



U & N Series

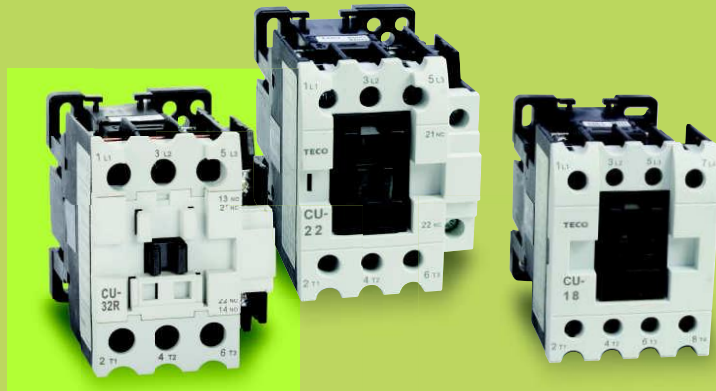
AC Motor Controls



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5 Features



1 High Performance



- Comply with IEC 60947, UL 508
CSA C22.2, GB 14048
- Electrical Lifespan : 1M Operation

2 High Reliability



- Dual Points Aux. Contact Design

3 Safety



- V-0 Flame Retardant Materials in Casing
- IP-20 Finger Protection Terminals

4 Green Products



- Compliance with RoHS
- Environmentally Friendly Materials

5 Universal Design



- New Appearance with Streamline Front Cover Design
- Approvals :    

Certificates

Certificates

Catalogue number	Canada	Canada & U.S.A		Germany	EC Declaration of conformity
					
Miniature Contactors					
CN-5	•		•	•	•
CN-5K	•		•		•
CN-6	•		•	•	•
CN-6K	•		•		•
CNL-5	•		•	•	•
CNL-5K	•		•		•
CNL-6	•		•	•	•
CNL-6K	•		•		•
U Series IEC Contactors					
CU-9	•		•	•	•
CU-11	•		•	•	•
CU-16	•		•	•	•
CU-18	•		•	•	•
CU-18/4P			•		
CU-22	•		•	•	•
CU-22/4P	•		•		
CU-32R					
CU-38	•		•		•
CU-40	•		•	•	•
CU-50	•		•	•	•
CU-65	•		•	•	•
CU-80	•		•	•	•
CU-90					
CUL-90	•		•	•	•
CUL-11	•		•	•	•
CUL-16	•		•	•	•
CUL-18	•		•	•	•
CUL-18/4P			•		
CUL-22	•		•	•	•
CUL-22/4P	•		•		
CUL-32R					
CUL-38	•		•		
CUL-40	•		•	•	•
CUL-50	•		•	•	•
CUL-65	•		•	•	•
CUL-80	•		•	•	•
CUL-90					
N Series IEC Contactors					
CN-100R			•		•
CN-125R			•		•
CN-150	•		•	•	•
CN-180	•		•	•	•
CN-220	•		•		•
CN-300	•		•		•
CN-400(K)					•
CN-500(K)					•
CN-630(K)					•
CNL-100R			•		•
CNL-125R			•		•
CNL-150	•		•		•
CNL-180	•		•		•
CNL-220	•		•		•
CNL-300	•		•		•

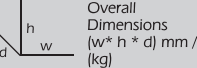
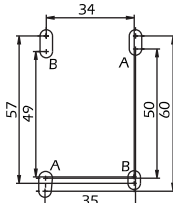
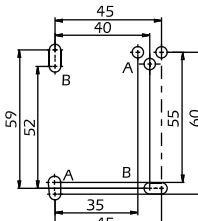
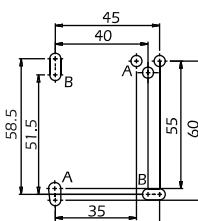
Certificates

Catalogue number	Canada	Canada & U.S.A		Germany	EC Declaration of conformity
					
RHU / RHN Series Thermal Overload Relays					
RHU-5	•		•		•
RHU-10	•		•		•
RHU-80/P			•		•
RHN-180/P	•		•		
D.O.L. Magnetic Starters					
HUE-11/16				•	•
HUEB-11/16				•	•
HUF-11/16/18				•	•
HUFB-11/16/18				•	•
Definite Purpose Contactors					
DPA-10	•	•			•
DPA-15	•	•			•
DPA-20	•	•			•
DPA-30	•	•			•
Accessories					
CUA-2	•		•	•	•
CUA-4	•		•	•	•
CNA-2M	•		•	•	•
CNA-4M	•		•	•	•
CNA-110	•		•	•	•
CNA-111B(C)	•		•	•	•
CNA-111SR	•		•	•	•
RAU-4	•		•		
RAM-4	•		•		•
RAM-4K	•		•		•
CNI-18	•		•		
CNE-1/(S)(C)	•				
CSS-1/2(S)			•		

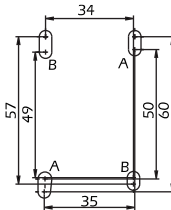
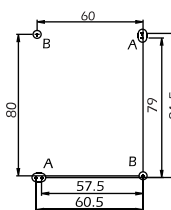
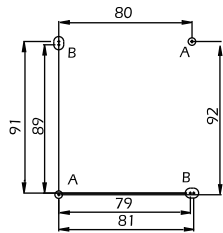
CU、CN Series IEC Contactors

Catalogue number			Non-reversing type		CN-5(K)			CN-6(K)			CU-9			CU-11		
			Pin		CN-5P(K)			CN-6P(K)			CUL-9			CUL-11		
					CNL-5(K)			CNL-6(K)								
			Reversing type													
Rated Insulation Voltage (Ui) IEC V					690						690			690		
Rated Operational Voltage (Ue) IEC V					690						690			690		
Thermal Current (Ith) IEC/UL A					20/20						25/24			25/24		
					A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	8	0.37	0.5	10.5	0.55	0.75	10.5	0.55	0.75	10.5	0.55	0.75
				220V	7	0.75	1	10	1.1	1.5	10.5	1.1	1.5	10.5	1.1	1.5
			Three phase	220/230V	7.5	1.5	2	10.1	2.2	3	11.5	2.5	3.5	12	3	4
				380/400V	7	3	4	9	4	5.5	11	4	5.5	12	5.5	7.5
				415V	6.5	3	4	8.5	4	5.5	10	4	5.5	11	5.5	7.5
				440V	6	3	4	8	4	5.5	9	4	5.5	11	5.5	7.5
				500V	5	3	4	6.5	4	5.5	8	4	5.5	9	5.5	7.5
				660V	4	3	4	5	4	5.5	6	4	5.5	7	5.5	7.5
690V	4	3	4	5	4	5.5	6	4	5.5	7	5.5	7.5				
Rated Power Capacities (Ie) AC3 UL 508			Single	110-120V	—	—	—	—	—	—	13.8	—	0.75	16	—	1
				220-240V	—	—	—	—	—	—	12	—	2	12	—	2
			Three phase	200-208V	7.5	—	2	11	—	3	12	—	3	18	—	5
				220-240V	6.8	—	2	9.6	—	3	9.6	—	5	15.2	—	5
				440-480V	4.8	—	3	7.6	—	5	7.6	—	5	11	—	7.5
				550-600V	3.9	—	3	6.1	—	5	6	—	7.5	11	—	10
NEMA Class				00						0			0			
Contact Configuration		Non-reversing		3A1a or 3A1b						3A1a ,3A1b,4A			3A1a ,3A1b,4A			
		Reversing		3A1a x 2 or 3A1b x 2						3A1a x 2 or 3A1b x 2			3A1a x 2 or 3A1b x 2			
Electrical Durability (ops) AC-3					1M			1M			1M			1M		
Mechanical Durability (ops)					5M			5M			5M			5M		
Operating Temperature (°C)					-20°C~55°C (non frozen or non dew)											
Contact Capacities		Rated Insulation Voltage (Ui) V			690/600											
		Thermal Current AC/DC (Ith) A			10/2.5											
		Rated Operational Current Ie(A)	AC 15	120V	6											
				240V	3											
380V	1.9															
h w d Overall Dimensions (w* h * d) mm / (kg)			Non-reversing		45 * 58 * 54 / 0.18						45*70 *82 / 0.3			45*70*82 / 0.3		
					45 * 58 * 54 / 0.18											
			Reversing		100 * 58 * 54 / 0.4						100*70 *82 / 0.65			100*70 *82 / 0.65		
Installation information																

