

CÔNG TY CỔ PHẦN THIẾT BỊ ĐIỆN HOÀNG PHƯƠNG

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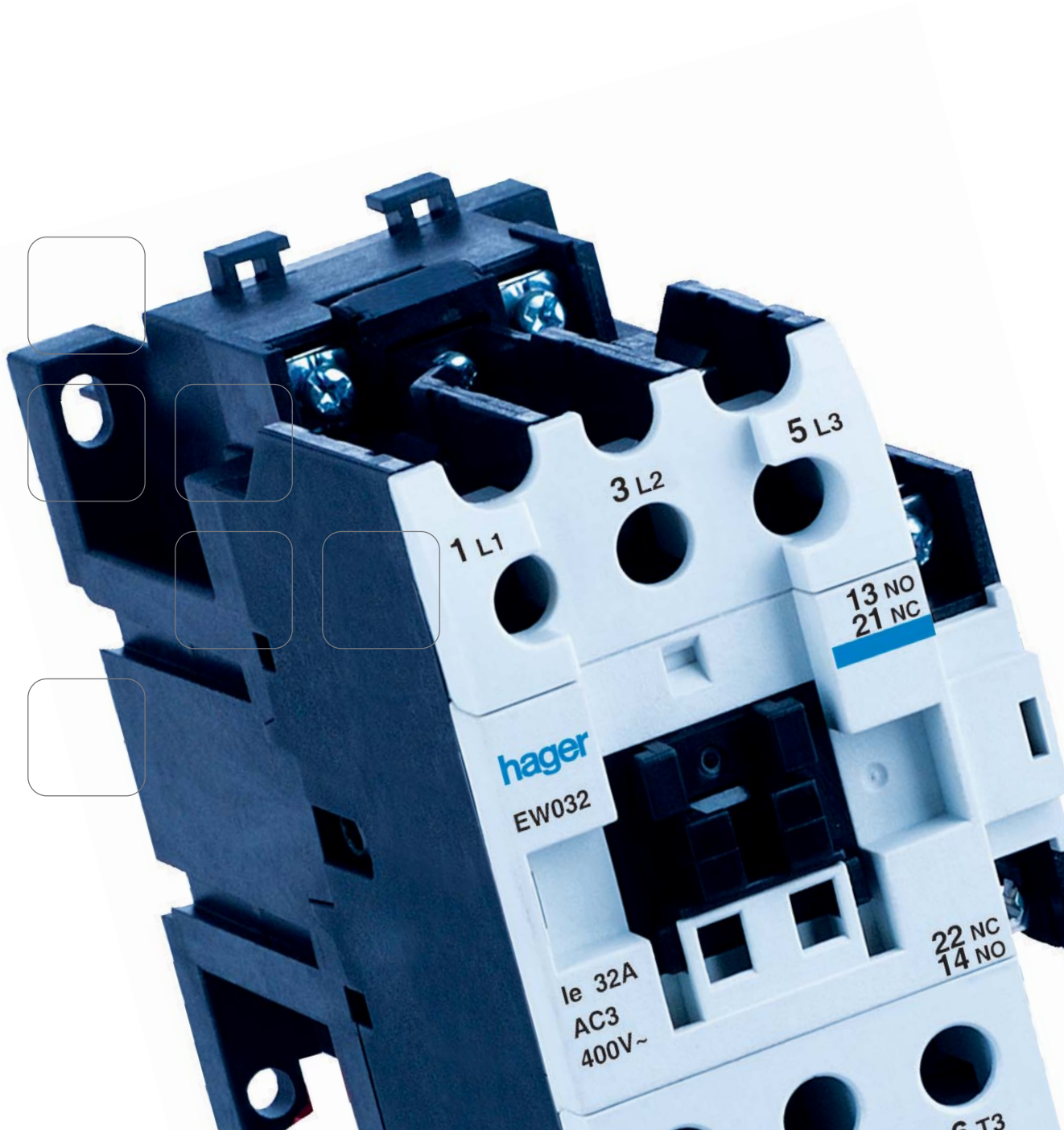
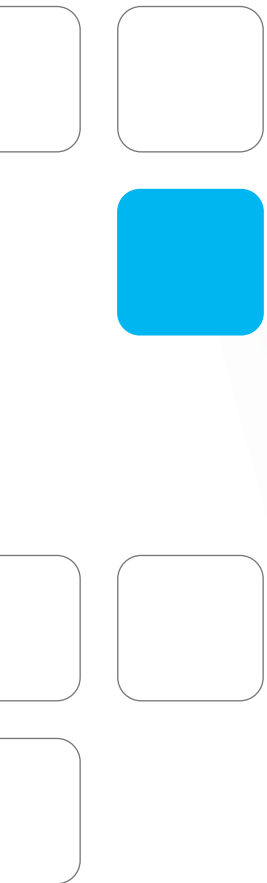
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EW series

