)	OPERATION	CATALOG NO.
1, 3R, 12, 4, 4X	IP65	NO	YES	BLACK	I/O	CSSDZX104
1, 3R, 12, 4, 4X	IP65	NO	YES	RED/YELLOW	I/O	CSSDZX106

5 x 5mm Shaft - for use with Rotary Handles only



SHAFT LENGTH (Inches / mm)	CATALOG NO. (16A~125A)
2.75 / 70	Sq. 5 x 70
4.72 / 120	Sq. 5 x 120
7.9 / 200	Sq. 5 x 200
12.0 / 305	Sq. 5 x 305

Pistol Handle



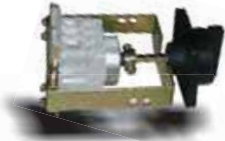
NEMA TYPE	IEC TYPE	DEFEATABLE	PADLOCKABLE	COLOR (16A~125A)	OPERATION	CATALOG NO.
1, 3R, 12, 4, 4X	IP65	NO	YES	BLACK	I/O	CSDB20
1, 3R, 12, 4, 4X	IP65	NO	YES	RED/YELLOW	I/O	CSDB21

6 - 5mm Shaft - for use with Pistol Handles only



SHAFT LENGTH (Inches / mm)	CATALOG NO. (16A~125A)
4.72 / 120	Sq. 6-5 x 120
7.9 / 200	Sq. 6-5 x 200
12.0 / 320	Sq. 6-5 x 320

Other Accessories (Optional)



Door Mounting Kits

FOR SWITCHES	CATALOG NO.
CSSD16D1 ~ CSSD125D1	DMK 1/1A
CSSD16D4 ~ CSSD40D4	DMK 1/3

Auxiliary Switches*

FOR SWITCHES	CATALOG NO.	CONFIGURATION
CSSD16D1 ~ CSSD40D1	CSSDZX101	1NO
	CSSDZX102	1NC
	CSSDZX105	1NO + 1NC
CSSD60D1 ~ CSSD125D1	CSSDZY101	1NO
	CSSDZY102	1NC
	CSSDZY105	1NO + 1NC

* Auxiliary Block + Mounting Bracket

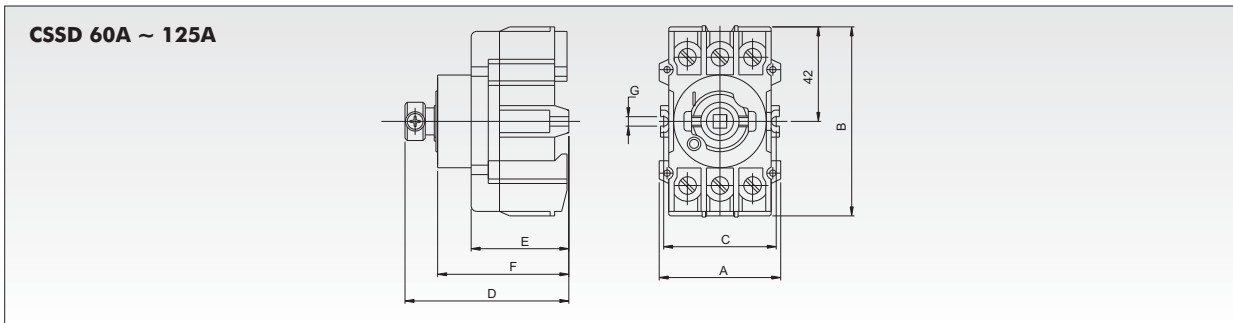
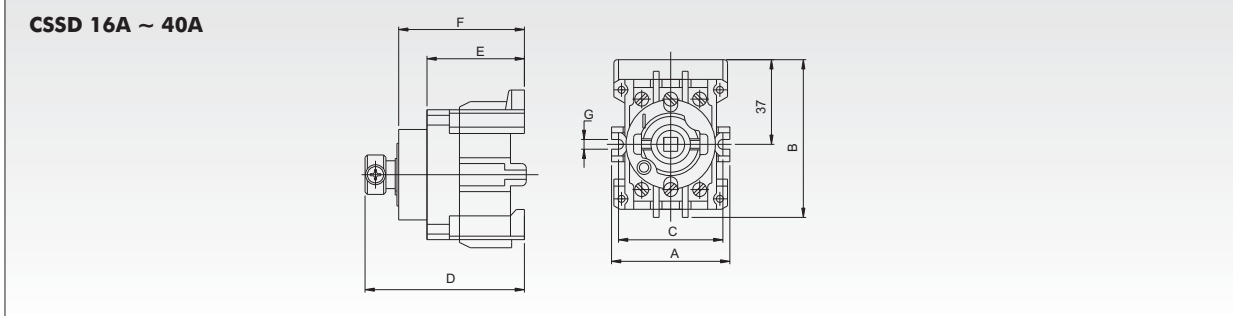