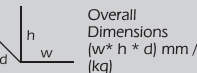
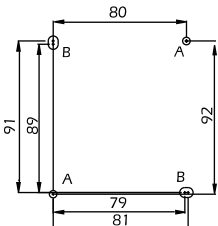
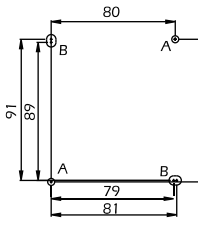
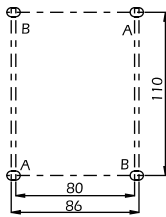
CU、CN Series IEC Contactors

Catalogue number			Non-reversing type		CU-16			CU-18			CU-22			CU-32R					
																			
			Reversing type		CUL-16			CUL-18			CUL-22			CUL-32R					
																			
Rated Insulation Voltage (Ui) IEC					V			690			1000			1000					
Rated Operational Voltage (Ue) IEC					V			690			690			690					
Thermal Current (Ith) IEC/UL					A			25/32			35/35			40/40					
					A			kW			Hp			A					
Rated Power Capacities (Ie) AC3 IEC 60947-4-1					Single		110V	13.5	0.75	1	19.5	1.1	1.5	25.5	1.5	2	35	1.5	2
							220V	14	1.5	2	20.5	2.2	3	26	3	4	35	3.7	5
					Three phase		220/230V	16	4	5.5	23	5.5	7.5	27	7.5	10	35	9	12
							380/400V	16	7.5	10	22	11	15	26	11	15	32	15	20
							415V	15	7.5	10	21	11	15	21	11	15	32	15	20
							440V	15	7.5	10	21	11	15	21	11	15	32	15	20
							500V	13	7.5	10	19	11	15	19	11	15	30	18.5	25
							660V	10	7.5	10	14	11	15	14	11	15	23	18.5	25
Rated Power Capacities (Ie) AC3 UL 508					Single		110-120V	20	—	1.5	24	—	2	24	—	2	24	—	2
							220-240V	17	—	3	17	—	3	28	—	5	28	—	5
					Three phase		200/208V	18	—	5	26	—	7.5	26	—	7.5	25.3	—	7.5
							220-240V	15.2	—	5	22	—	7.5	28	—	10	28	—	10
							440-480V	14	—	10	21	—	15	27	—	20	27	—	20
							550-600V	11	—	10	17	—	15	22	—	20	27	—	25
NEMA Class					0			1			1			2					
Contact Configuration			Non-reversing		3A1a ,3A1b,4A			3A1a1b, 3A2a			3A1a1b, 3A2a			3A1a1b, 3A2a					
			Reversing		3A1a x 2 or 3A1b x 2			3A1a1b x 2			3A1a1b x 2			3A1a1b x 2					
Electrical Durability (ops) AC-3					1M			1M			1M			1M					
Mechanical Durability (ops)					5M			5M			5M			5M					
Operating Temperature (°C)					- 20°C ~ 55°C (non frozen or non dew)														
Contact Capacities			Rated Insulation Voltage (Ui)		V			690/600											
			Thermal Current AC/DC (Ith)		A			10/2.5											
			Rated Operational Current Ie(A)		AC 15		120V		6										
							240V		3										
							380V		1.9										
			Non-reversing		45*70*82 / 0.3			55*72*92 / 0.4						55*75*92 / 0.4					
			Reversing		100*70*82 / 0.65			120*72*92 / 0.85						110*75*92 / 0.85					
Installation information																			

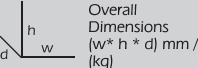
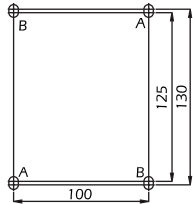
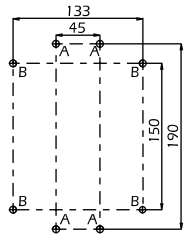
CU、CN Series IEC Contactors

Catalogue number			Non-reversing type		CU-38			CU-40			CU-50			CU-65		
																
			Reversing type		CUL-38			CUL-40			CUL-50			CUL-65		
																
Rated Insulation Voltage (Ui) IEC V					1000			1000			1000			1000		
Rated Operational Voltage (Ue) IEC V					690			690			690			690		
Thermal Current (Ith) IEC/UL A					60/55			60/60			70/72			80/85		
					A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	39	2.2	3	43	2.2	3	48	3	4	50	3	4
				220V	39	5	7	43	5.5	7.5	48	6	8	50	6	8
			Three phase	220/230V	39	11	15	44	11	15	55	15	20	65	18.5	25
				380/400V	38	18.5	25	40	20	27	55	25	35	64	30	40
				415V	38	22	30	40	22	30	52	25	35	64	33	45
				440V	38	22	30	40	22	30	52	30	40	64	37	50
				500V	33	22	30	35	22	30	45	30	40	55	37	50
				660V	25.2	22	30	26	22	30	35	30	40	45	37	50
690V	24.2	22	30	26	22	30	35	30	40	45	37	50				
Rated Power Capacities (Ie) AC3 UL 508			Single	110-120V	34	—	3	34	—	3	56	—	5	56	—	5
				220-240V	40	—	7.5	40	—	7.5	50	—	10	68	—	15
			Three phase	200/208V	32.2	—	10	49	—	15	49	—	15	63	—	20
				220-240V	42	—	15	42	—	15	54	—	20	68	—	25
				440-480V	40	—	30	40	—	30	52	—	40	65	—	50
				550-600V	32	—	30	41	—	40	52	—	50	62	—	60
NEMA Class					2			2			2			3		
Contact Configuration		Non-reversing		3A1a1b			3A1a1b			3A2a2b			3A2a2b			
		Reversing		3A1a1bx2			3A1a1bx2			3A2a2bx2			3A2a2bx2			
Electrical Durability (ops) AC-3					1M			1M			1M			1M		
Mechanical Durability (ops)					5M			5M			5M			5M		
Operating Temperature (°C)					-20°C~55°C (non frozen or non dew)											
Contact Capacities		Rated Insulation Voltage (Ui) V		690/600												
		Thermal Current AC/DC (Ith) A		10/2.5												
		Rated Operational Current Ie(A)	AC 15	120V	6											
				240V	3											
380V	1.9															
		Overall Dimensions (w* h * d) mm / (kg)		Non-reversing			69*99*111.7 / 0.8			93.5*116*123 / 1.3						
		Reversing		126*94.3 *111.7 / 1.45			148*99*111.7 / 1.77			235*150 *127 / 3.5						
Installation information																