Industrial contactors



EW series Industrial contactors

Hager offers a complete range of contactors for commercial market such as buildings, infrastructures, etc...

Industrial contactors are used to switch high power circuits and can be controlled by a full range of control circuits.



Your benefits :

- The contactors may be additionally equipped with thermal relays, mechanical interlock, auxiliary contacts and surge suppressors etc to expand the functions of products
- Easy for installation : screw or DIN rail mounted
- Contactor terminals are designed with IP20 degree to ensure personal safety
- Double contacts auxiliary for a reliable action
- High grade of coil insulation
- Coils of high insulation degree can avoid interlayer open circuits

Technical characteristics :

- According to IEC60947-4-1
- Approvals : UL
- Rated current: 7A~300A
- Main pole : 3 Poles
- Utilization category: AC3

Expert tips

1



Thermal overload relay

- with overload protection and phase-failure protection
- 1NO-1NC, new design of independent auxiliary contacts, easy wiring and reliable action



- thermal relays terminals designed with IP20 degree
- manual and automatic reset function
- front mounted auxiliary contact

2



Auxiliary contact



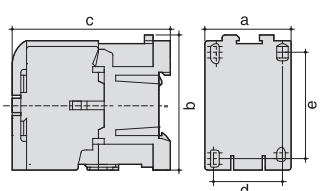
- choice of auxiliary contacts
- double contacts design for higher reliability.
- front and side mounting auxiliary contacts

3



Mechanical Interlock

- Mechanical interlock protect against the risk of short circuit for reversing and change over contactors

References*		EW005		EW006	
					
Main contact					
Rated insulation voltage U_i (V)		690		690	
Rated operational voltage U_e (V)		690		690	
Thermal current I_{th} AC1 (A)		20		20	
Main contact rated operational current AC-3 Ie	Single pole	110V	8A / 0,37 kW	10.5A / 0.55kW	
		220V	7A / 0.75kW	10A / 1.1kW	
	Three pole	220/230V	7.5A / 1.5kW	10.1A / 2.2kW	
		380/400V	7A / 3kW	9A / 4kW	
		415/440V	6.5A / 3kW	8.5A / 4kW	
		500V	5A / 3kW	6.5A / 4kW	
660V	4A / 3kW	5A / 4kW			
Auxiliary contact					
Rated insulation voltage U_i (V)		600		600	
Rated operational voltage U_e (V)		600		600	
Thermal current I_{th} AC/DC (A)		10/2.5		10/2.5	
Auxiliary contact rated current Ie	AC 15	120V	6	6	
		240V	3	3	
		380V	1.9	1.9	
		480V	1.5	1.5	
	DC 13	125V	0.55	0.55	
		250V	0.27	0.27	
Contactor life					
Operation frequency (cycles/hour)		1200		1200	
Electrical lifespan (cycles)		1,000,000		1,000,000	
Mechanical lifespan (cycles)		10,000,000		10,000,000	
Others					
Type of auxiliary contact	NO	1	1		
	NC	0	0		
Weight (kg)		0.18		0.18	
Dimensions (mm)					
		a	45	45	
		b	58	58	
		c	54	54	
		d	36	36	
		e	50.5	50.5	

* **Note:** Control circuit rated operational voltage

C: 220V AC 50/60Hz (EW005_C ~ EW006_C)
 D: 380V AC 50/60Hz (EW005_D ~ EW006_D)
 H: 110V AC 50/60Hz (EW005_H ~ EW006_H)

N: 24V AC 50/60Hz (EW005_N ~ EW006_N)
 P: 48V AC 50/60Hz (EW005_P ~ EW006_P)