Auxiliary Blocks**

CATALOG NO.	CONFIGURATION
RB2-BE101	1 NO
RB2-BE102	1 NC

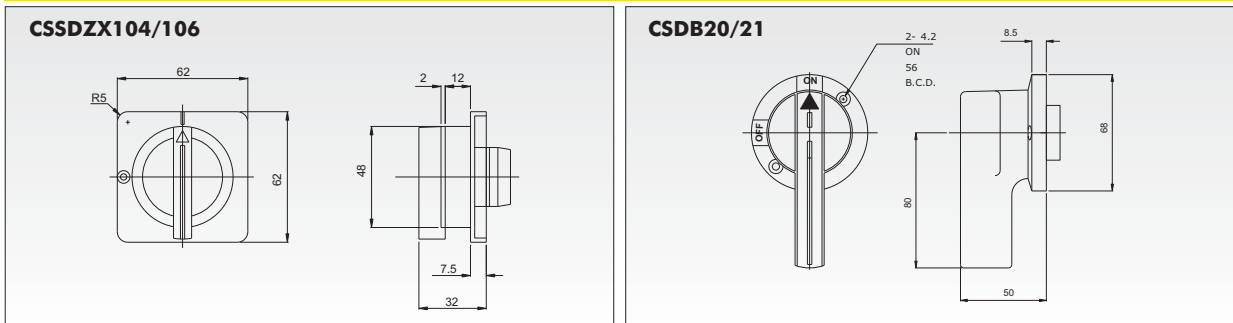
** Maximum assembly of 3 Auxiliary Blocks possible on either side

Dimensions Details CSSD 16 ~ 125D1



Rating	A		B		C		D		E		F		G	
	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.
CSSD 16A -40A	51	2.01	68	2.68	45	1.77	69	2.72	42	1.65	55	2.16	4.2	0.17
CSSD 60A-125A	52.5	2.07	83.7	3.30	50	1.97	73	2.87	43	1.69	58	2.28	4.2	0.17

Handle Dimensions Details



Rating	Min. Mounting Depth			
	Square Bezel Type		Pistol Type	
	mm	In.	mm	In.
CSSD 16~40A	90	3.54	132	5.20
CSSD 60~125A	90	3.54	136	5.35



Motor Starters

Motor Starters

Non-Reversing, Reversing Starters (NEMA Type)



TE1D●



TE2D●



TA9●

3 Pole Enclosed, Type 1, Non-Reversing Starters, Steel Enclosure

Maximum HP Ratings						Catalog Number
1-Phase		3-Phase				
120V	240V	208V	240V	480V	600V	
0.5	1	2	2	5	7.5	TE1D0936■
1	1	3	3	7.5	10	TE1D1236■
1	3	5	5	10	15	TE1D1836■
1.5	3	5	7.5	15	20	TE1D2536■
2	5	7.5	10	20	25	TE1D3236■
3	5	10	10	30	30	TE1D4036■
3	7.5	10	15	30	40	TE1D5036■
5	10	15	20	40	50	TE1D6536■
5	10	20	20	50	60	TE1D8036■

3 Pole Enclosed, Type 1, Reversing Starters, Steel Enclosure

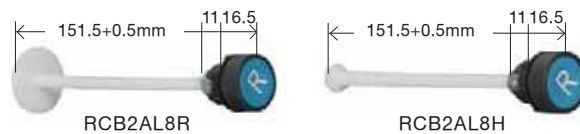
Maximum HP Ratings						Catalog Number
1-Phase		3-Phase				
120V	240V	208V	240V	480V	600V	
0.5	1	2	2	5	7.5	TE2D0936■
1	1	3	3	7.5	10	TE2D1236■
1	3	5	5	10	15	TE2D1836■
1.5	3	5	7.5	15	20	TE2D2536■
2	5	7.5	10	20	25	TE2D3236■
3	5	10	10	30	30	TE2D4036■
3	7.5	10	15	30	40	TE2D5036■
5	10	15	20	40	50	TE2D6536■
5	10	20	20	50	60	TE2D8036■