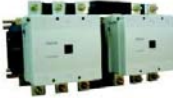
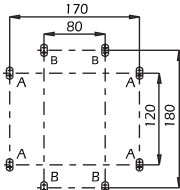
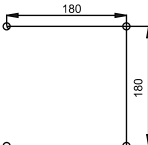
CU、CN Series IEC Contactors

Catalogue number			Non-reversing type		CU-80			CU-90			CN-100R			CN-125R		
																
			Reversing type		CUL-80			CUL-90			CNL-100R			CNL-125R		
																
Rated Insulation Voltage (Ui) IEC V					1000			1000			1000			1000		
Rated Operational Voltage (Ue) IEC V					690			690			690			690		
Thermal Current (Ith) IEC/UL A					100/104			135/120			135/130			150/150		
					A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	60	4	5.5	—	—	—	—	—	—	—	—	—
				220V	55	7.5	10	—	—	—	—	—	—	—	—	—
			Three phase	220/230V	75	22	30	85	25	35	115	30	40	138	40	54
				380/400V	72	37	50	85	45	60	115	60	80	138	75	100
				415V	72	40	54	85	45	60	105	60	80	138	75	100
				440V	70	40	54	85	51	70	105	60	80	135	75	100
				500V	65	45	60	80	55	75	93	65	85	105	75	100
				660V	60	45	60	65	55	75	75	65	85	85	75	100
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	80	—	7.5	80	—	7.5	100	—	10	—	—	—		
		220-240V	68	—	15	68	—	15	68	—	15	—	—	—		
	Three phase	200/208V	79	—	25	79	—	25	92	—	30	120	—	40		
		220-240V	80	—	30	80	—	30	104	—	40	130	—	50		
		440-480V	77	—	60	77	—	60	96	—	75	124	—	100		
		550-600V	62	—	60	77	—	75	99	—	100	99	—	100		
NEMA Class				2			3			4						
Contact Configuration		Non-reversing		3A2a2b			3A2a2b			3A2a2b (Max. 3A4a4b)						
		Reversing		3A2a2bx2			3A2a2bx2			3A2a2b x 2 (Max. 3A3a3bx2)						
Electrical Durability (ops) AC-3					1M			1M			1M					
Mechanical Durability (ops)					5M			5M			5M					
Operating Temperature (°C)					-20°C~55°C (non frozen or non dew)											
Contact Capacities		Rated Insulation Voltage (Ui) V			690/600											
		Thermal Current AC/DC (Ith) A			10/2.5											
		Rated Operational Current Ie(A)	AC 15	120V	6											
				240V	3											
380V	1.9															
 Overall Dimensions (w* h * d) mm / (kg)			Non-reversing		93.5*150*123 / 1.3			93.5*150*123 / 1.3			100*150*140~150 / 2.2					
			Reversing		235*150 *127 / 3.5			235*150*127 / 3.5			240*180*136.2 / 3.8					
Installation information																

CU、CN Series IEC Contactors

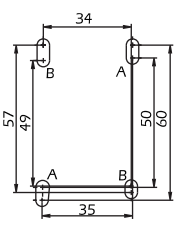
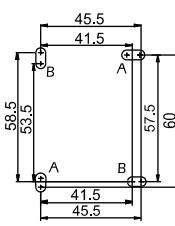
Catalogue number	Non-reversing type		CN-150			CN-180			CN-220			CN-300		
														
	Reversing type		CNL-150			CNL-180			CNL-220			CNL-300		
														
Rated Insulation Voltage (Ui) IEC V			1000			1000			1000			1000		
Rated Operational Voltage (Ue) IEC V			690			690			690			690		
Thermal Current (Ith) IEC/UL A			200/200			240/240			260/260			350/350		
			A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
Rated Power Capacities (Ie) AC3 IEC 60947-4-1	Single	110V	—	—	—	—	—	—	—	—	—	—	—	—
		220V	—	—	—	—	—	—	—	—	—	—	—	—
	Three phase	220/230V	150	45	60	182	55	75	225	65	85	300	90	120
		380/400V	147	80	110	179	95	125	225	120	160	300	160	220
		415V	138	80	110	182	100	136	220	125	170	300	160	220
		440V	131	80	110	182	110	150	220	132	180	300	160	220
		500V	129	90	125	156	110	150	190	132	180	250	160	220
		660V	107	100	136	118	110	150	140	132	180	220	220	270
690V	107	100	136	118	110	150	140	132	180	220	220	270		
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	—	—	—	—	—	—	—	—	—	—	—	—
		220-240V	—	—	—	—	—	—	—	—	—	—	—	—
	Three phase	200/208V	150	—	50	177	—	60	221	—	75	285	—	100
		220-240V	154	—	75	192	—	75	248	—	100	312	—	125
		440-480V	156	—	125	180	—	150	240	—	200	302	—	250
		550-600V	125	—	125	144	—	150	192	—	200	242	—	250
NEMA Class		4												
Contact Configuration	Non-reversing		3A2a2b (Max. 3A4a4b)											
	Reversing		3A2a2b x 2 (Max. 3A3a3bx2)											
Electrical Durability (ops) AC-3			1M						1M					
Mechanical Durability (ops)			5M						5M					
Operating Temperature (°C)			-20°C~55°C (non frozen or non dew)											
Contact Capacities	Rated Insulation Voltage (Ui) V		690/600											
	Thermal Current AC/DC (Ith) A		10/2.5											
	Rated Operational Current Ie(A)	120V	6											
		240V	3											
		380V	1.9											
	Non-reversing		146 *222.4 *157.2 / 4.1						146*228.4*183.2 / 6.7					
	Reversing		375 *255 *160.4 / 10.8						375 *255 *186.4 / 15					
Installation information														

CU、CN Series IEC Contactors

Catalogue number			Non-reversing type		CN-400(K)-R			CN-500(K)			CN-630(K)			
														
			Reversing type		CNL-400(K)-R			CNL-500(K)			CNL-630(K)			
														