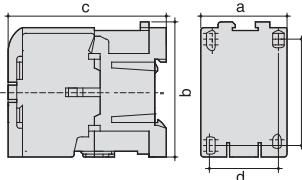
EWT...A

Designation	Characteristics	Cat. ref.
Thermal overload relays h.62 x l.45 x w.60 mm	Setting range: 0.1 - 0.16A	EWT001A
	0.16 - 0.25A	EWT002A
	0.25 - 0.4A	EWT004A
	0.35 - 0.5A	EWT005A
	0.45 - 0.63A	EWT006A
	0.55 - 0.8A	EWT008A
	0.75 - 1A	EWT010A
	0.9 - 1.3A	EWT013A
	1.1 - 1.6A	EWT016A
	1.4 - 2A	EWT020A
	1.8 - 2.5A	EWT025A
	2.3 - 3.2A	EWT032A
	2.9 - 4A	EWT040A
	3.5 - 4.8A	EWT048A
	4.5 - 6.3A	EWT063A
5.5 - 7.5A	EWT075A	
7.2 - 10A	EWT100A	
9 - 12.5A	EWT125A	
Auxiliaries installation on the top, for EW005 and EW006	1NO + 1NC	EWA011
	2NO	EWA012
	2NC	EWA013
	4NO	EWA014
	3NO + 1NC	EWA015
	2NO + 2NC	EWA016
	1NO + 3NC	EWA017
	4NC	EWA018
Mechanical interlocks installation on the top.	for AC contactor	EWA105
	for DC contactor	EWA106
Surge supsessor rheostat type	Operational voltage: 24V Current rating: 28.5 - 38.5mA Drop-out time < 40ms	EWA405



EWA405







Contactors

References*		EW007	EW009	EW012	
					
Main contact					
Rated insulation voltage U_i (V)		660	660	660	
Rated operational voltage U_e (V)		660	660	660	
Thermal current I_{th} AC1 (A)		20	20	25	
Main contact rated operational current AC-3 I_e	Single pole	110V	8A / 0,37 kW	10.5A / 0.55kW	10.5A / 0.55kW
		220V	7A / 0.75kW	10A / 1.1kW	10A / 1.1kW
	Three pole	220/230V	7.5A / 1.5kW	10.1A / 2.2kW	12A / 3kW
		380/400V	7A / 3kW	9A / 4kW	12A / 5.5kW
		415/440V	6.5A / 3kW	8.5A / 4kW	11A / 5.5kW
		500V	5A / 3kW	6.5A / 4kW	9A / 5.5kW
		660V	4A / 3kW	5A / 4kW	7A / 5.5kW
Auxiliary contact					
Rated insulation voltage U_i (V)		690	690	690	
Rated operational voltage U_e (V)		600	600	600	
Thermal current I_{th} AC/DC (A)		10/2.5	10/2.5	10/2.5	
Auxiliary contact rated current I_e	AC 15	120V	6	6	6
		240V	3	3	3
		380V	1.9	1.9	1.9
		480V	1.5	1.5	1.5
	DC 13	125V	0.55	0.55	0.55
		250V	0.27	0.27	0.27
		Contactor life			
Operation frequency (cycles/hour)		1200	1200	1200	
Electrical lifespan (cycles)		1,000,000	1,000,000	1,000,000	
Mechanical lifespan (cycles)		10,000,000	10,000,000	10,000,000	
Others					
Type of auxiliary contact	NO	1	1	1	
	NC	0	0	0	
Weight (kg)		0.3	0.3	0.3	
Dimensions (mm)					
		a	45	45	45
		b	70	70	70
		c	82	82	82
		d	35	35	35
		e	55	55	55




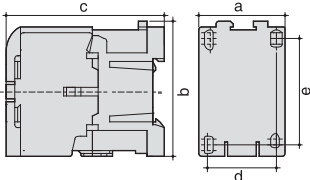
* **Note:** Control circuit rated operational voltage
 C: 220V AC 50/60Hz (EW007_C ~ EW300_C)

D: 380V AC 50/60Hz (EW007_D ~ EW300_D)
 E: 24V DC 50/60Hz (EW007_E ~ EW090_E)
 F: 48V DC 50/60Hz (EW007_F ~ EW090_F)
 H: 110V AC 50/60Hz (EW007_H ~ EW090_H)