Push Buttons & Pilot Lights "Quick Kits"

Description	Catalog Number
ON / OFF Selector Switch	TA9C6
Hand-OFF-Auto Selector Switch	TA9C
Red or Green Pilot Light 120V	TA9P12
SMArt / Stop Push Button	TA9A
ON / OFF Selector Switch with Red or Green P / L	TA9C6P12
SMArt / Stop Push Button with Red Light or Green P / L	TA9AP12
Forward / Reverse / Stop Push Buttons	TA9A1
Hand / OFF / Auto Selector Switch with Red or Green P / L 120V	TA9CP12
SMArt / Stop Push Button with Red or Green Transformer P/L 120V	TA9AP5152
Transformer Red or Green Pilot Light 120V	TA9P5152
Hand / OFF / Auto Selector Switch with Red or Green Transformer P / L 120V	TA9CP5152

Reset Extended Push Button

Description	Reference
Reset Extended Push Button (Round Type)	RCB2AL8R
Reset Extended Push Button (Hex Type)	RCB2AL8H



* Overload Relay not included. Please select from page B-27

Motor Starters

Direct-On-Line Motor Starters (IEC)



LE1D■

Direct-On-Line Motor Starters in Plastic Enclosures**

Max. Motor Rating (kW) 3 phase 50 Hz					Overload Relay Range (Amps)	Contactor Reference	Contactor AC3 duty Rating	Starter Catalog Reference	Recommended Back-up HRC Fuse Rating	
208V	240V	415V	480V	660V					(aM)	(gI)
-	-	0.5	-	0.55	0.63-1.00	TC1D12	12A	LE1D123■305	2	4
-	0.37	0.55	0.75	1.1	1.00-1.60	TC1D12	12A	LE1D123■308	2	4
0.37	0.75	1.1	1.1	1.5	1.60-2.50	TC1D12	12A	LE1D123■307	4	6
0.75	1.5	1.5	1.5	3	2.50-4.00	TC1D12	12A	LE1D123■308	6	10
1.1	2.2	2.2	2.2	4	4.00-6.00	TC1D12	12A	LE1D123■310	8	16
1.5	3	3.7	3.7	5.5	5.50-8.00	TC1D12	12A	LE1D123■312	12	20
2.2	4	4	4	7.5	7.00-10.0	TC1D12	12A	LE1D123■314	12	20
3	5.5	5.5	5.5	10	9.0-13.0	TC1D12	12A	LE1D123■316	16	25
4	7.5	9	9	15	12.0-18.0	TC1D18	18A	LE1D183■321	20	32
5.5	11	11	11	18.5	17.0-25.0	TC1D25	25A	LE1D253■322	25	50

* Overload Relay not included. Please select from page B-27

** Standard Fault Ratings $\frac{U_L}{I_B}$

Replace ■ with voltage code from table - 2

Table-2 : ■ -AC Coil Voltages

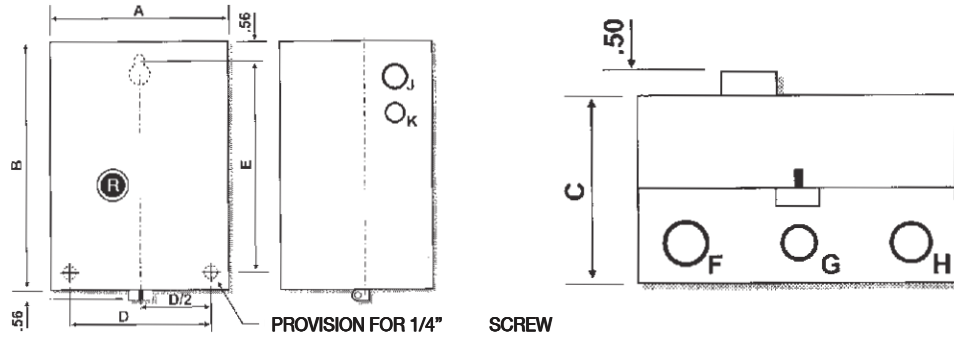
Volts AC	24	48	110	120	208	220	240	277	380	415	440	480	575	600
50 Hz	B5	E5	F5	-	-	M5	U5	-	Q5	N5	R5	-	-	-
60 Hz	B6	E6	F6	G6	L6	M6	U6	W6	Q6	-	R6	T6	S6	X6
50/60 Hz	B7	E7	F7	G7	-	M7	U7	-	Q7	N7	R7	-	-	-