Rated Insulation Voltage (Ui) IEC V			1000			1000			1000					
Rated Operational Voltage (Ue) IEC V			690			690			690					
Thermal Current (Ith) IEC/UL A			450/—			550/—			660/—					
			A	kW	Hp	A	kW	Hp	A	kW	Hp			
Rated Power Capacities (Ie) AC3 IEC 60947-4-1	Single	110V	—	—	—	—	—	—	—	—	—			
		220V	—	—	—	—	—	—	—	—	—			
	Three phase	220/230V	400	110	150	500	150	205	630	200	270			
		380/400V	400	200	270	500	257	350	630	335	450			
		415V	400	220	300	460	257	350	600	355	480			
		440V	400	220	300	430	257	350	600	375	500			
		500V	375	257	350	410	280	380	525	355	480			
		660V	330	300	410	355	335	450	460	450	610			
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	—	—	—	—	—	—	—	—	—			
		220-240V	—	—	—	—	—	—	—	—	—			
	Three phase	200/208V	—	—	—	—	—	—	—	—	—			
		220-240V	—	—	—	—	—	—	—	—	—			
		440-480V	—	—	—	—	—	—	—	—	—			
NEMA Class			4											
Contact Configuration	Non-reversing		3A2a2b (Max. 3A4a4b)											
	Reversing		3A2a2b x 2 (Max. 3A4a4b x 2)											
Electrical Durability (ops) AC-3			0.5M											
Mechanical Durability (ops)			1M											
Operating Temperature (°C)			-20°C~55°C (non frozen or non dew)											
Contact Capacities	Rated Insulation Voltage (Ui) V		690/600											
	Thermal Current AC/DC (Ith) A		10/2.5											
	Rated Operational Current Ie(A)	AC 15	120V	6										
			240V	3										
			380V	1.9										
		Non-reversing	233*238*232 / 10.8						309*304 *255 / 17.4					
		Reversing	485*238*232 / 22.9						636*304*255 / 38.8					
Installation information														

CU、CN Series IEC Contactors

4 - pole

Catalogue number			CU-10/4P		CU-18/4P		CU-22/4P	
								
Rated Insulation Voltage (Ui) IEC V			690		1000		1000	
Rated Operational Voltage (Ue) IEC V			660		660		660	
Thermal Current (Ith) IEC/UL A			25/24		35/35		40/40	
			A (AC1)	KW (AC1)	A (AC1)	KW (AC1)	A (AC1)	KW (AC1)
Rated Power Capacities (Ie) AC3 IEC 60947-4-1	Single	110V	25	2.7	35	3.9	40	4.3
		220V	25	5.5	35	8	40	8.8
	Three phase	220V	25	9.5	35	13	40	15
		380V	25	16	35	23	40	26
		415V	25	18	35	25	40	28
		440V	25	19	35	27	40	29
		500V	—	—	—	—	—	—
		660/690V	—	—	—	—	—	—
Contact Configuration		4A		4A or 2A2B				
Electrical Durability (ops) AC-3		1M		1M				
Mechanical Durability (ops)		5M		5M				
Operating Temperature (°C)			-20°C~55°C (non frozen or non dew)					
Contact Capacities	Rated Insulation Voltage (Ui) V		690/600					
	Rated Insulation Voltage (Ue) V		660/600					
	Thermal Current AC/DC (Ith) A		10/2.5					
	Rated Operational Current Ie(A)	AC 15 /A600	120V	6				
			240V	3				
			380V	1.9				
 Overall Dimensions (w* h * d) mm / (kg)		Non-reversing	45*70*52 / 0.3		55*72*92 / 0.4			
Installation information								

H Series Magnetic Starters



HUO-18



HUE-11

Catalogue number	Enclosure		HU-11			HU-16			HU-18			HU-22			HU-32R			HU-38					
	IP 00		HUO-11			HUO-16			HUO-18			HUO-22			HUO-32R			HUO-38					
	IP 40		HUE-11			HUE-16			—			—			—			—					
	IP 42		HUP-11			HUP-16			HUP-18			HUP-22			—			—					
	IP 65		HUF-11			HUF-16			HUF-18			HUF-22			—			—					
Rated Insulation Voltage (Ui) IEC V			690			690			1000			1000			1000			1000					
Rated Operational Voltage (Ue) IEC V			690			690			690			690			690			690					
Thermal Current (Ith) IEC/UL A			25/24			25/32			35/35			40/40			60/50			60/55					
			A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp			
Rated Power Capacities (Ie) AC3 IEC 60947-4-1	Single	110V	10.5	0.55	0.75	13.5	0.75	1	19.5	1.1	1.5	25.5	1.5	2	35	1.5	2	39	2.2	3			
		220V	10.5	1.1	1.5	14	1.5	2	20.5	2.2	3	26	3	4	35	3.7	5	39	5	7			
	Three phase	220/230V	12	3	4	16	4	5.5	23	5.5	7.5	27	7.5	10	35	9	12	39	11	15			
		380/400V	12	5.5	7.5	16	7.5	10	22	11	15	26	11	15	32	15	20	38	18.5	25			
		415V	11	5.5	7.5	15	7.5	10	21	11	15	21	11	15	32	15	20	38	22	30			
		440V	11	5.5	7.5	15	7.5	10	21	11	15	21	11	15	32	15	20	38	22	30			
		500V	9	5.5	7.5	13	7.5	10	19	11	15	19	11	15	30	18.5	25	33	22	30			
		660V	7	5.5	7.5	10	7.5	10	14	11	15	14	11	15	23	18.5	25	25.2	22	30			
		690V	7	5.5	7.5	10	7.5	10	14	11	15	14	11	15	22	18.5	25	24.2	22	30			
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	16	—	1	20	—	1.5	24	—	2	24	—	2	24	—	2	34	—	3			
		220-240V	12	—	2	17	—	3	17	—	3	28	—	5	28	—	5	40	—	7.5			
	Three phase	200/208V	18	—	5	18	—	5	26	—	7.5	26	—	7.5	25.3	—	7.5	32.2	—	10			
		220-240V	15.2	—	5	15.2	—	5	22	—	7.5	28	—	10	28	—	10	42	—	15			
		440-480V	11	—	7.5	14	—	10	21	—	15	27	—	20	27	—	20	40	—	30			
		550-600V	11	—	10	11	—	10	17	—	15	22	—	20	27	—	25	32	—	30			
For use with Thermal overload relays			RHU-10/□1			RHU-10/□1			RHU-10/□1 RHU-80/□1			RHU-10/□1 RHU-80/□1			RHU-10/□1 RHU-80/□1			RHU-10/□2 RHU-80/□4					
For use with contactors			CU-11			CU-16			CU-18			CU-22			CU-32R			CU-38					
Contact Configuration			3A1a or 3A1b						3A1a1b														
Electrical Durability (ops)			1M						1M														
Mechanical Durability (ops)			5M						5M														
 Overall Dimensions (w* h * d) mm / (kg)	Enclosure		88*162.6*106 / 0.85						100*170.6*111 / 0.85						100*170.6*111 / 1.0						130*240*128.5 / 1.0		
	IP 00		46*119*82 / 0.5						55*124.3*92 / 0.8						55*143.5*91.4 / 1.0						58*146.2*111.7 / 1.0		
	IP 40		88*160*94 / 0.85						—						—						—		
	IP 42		—						—						—						—		
	IP 65		90*184*106 / 0.8						100*194*116.5 / 0.9						100*194*116.5 / 1.0						—		