J: 230V AC 50Hz (EW007_J ~ EW300_J)
 K: 24V AC 50/60Hz (EW007_K ~ EW300_K)
 L: 400V AC 50/60Hz (EW007_L ~ EW090_L)
 M: 415V AC 50Hz (EW007_M ~ EW090_M)

EW016	EW020	EW025	EW032	EW038	EW040
					
660	660	660	1000	1000	1000
660	660	660	690	690	690
25	32	35	60	60	60
13.5A / 0.75 kW	19.5A / 1.1kW	25.5A / 1,5kW	35A / 1.5kW	39A / 2.2kW	37A / 2.2kW
14A / 1.5kW	20.5A / 2.2kW	26A / 3kW	35A / 3.73kW	39A / 5kW	33A / 4kW
16A / 4kW	23A / 5.5kW	27A / 7,5kW	35A / 9kW	39A / 11kW	44A / 11kW
16A / 7.5kW	22A / 11kW	26A / 11kW	32A / 15kW	38A / 18.5kW	40A / 20kW
15A / 7.5kW	21A / 11kW	21A / 11kW	32A / 15kW	38A / 22kW	40A / 22kW
13A / 7.5kW	19A / 11kW	21A / 11kW	30A / 18.5kW	33A / 22kW	35A / 22kW
10A / 7.5kW	14A / 11kW	19A / 11kW	23A / 18.5kW	25.2A / 22kW	26A / 22kW
690	690	690	690	690	690
600	600	600	660	660	600
10/2.5	10/2.5	10/2.5	10/2.5	10/2.5	10/2.5
6	6	6	6	6	6
3	3	3	3	3	3
1.9	1.9	1.9	1.9	1.9	1.9
1.5	1.5	1.5	1.5	1.5	1.5
0.55	0.55	0.55	0.55	0.55	0.55
0.27	0.27	0.27	0.27	0.27	0.27
1200	1200	1200	1200	1200	1200
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
1	1	1	1	1	1
0	1	1	1	1	1
0.3	0.4	0.4	0.7	0.7	0.8
45	55	55	55	58	69
70	72	72	72	94.5	99
82	92	92	92	111.7	111.7
35	45	45	45	50	60
55	55	55	55	75	80

Contactors

References*		EW050	EW063	EW070	
					
Main contact					
Rated insulation voltage U_i (V)		660	660	660	
Rated operational voltage U_e (V)		660	660	660	
Thermal current I_{th} AC1 (A)		70	80	100	
Main contact rated operational current AC-3 I_e	Single pole	110V	-	50A / 3kW	60A / 4kW
		220V	-	45A / 6kW	55A / 7.5kW
	Three pole	220/230V	55A / 15kW	65A / 18.5kW	75A / 22kW
		380/400V	55A / 25kW	64A / 30kW	72A / 37kW
		415/440V	52A / 30kW	64A / 37kW	70A / 40kW
		500V	45A / 30kW	55A / 37kW	65A / 45kW
		660V	35A / 30kW	45A / 37kW	60A / 45kW
Auxiliary contact					
Rated insulation voltage U_i (V)		660	660	660	
Rated operational voltage U_e (V)		600	600	600	
Thermal current I_{th} AC/DC (A)		10/2.5	10/2.5	10/2.5	
Auxiliary contact rated current I_e	AC 15	120V	6	6	6
		240V	3	3	3
		380V	1.9	1.9	1.9
		480V	1.5	1.5	1.5
	DC 13	125V	0.55	0.55	0.55
		250V	0.27	0.27	0.27
		Contactor life			
Operation frequency (cycles/hour)		1200	1200	1200	
Electrical lifespan (cycles)		1,000,000	1,000,000	1,000,000	
Mechanical lifespan (cycles)		10,000,000	10,000,000	10,000,000	
Others					
Type of auxiliary contact	NO	2	2	2	
	NC	2	2	2	
Weight (kg)		1.3	1.3	1.3	
Dimensions (mm)					
		a	93.5	93.5	93.5
		b	116	116	150 (with Cu terminals)
		c	123	123	123
		d	80	80	80
		e	90	90	90

* **Note:** Control circuit rated operational voltage
 C: 220V AC 50/60Hz (EW007_C ~ EW300_C)