E

Motor Starters

Dimensions

Non-Reversing/Reversing



Type of Starter		Box Dimensions (in)									
Non-Reversing	Reversing	A	B	C	D	E	F	G	H	J	K
TE1D09 - D25	-	6.77	10.04	6.25	5.38	9.00	1 - 1 ¹⁴	W, 3/8	-	1 - 1 ¹⁴	W, 3/8
TE1D32 - D50	TE2D09 - D32	8.66	10.83	7.21	7.25	9.75	1 ¹⁴ - 1 ¹⁰	W, 3/8	1 - 1 ¹⁴	1 - 1 ¹⁴	W, 3/8
TE1D65 - D80	TE2D40 - D82	10.63	13.98	7.21	9.22	12.94	1 ¹⁴ - 1 ¹⁰	W, 3/8	1 - 1 ¹⁴	1 - 1 ¹⁴	W, 3/8

Direct-ON-Line (Plastic)

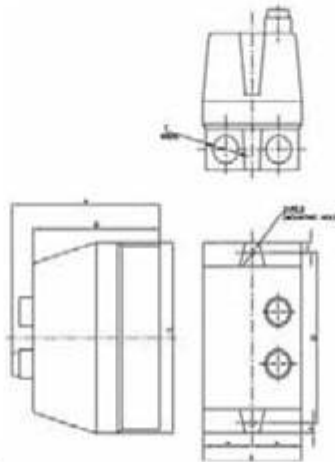
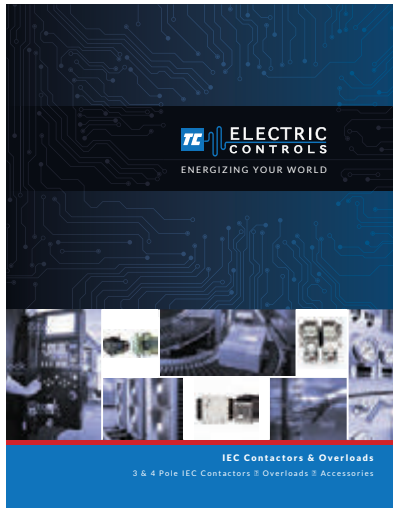


TABLE (mm)

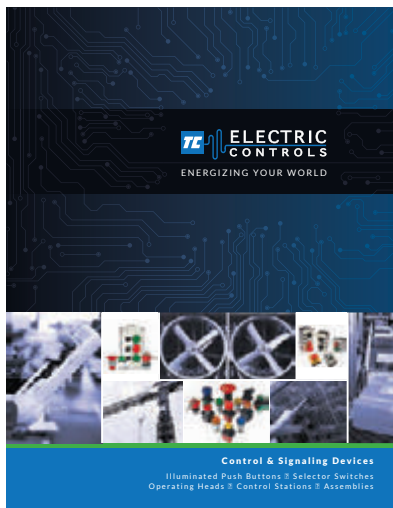
ENCL. SIZE	STARTER REFERENCE	HP RATING	A	B	C	D	E	F
A' SIZE	LE1-D122	0.2-7.5	140	120	160	120	88	66
B' SIZE	LE1-D183-D253	12.0-20.0	150	130	180	160	101	66

E

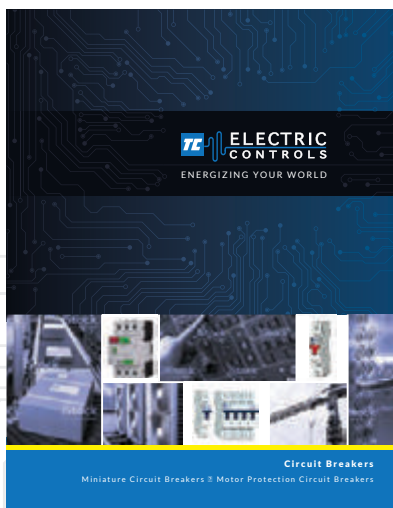
OTHER TC ELECTRIC CONTROLS PRODUCT LINE CATALOGS



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