H Series Magnetic Starters



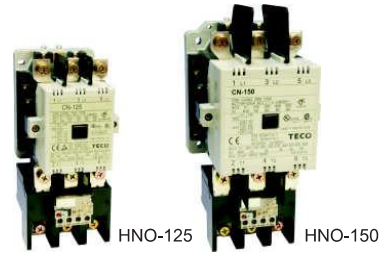
HUO-40



HUO-65

Catalogue number			Enclosure			HU-40			HU-50			HU-65			HU-80			HU-90			HN-100		
			IP 00			HUO-40			HUO-50			HUO-65			HUO-80			HUO-90			HNO-100		
			IP 40			—			—			—			—			—			—		
			IP 42			—			—			—			—			—			—		
			IP 65			—			—			—			—			—			—		
Rated Insulation Voltage (Ui) IEC V			1000			1000			1000			1000			1000			1000					
Rated Operational Voltage (Ue) IEC V			690			690			690			690			690			690					
Thermal Current (Ith) IEC/UL A			60/60			70/72			80/85			100/104			135/120			135/130					
			A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp			
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	43	2.2	3	48	3	4	50	3	4	60	4	5.5	—	—	—	—	—	—	
				220V	43	5.5	7.5	48	6	8	50	6	8	55	7.5	10	—	—	—	—	—	—	
			Three phase	220/230V	44	11	15	55	15	20	65	18.5	25	75	22	30	85	25	35	115	30	40	
				380/400V	40	20	27	55	25	35	64	30	40	72	37	50	85	45	60	115	60	80	
				415V	40	22	30	52	25	35	64	33	45	72	40	54	85	45	60	105	60	80	
				440V	40	22	30	52	30	40	64	37	50	70	40	54	85	51	70	105	60	80	
				500V	35	22	30	45	30	40	55	37	50	65	45	60	80	55	75	93	65	85	
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	34	—	3	56	—	5	56	—	5	80	—	7.5	80	—	7.5	100	—	10			
		220-240V	40	—	7.5	50	—	10	68	—	15	68	—	15	68	—	15	68	—	15			
	Three phase	200/208V	49	—	15	49	—	15	63	—	20	79	—	25	79	—	25	92	—	30			
		220-240V	42	—	15	54	—	20	68	—	25	80	—	30	80	—	30	104	—	40			
		440-480V	40	—	30	52	—	40	65	—	50	77	—	60	77	—	60	96	—	75			
			550-600V	41	—	40	52	—	50	62	—	60	62	—	60	77	—	75	99	—	100		
For use with bimetallic overload relays			RHU-80/□2			RHU-80/□3			RHU-80/□3			RHU-80/□3			RHU-80/□3			RHN-180/□1					
For use with contactors			CU-40			CU-50			CU-65			CU-80			CU-90			CN-100R					
Contact Configuration			3A1a1b			3A2a2b			3A2a2b			3A2a2b			3A2a2b (Max. 3A4a4b)			3A2a2b (Max. 3A4a4b)					
Electrical Durability (ops)			1M			1M			1M			1M			1M			1M					
Mechanical Durability (ops)			5M			5M			5M			5M			5M			5M					
h w d Overall Dimensions (w* h * d) mm / (kg)			Enclosure			130*240*128.5 / 1.0			170*330*151 / 3.5			170*330*151 / 3.5			170*330*151 / 3.5			250*424*172.3 / 5.2					
			IP 00			69*150.5*111.7 / 1.2			93*219.3*123 / 1.8			93*219.3*123 / 1.8			93.5*219.3*123 / 1.8			100*220*133 / 2.4					
			IP 40			—			—			—			—			—					
			IP 42			—			—			—			—			—					
			IP 65			—			—			—			—			—					

H Series Magnetic Starters



Catalogue number	Enclosure		HN-125			HN-150			HN-180			HN-220			HN-300					
	IP 00		HNO-125			HNO-150			HNO-180			HNO-220			HNO-300					
	IP 40		—			—			—			—			—					
	IP 42		—			—			—			—			—					
	IP 65		—			—			—			—			—					
Rated Insulation Voltage (Ui) IEC			V		1000			1000			1000			1000			1000			
Rated Operational Voltage (Ue) IEC			V		690			690			690			690			690			
Thermal Current (Ith) IEC/UL			A		150/150			200/200			240/240			260/260			350/350			
			A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp			
Rated Power Capacities (Ie) AC3 IEC 60947-4-1	Single	110V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		220V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Three phase	220/230V	138	40	54	150	45	60	182	55	75	225	65	85	300	90	120			
		380/400V	138	75	100	147	80	110	179	95	125	225	120	160	300	160	220			
		415V	138	75	100	138	80	110	182	100	136	220	125	170	300	160	220			
		440V	135	75	100	138	80	110	182	110	150	220	132	180	300	160	220			
		500V	105	75	100	129	90	125	156	110	150	190	132	180	250	160	220			
		660V	85	75	100	107	100	136	118	110	150	140	132	180	220	220	270			
690V	85	75	100	107	100	136	118	110	150	140	132	180	220	220	270					
Rated Power Capacities (Ie) AC3 UL 508	Single	110-120V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		220-240V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Three phase	200/208V	120	—	40	150	—	50	177	—	60	221	—	75	285	—	100			
		220-240V	130	—	50	154	—	75	192	—	75	248	—	100	312	—	125			
		440-480V	124	—	100	156	—	125	180	—	150	240	—	200	302	—	250			
		550-600V	99	—	100	125	—	125	144	—	150	192	—	200	242	—	250			
For use with bimetallic overload relays			RHU-80/□5 RHN-180/□1			RHN-180/□2			RHN-180/□3			RHU-10+RP-10+CT RHN-300/□3								
For use with contactors			CN-125R			CN-150			CN-180			CN-220			CN-300					
Contact Configuration			3A2a2b (Max.3A4a4b)																	
Electrical Durability (ops)			1M																	
Mechanical Durability (ops)			5M																	
 Overall Dimensions (w* h * d) mm / (kg)	Enclosure		250*424*172.3 / 5.2			350*550*202.3 / 8.4			350*550*202.3 / 13.5											
	IP 00		100*220*133 / 2.4			130*255.5*157.2 / 4.8			270*370*183.2 / 8.3											
	IP 40																			
	IP 42																			
	IP 65																			

H Series Magnetic Starters

(with Push Button)



HUEB-11

HUFB-18

Catalogue number			IP 40			HUEB-11			HUEB-16			HUB-18			HUB-22			HUB-32R			HUB-40		
			IP 42			HUPB-11			HUPB-16			HUPB-18			HUPB-22			—			—		
			IP 65			HUFB-11			HUFB-16			HUFB-18			HUFB-22			—			—		
Rated Insulation Voltage (Ui) IEC			V			690			690			1000			1000			1000			1000		
Rated Operational Voltage (Ue) IEC			V			690			690			690			690			690			690		
Thermal Current (Ith) IEC/UL			A			25/24			25/32			35/35			40/40			60/55			60/60		
						A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	10.5	0.55	0.75	13.5	0.75	1	19.5	1.1	1.5	25.5	1.5	2	35	1.5	2	43	2.2	3	
				220V	10.5	1.1	1.5	14	1.5	2	20.5	2.2	3	26	3	4	35	3.7	5	43	5.5	7.5	
			Three phase	220V	12	3	4	16	4	5.5	23	5.5	7.5	27	7.5	10	35	9	12	44	11	15	
				380V	12	5.5	7.5	16	7.5	10	22	11	15	26	11	15	32	15	20	40	20	27	
				415V	11	5.5	7.5	15	7.5	10	21	11	15	21	11	15	32	15	20	40	22	30	
				440V	11	5.5	7.5	15	7.5	10	21	11	15	21	11	15	32	15	20	40	22	30	
				500V	9	5.5	7.5	13	7.5	10	19	11	15	19	11	15	30	18.5	25	35	22	30	
				660V	7	5.5	7.5	10	7.5	10	14	11	15	14	11	15	23	18.5	25	26	22	30	
690V	7	5.5	7.5	10	7.5	10	14	11	15	14	11	15	22	18.5	25	26	22	30					
Rated Power Capacities (Ie) AC3 UL 508			Single	110-120V	16	—	1	20	—	1.5	24	—	2	24	—	2	24	—	2	34	—	3	
				220-240V	12	—	2	17	—	3	17	—	3	28	—	5	28	—	5	40	—	7.5	
			Three phase	200/208V	18	—	5	18	—	5	26	—	7.5	26	—	7.5	25.3	—	7.5	49	—	15	
				220-240V	15.2	—	5	15.2	—	5	22	—	7.5	28	—	10	28	—	10	42	—	15	
				440-480V	11	—	7.5	14	—	10	21	—	15	27	—	20	27	—	20	40	—	30	
				550-600V	11	—	10	11	—	10	17	—	15	22	—	20	27	—	25	41	—	40	
For use with bimetallic overload relays					RHU-10/□1			RHU-10/□1			RHU-10/□1			RHU-10/□1			RHU-10/□2			RHU-80/□2			
For use with contactors					CU-11			CU-16			CU-18			CU-22			CU-32R			CU-40			
Contact Configuration					3A1a or 3A1b						3A1a 1b												
Electrical Durability (ops)					1M						1M												
Mechanical Durability (ops)					5M						5M												
 Overall Dimensions (w* h * d) mm / (kg)			IP 40		88*160*107.5 / 0.9						100*170.6*117.3 / 2.0						100*170.6*117.3 / 2.0			130*240*136 / 2.0			
			IP 42		90*184*112 / 0.9						100*194*122.5 / 0.9						—			—			
			IP 65																				