D: 380V AC 50/60Hz (EW007_D ~ EW300_D)
 E: 24V DC 50/60Hz (EW007_E ~ EW090_E)
 F: 48V DC 50/60Hz (EW007_F ~ EW090_F)
 H: 110V AC 50/60Hz (EW007_H ~ EW090_H)

J: 230V AC 50Hz (EW007_J ~ EW300_J)
 K: 24V AC 50/60Hz (EW007_K ~ EW300_K)
 L: 400V AC 50/60Hz (EW007_L ~ EW090_L)
 M: 415V AC 50Hz (EW007_M ~ EW090_M)

EW090	EW115	EW138	EW150	EW180	EW220	EW300
660	1000	1000	1000	1000	1000	1000
660	690	690	690	690	690	690
135	135	150	200	240	260	350
-	-	-	-	-	-	-
-	-	-	-	-	-	-
85A / 25kW	115A / 30kW	138A / 40kW	150A / 45kW	182A / 55kW	225A / 65kW	300A / 90kW
85A / 45kW	115A / 60kW	138A / 75kW	147A / 80kW	179A / 95kW	225A / 120kW	300A / 160kW
85A / 51kW	105A / 60kW	135A / 75kW	131A / 80kW	178A / 100kW	220A / 132kW	300A / 160kW
80A / 55kW	93A / 65kW	105A / 75kW	129A / 90kW	156A / 110kW	190A / 132kW	250A / 160kW
65A / 55kW	75A / 65kW	85A / 75kW	107A / 100kW	118A / 110kW	140A / 132kW	220A / 220kW
660	660	660	660	660	660	660
600	660	660	660	660	660	660
10/2.5	10/2.5	10/2.5	10/2.5	10/2.5	10/2.5	10/2.5
6	6	6	6	6	6	6
3	3	3	3	3	3	3
1.9	1.9	1.9	1.9	1.9	1.9	1.9
1.5	1.5	1.5	1.5	1.5	1.5	1.5
0.55	0.55	0.55	0.55	0.55	0.55	0.55
0.27	0.27	0.27	0.27	0.27	0.27	0.27
1200	1200	1200	1200	1200	1200	1200
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
2	2	2	2	2	2	2
2	2	2	2	2	2	2
1.3	1.9	1.9	4.1	4.1	6.7	6.7
93.5	100	100	130	130	146	146
150 (with Cu terminals)	139	139	180	180	210	210
123	133	133	157.2	157.2	183.2	183.2
80	83	83	100	100	133	133
90	110	110	130	130	150	150



EWT...B



EWT...E



EWT...G

Designation	Characteristics	Cat. ref.
Thermal overload relays	Setting range:	
- for EW007 to EW032	0.1 - 0.16A	EWT001B
	0.16 - 0.25A	EWT002B
	0.35 - 0.5A	EWT005B
	0.45 - 0.63A	EWT006B
	0.55 - 0.8A	EWT008B
	0.9 - 1.3A	EWT013B
	1.1 - 1.6A	EWT016B
	1.4 - 2A	EWT020B
	1.8 - 2.5A	EWT025B
	2.3 - 3.2A	EWT032B
	2.9 - 4A	EWT040B
	3.5 - 4.8A	EWT048B
	4.5 - 6.3A	EWT063B
	5.5 - 7.5A	EWT075B
	7.2 - 10A	EWT100B
	9 - 12.5A	EWT125B
	11.3 - 16A	EWT160B
	15 - 20A	EWT200B
	17.5 - 21.5A	EWT215B
	21 - 25A	EWT250B
	24.5 - 30A	EWT300B
- for EW038	15 - 20A	EWT200C
	17.5 - 21.5A	EWT215C
	21 - 25A	EWT250C
	24.5 - 30A	EWT300C
	29 - 36A	EWT360C
	33 - 38A	EWT380C
- for EW020 to EW032	17 - 25A	EWT250D
- for EW040	17 - 25A	EWT250E
	24.5 - 36A	EWT360E
	35 - 47A	EWT470E
- for EW050 to EW090	24,5 - 36A	EWT360G
	35 - 47A	EWT470G
	45 - 60A	EWT600G
	58-75A	EWT750G
	72 - 90A	EWT900G
- for EW038	17 - 25A	EWT250H
	24.5 - 36A	EWT360H
	35 - 47A	EWT470H



EWT...F



EWA601



EWA501

Designation	Characteristics	Cat. ref.
Separated thermal overload relays connection with wires	Setting range: 17 - 25A	EWT250F
	24.5 - 36A	EWT360F
	35 - 47A	EWT470F
	45 - 60A	EWT600F
	58 - 75A	EWT750F
	72 - 90A	EWT900F
Current transformers	Ratio: 150A / 5A	EWA601
	250A / 5A	EWA602
	350A / 5A	EWA603
External mounting block for thermal relays assembly	for EWT...B series	EWA501

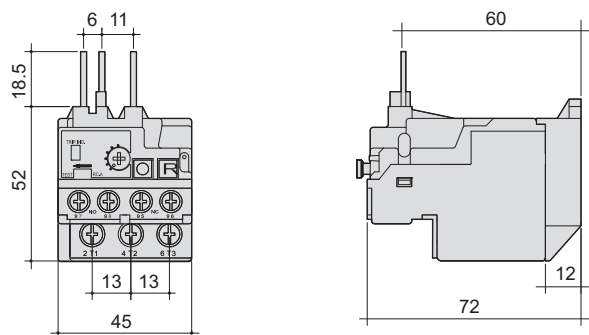
Product combination



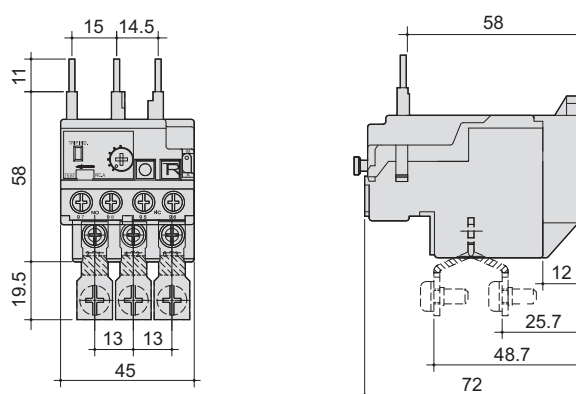
Setting range	Current transformer	Base	Thermal overload relay
87 - 120A	EWA601	EWA501	EWT040B
105 - 144A	EWA601	EWA501	EWT048B
135 - 150A	EWA601	EWA501	EWT063B
175 - 240A	EWA602	EWA501	EWT048B
225 - 250A	EWA602	EWA501	EWT063B
245 - 336A	EWA603	EWA501	EWT048B

	Designation	Characteristics	Cat. ref.
 EWA001	Auxiliary contacts		
	- for EW007 to EW090 installation on the top	1NO + 1NC	EWA001
		2NO	EWA002
		2NC	EWA003
		4NO	EWA004
		4NC	EWA005
		3NO + 1NC	EWA006
		2NO + 2NC	EWA007
		1NO + 3NC	EWA008
	 EWA007	- for EW007 to EW040 installation on the side	1 NO + 1NC
- for EW115 to EW300 installation on the side		1 NO + 1NC	EWA010
 EWA101	Interlocks		
	- for EW007 to EW038	mechanical	EWA101
		mechanical and electrical	EWA102
	- for EW040 to EW090	mechanical	EWA103
 EWA102	- for EW100 to EW300	mechanical	EWA104
	Surge suppressors		
 EWA401	for EW007 to EW090 rheostat type drop-out time < 40ms	voltage: 24V, current rating: 28.5 - 38.5mA	EWA401
		voltage: 48V, current rating: 56.5 - 76.5mA	EWA402
		voltage: 110V, current rating: 36.1 - 48.9mA	EWA403
		voltage: 220V, current rating: 23.1 - 31.1mA	EWA404