H Series Magnetic Starters

(with Push Button)

Catalogue number			IP 40			HUB-50			HUB-65			HUB-80			HUB-90			
			IP 42			—			—			—			—			
			IP 65			—			—			—			—			
Rated Insulation Voltage (Ui) IEC V			1000			1000			1000			1000						
Rated Operational Voltage (Ue) IEC V			690			690			690			690						
Thermal Current (Ith) IEC/UL A			70/72			80/85			100/104			135/120						
			A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp				
Rated Power Capacities (Ie) AC3 IEC 60947-4-1			Single	110V	50	3	4	50	3	4	60	4	5.5	—	—	—		
				220V	50	6	8	50	6	8	60	7.5	10	—	—	—		
			Three phase	220V	65	18.5	25	65	18.5	25	75	22	30	85	25	35		
				380V	64	30	40	64	30	40	72	37	50	85	45	60		
				415V	64	33	45	64	33	45	72	40	54	85	45	60		
				440V	64	37	50	64	37	50	70	40	54	85	51	70		
				500V	55	37	50	55	37	50	65	45	60	80	55	75		
				660V	45	37	50	45	37	50	60	45	60	65	55	75		
	690V	45	37	50	45	37	50	60	45	60	65	55	75					
Rated Power Capacities (Ie) AC3 UL 508			Single	110-120V	56	—	5	56	—	5	80	—	7.5	80	—	7.5		
				220-240V	68	—	15	68	—	15	68	—	15	68	—	15		
			Three phase	200/208V	63	—	20	63	—	20	79	—	25	79	—	25		
				220-240V	68	—	25	68	—	25	80	—	30	80	—	30		
				440-480V	65	—	50	65	—	50	77	—	60	77	—	60		
				550-600V	62	—	60	62	—	60	62	—	60	77	—	75		
For use with bimetallic overload relays			RHU-80/□3			RHU-80/□3			RHU-80/□3			RHU-80/□3						
For use with contactors			CU-50			CU-65			CU-80			CU-90						
Contact Configuration			3A2a 2b						3A2a 2b									
Electrical Durability (ops)			1M						1M									
Mechanical Durability (ops)			5M						5M									
h d w Overall Dimensions (w* h * d) mm / (kg)			IP 40			170*330*154 / 3.5						170*330*154 / 3.5						
			IP 42			—						—						
			IP 65			—						—						

RHU Series Thermal Overload Relays

Catalogue number			RHU-5/□	RHU-10/□1	RHU-10/□2	RHU-80/□□1	RHU-80/□2	RHU-80/□3
Frame Size (mm)			45			56		
Rated Insulation Voltage (Ui)			UL 600V, IEC 690V					
Setting Current Range (A)			0.1~0.16	0.1~0.16	9~12.5	17~25	17~25	24.5~36
			0.16~0.25	0.16~0.25	11.3~16	24.5~36	24.5~36	34~47
			0.25~0.4	0.25~0.4	15~20		35~47	45~60
			0.35~0.5	0.35~0.5	17.5~21.5			58~75
			0.45~0.63	0.45~0.63	21~25			72~90
			0.55~0.8	0.55~0.8	24.5~30			
			0.75~1	0.75~1	29~36			
			0.9~1.3	0.9~1.3	33~38			
			1.1~1.6	1.1~1.6				
			1.4~2	1.4~2				
			1.8~2.5	1.8~2.5				
			2.3~3.2	2.3~3.2				
			2.9~4	2.9~4				
			3.5~4.8	3.5~4.8				
			4.5~6.3	4.5~6.3				
			5.5~7.5	5.5~7.5				
7.2~10	7.2~10							
9~12.5	9~12.5							
		11.3~16						
		15~20						
		17.5~21.5						
		21~25						
		24.5~30						
		29~36						
		33~38						
For Use With Contactors			CN-5(K)/CN-6(K)	CU-9/11/16/18/22/32R	CU-38	CU-18/22/32R	CU-40	CU-50/65/80/90
Type of Terminal			Screw					
Reset Mode			Automatic, Manual					
Contacts Configuration			1a+1b					
Temperature Compensation Range			—5℃ ~ +55℃					
Trip Class			10A					
Contact Capacities	AC 15	120V	6					
		240V	3					
		380V	1.9					
	Ith	N.C. Contact	10					
		N.C. Contact	10					
Applicable adapter			RP-10			—		
Maximum wire size in AWG			AWG10 (5.3mm ²)	AWG8 (8.4mm ²)		AWG4 (22mm ²)		AWG3 (38mm ²)

Features

- *Reduce power consumption for energy saving and reduction of carbon emissions
- *Comply with IEC, and China GB standard
- *Certificate : CSA, UL
- *Comply with RoHS, CE
- *Phase failure protection
- *Trip class : 10A



RHU、RHN Series Thermal Overload Relays



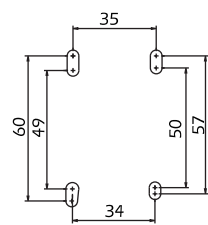
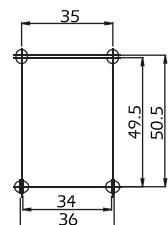
Catalogue number			RHU-80/□□4	RHU-80/□P	RHN-180/□1	RHN-180/□2	RHN-180/□3	RHN-180/□4
Frame Size (mm)			56			100		
Rated Insulation Voltage (Ui)			UL 600V, IEC 690V					
Setting Current Range (A)			17~25	17~25	65~95	65~95	110~160	110~160
			24.5~36	24.5~36	85~125	85~125	125~185	125~185
			34~47	34~47	110~160	110~160		
			45~60					
			58~75					
			72~90					
			77~97					
For Use With Contactors			CU-38	With adapter	CN-100R/125R	CN-150	CN-180	CN-220
Type of Terminal			Screw					
Reset Mode			Automatic, Manual					
Contacts Configuration			1a+1b					
Temperature Compensation Range			—5°C ~ +55°C					
Trip Class			10A					
Contact Capacities	AC 15	120V	6					
		240V	3					
		380V	1.9					
	Ith	N.C. Contact	10		6			
		N.C. Contact	10		6			
Applicable adapter			—					
Maximum wire size in AWG			AWG4 (22mm ²)	AWG3/0 (38mm ²)	AWG3/0 (80mm ²)	AWG3/0 (80mm ²)	AWG4/0 (100mm ²)	

RHN Series Thermal Overload Relays



Catalogue number			RHN-180/□P	RHN-300/□	RHN-300/□P	
Frame Size (mm)			100	150		
Rated Insulation Voltage (Ui)			UL 600V, IEC 690V			
Setting Current Range (A)			65~95	145~200	145~200	
			85~125	175~240	175~240	
			110~160	203~280	203~280	
			125~185	245~336	245~336	
For Use With Contactors			—	CN-220/300	—	
Type of Terminal	Power Side		Screw	Terminal	Screw	
	Load Side		Screw			
Reset Mode			Automatic, Manual			
Contacts Configuration			1a+1b			
Temperature Compensation Range			—5℃ ~ +55℃			
Trip Class			10A			
Contact Capacities	AC 15	120V	6			
		240V	3			
		380V	1.9			
	Ith	N.C. Contact	6	10		
		N.C. Contact	6	10		
Applicable adapter			—			
Maximum wire size in AWG			—			

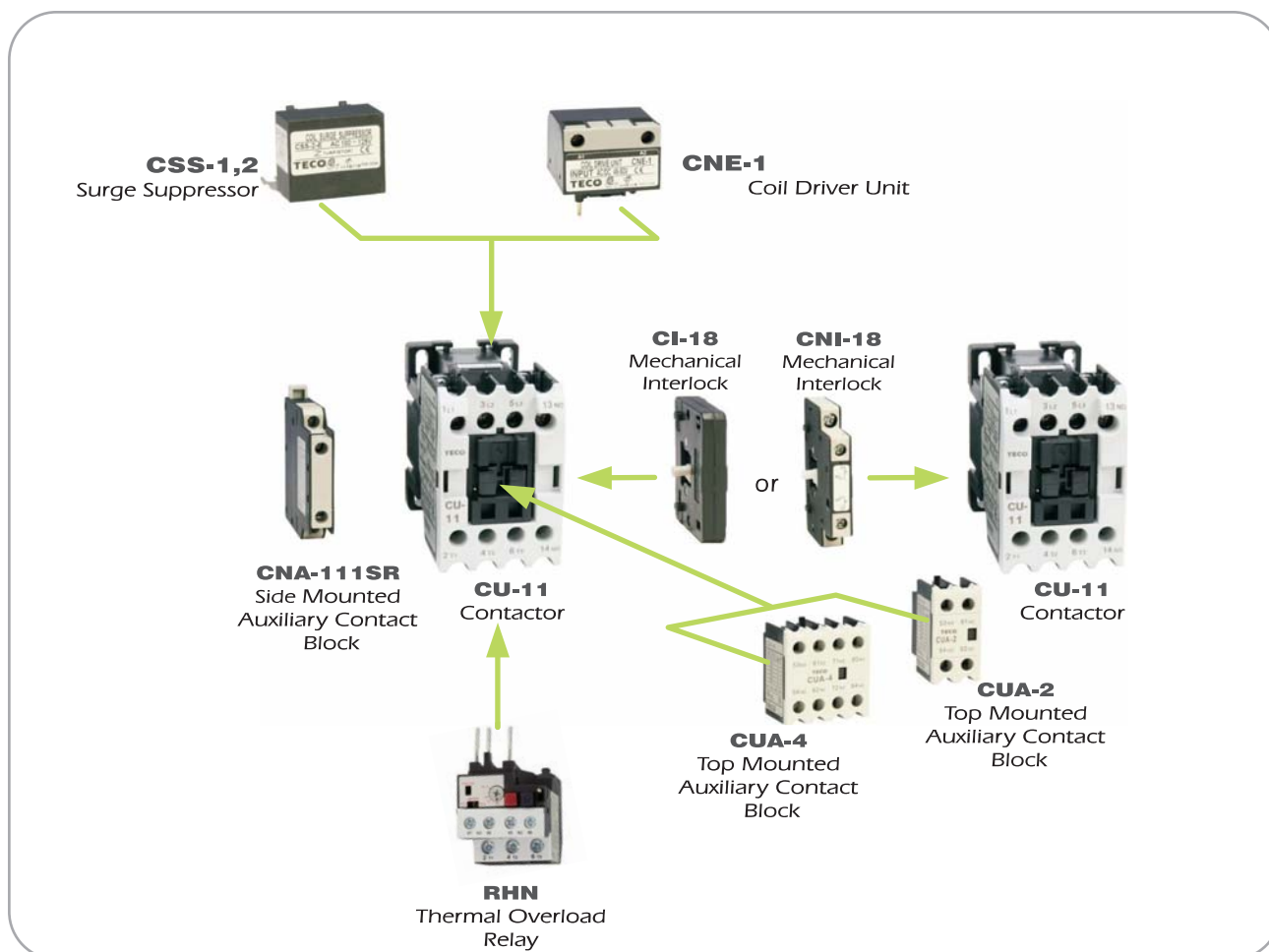
RAU-4 / RAM-4 Control Relays

Catalogue number			RAU-4	RAM-4	RAM-4K
					
Rated insulation voltage (Ui) IEC		V	690	690	
Rated operational voltage (Ue) IEC		V	690	690	
Thermal current AC/DC (Ith)		A	10	10	
Contact rating code designation UL			A600 Q300	A600 Q300	
Rated operational current Ie (A) IEC 60947-5-1 UL 508	AC 15 /A600	120V	6	6	
		240V	3	3	
		380V	1.9	1.9	
		480V	1.5	1.5	
		500V	1.4	1.4	
		600V	1.2	1.2	
	DC 13 /Q300	125V	0.55	0.55	
		250V	0.27	0.27	
Contact configuration			4a, 3a1b, 2a2b, 1a3b, 4b	4a, 3a1b, 2a2b	
Electrical durability (ops) AC 15			1M	1M	
Mechanical durability (ops)			5M	5M	
Weight (kg)			0.3	0.18	
 Overall Dimensions (w* h * d) mm			45*70*82	45*58*54	
Installation information					

Features

- *4,6,8 auxiliary contacts available
- *Easy installation by screw and DIN rail
- *Protective cover design
- *Dual contacts design
- *Flame-retardant engineering plastics in coil set

Accessories



Catalogue number		CI-18	CI-35	CNI-6	CNI-18	CNI-100
						
For use with	U Series	CU-11/16/18/22 32R/38	CU-40/50/65 /80/90	—	CU-11/16/18/22 32R/38	—
	N Series	—	—	CN-5/6	—	CN-100R/125R/ 150/180/220 300
Operational type		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Part number for order		V57909	V57912	V83153	V96450	V77662

Accessories

Catalogue number			CNA-2M	CNA-4M	CUA-2	CUA-4	CNA-111SR	CNA-111B(C)
								