EWT...B

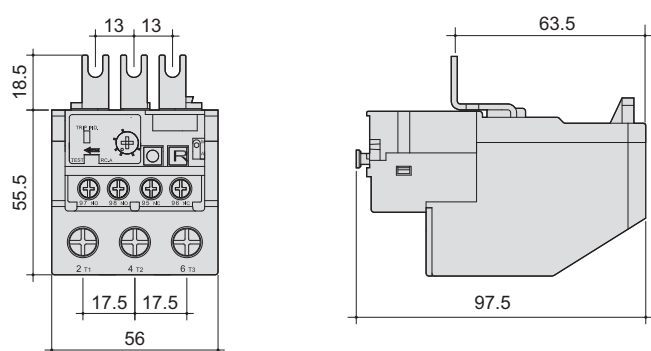


EWT...C

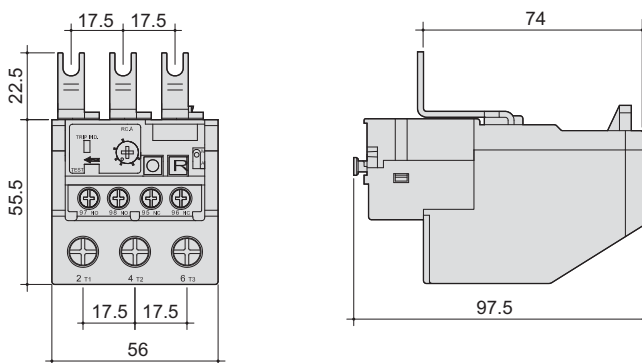


Extension terminal applicable for thermal relay above 36A.

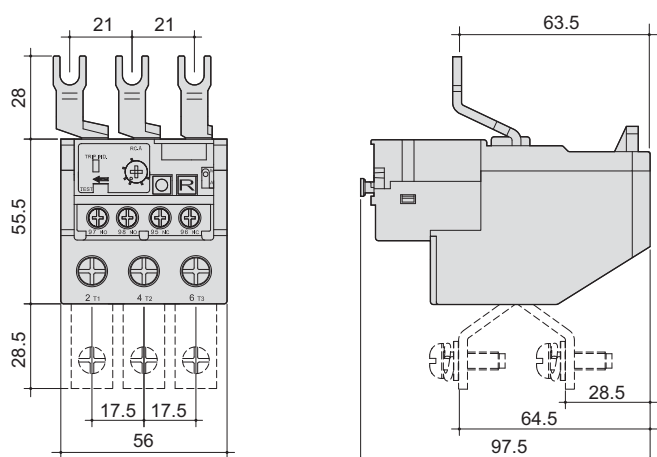
EWT...D



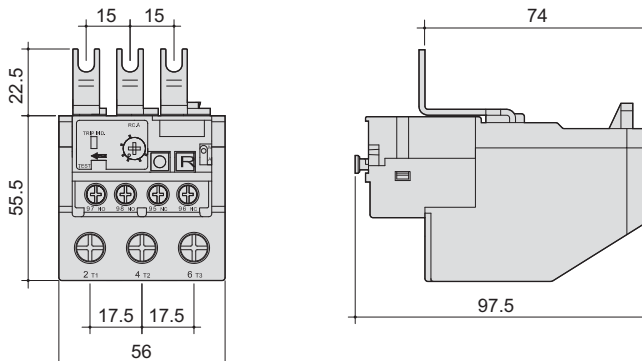
EWT...E



EWT...G

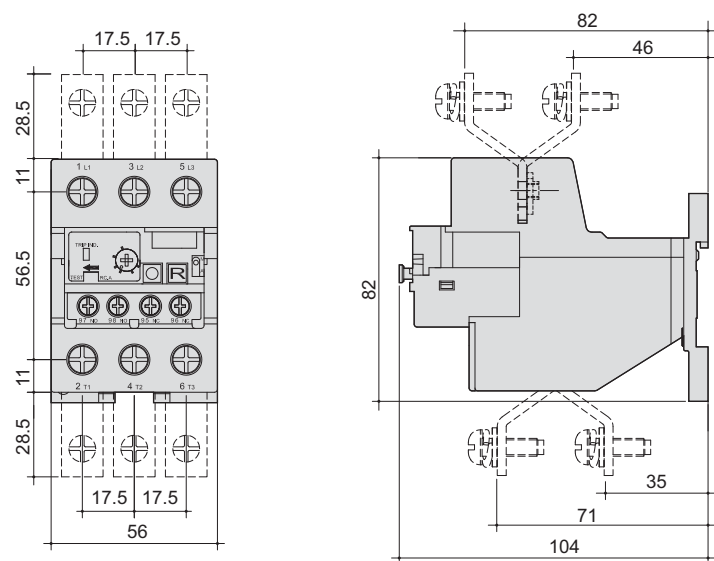


EWT...H



Extension terminal applicable for thermal relay above 50A.

EWT...F



Extension terminal applicable for thermal relay above 50A.

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