Rated insulation voltage (Ui) IEC V			690					
Contact rating code designation UL			A 600 Q300					
Thermal current AC/DC (Ith) A			10 / 2.5					
Rated operational current Ie (A) IEC 60947-5-1 UL 508	AC 15	120V	6					
		240V	3					
		380V	1.9					
		480V	1.5					
		500V	1.4					
		600V	1.2					
	DC 13	125V	0.55					
		250V	0.27					
Contact configuration			2a, 2b ,1a1b	4a, 3a1b, 2a2b, 1a3b, 4b	2a, 2b, 1a1b	4a, 4b, 3a1b, 2a2b,1a3b	1a1b	1a1b
Electrical durability (ops) AC 15			1M					
Mechanical durability (ops)			5M					
Weight (kg)			0.035	0.04	0.025	0.045	0.04	0.04
For use with	U Series	—	—	CU-11/16/18/ 22/32R/38/40/ 50/65/80/90	CU-11/16/18/ 22/32R/38/40/ 50/65/80/90	CU-11/16/18/ 22/32R/38/40	—	
	N Series	CN-5/6 CN-5K/6K	CN-5/6 CN-5K/6K	—	—	—	CN-100R/125R/ 150/180/200/ 300	



CSS-1 / 2 Surge Suppressors

Catalogue number	Surge absorber element	Rated control voltage	Rated current I _o (mA)	Operational voltage	For use with	
					U Series	N Series
CSS-1-B	RC (Note.1)	24V	28.5~38.5	AC 22-24V / 60Hz / 50Hz	CU-11/16/18/22/ 32R/38/40/ 50/65/80/90	CN-100R/125R
CSS-1-C		48V	56.5~76.5	AC 45-50V / 60Hz / 50Hz		
CSS-1-E		110V	36.1~48.9	AC 100-125V / 60Hz / 50Hz		
CSS-1-H		220V	23.1~31.3	AC 200-240V / 60Hz / 50Hz		
CSS-1-O		440V	14.8~20	AC 380-440V / 60Hz / 50Hz		
CSS-1-BS		24V	28.5~38.5	AC 22-24V / 60Hz / 50Hz	—	CN-5 CN-6 CN-5K CN-6K
CSS-1-CS		48V	56.5~76.5	AC 45-50V / 60Hz / 50Hz		
CSS-1-ES		110V	36.1~48.9	AC 100-125V / 60Hz / 50Hz		
CSS-1-HS		220V	23.1~31.3	AC 200-240V / 60Hz / 50Hz		
CSS-1-OS		440V	14.8~20	AC 380-440V / 60Hz / 50Hz		
CSS-2-B	VARISTOR (Note.2)	24V	3.1~4.3	AC/DC 22-24V / 60Hz / 50Hz	CU-11/16/18/22/ 32R/38/40/ 50/65/80/90	CN-100R/125R
CSS-2-C		48V	6~8.2	AC/DC 45-50V / 60Hz / 50Hz		
CSS-2-E		110V	0.85~1.15	AC/DC 100-125V / 60Hz / 50Hz		
CSS-2-H		220V	1.87~2.53	AC/DC 200-240V / 60Hz / 50Hz		
CSS-2-O		440V	1.275~1.725	AC/DC 380-440V / 60Hz / 50Hz		
CSS-2-BS		24V	3.1~4.3	AC/DC 22-24V / 60Hz / 50Hz	—	CN-5 CN-6 CN-5K CN-6K
CSS-2-CS		48V	6~8.2	AC/DC 45-50V / 60Hz / 50Hz		
CSS-2-ES		110V	0.85~1.15	AC/DC 100-125V / 60Hz / 50Hz		
CSS-2-HS		220V	1.87~2.53	AC/DC 200-240V / 60Hz / 50Hz		
CSS-2-OS		440V	1.275~1.725	AC/DC 380-440V / 60Hz / 50Hz		

Features

- *Operating environment: -5~55°C; Altitude limit: 2,000 meters
- *Voltage spike in the absorption coil when OFF
- *Easy installation
- *Complete product line for all needs:
 - (1)RC type
 - Applicable to vary voltage spikes
 - (2)Varistor type
 - Applicable to peak voltage spike
 - (3)Operation indicator lamp equipped
 - Red LED light indicates the status of the coil contact when voltage is applied

CNE-1 Series Coil Driver Units



Catalogue number	Rated Operational Voltage	For use with	Coil Type	Pick-up Vm' %[V]	Dropout Vn' %[V]	Power Consumption [W]	Operating Delay (ms)	
							Pick-up	Dropout
CNE-1B(S)-(R)	AC 22-24V (50/60Hz) DC 22-24V	CN-5/6	Primary Coil	66%~77%	50%~63%	0.8~0.85	30~70	17~27
CNE-1B-R		CU-11/16/18/22/32R	Primary Coil	79%~83%	50%~67%	0.7~1.5	30~70	17~27
CNE-1B-R	DC 22-24V	CU-38	Primary Coil	70%~83%	50%~63%	1.0~1.6	30~70	17~27
CNE-1B-R		CU-40	Special R06574	75%~83%	42%~63%	1.5~2.1	30~70	17~27
CNE-1CS-R	AC 45-50V (50/60Hz) DC 45-50V	CU-50/65/80/90	Special R07062	75%~83%	42%~63%	1.5~2.1	30~70	17~27
CNE-1C-R		CN-5/6	Primary Coil	66%~75%	33%~63%	0.86~0.92	26~33	20~24
CNE-1C-R		CU-11/16/18/22/32R	Primary Coil	66%~83%	33%~65%	0.4~1.3	45~55	30~40
CNE-1C-R		CU-38	Special R15168	70%~83%	33%~63%	0.8~2.6	25~60	20~35
CNE-1C-R		CU-40	Special R06587	70%~83%	33%~63%	0.8~2.6	25~35	30~40
CNE-1ES	AC 100-120V (50/60Hz) DC 100-120V	CU-50/65/80/90	Special R06590	70%~83%	33%~63%	0.8~2.6	25~35	30~40
CNE-1E		CN-5/6	Primary Coil	64%~73%	41%~55%	1.3~1.6	24~32	18~23
CNE-1E		CU-11/16/18/22/32R	Primary Coil	64%~73%	41%~55%	1.3~2.8	20~30	30~40
CNE-1E		CU-38	Special R14143	64%~73%	41%~55%	1.6~3.1	30~50	30~50
CNE-1E		CU-40	Special R05395	64%~73%	41%~55%	1.6~3.1	25~35	30~40
CNE-1W	DC 112-138V	CU-50/65/80/90	Special V77581	64%~73%	41%~55%	2.5~4.0	30~40	45~50
CNE-1W		CU-11/16/18/22/32R	Special V88035	75%~82%	41%~55%	Max 2.6	26~34	28~39
CNE-1W		CU-38	Special F03736	75%~82%	41%~55%	Max 2.6	33~42	35~47
CNE-1W		CU-40	Special R07339	75%~82%	41%~55%	Max 3.1	33~42	35~47
CNE-1HS	AC 200-240V (50/60Hz) DC 200-240V	CU-50/65/80/90	Special R07743	75%~82%	41%~55%	Max 3	25~34	65~78
CNE-1H		CN-5/6	Primary Coil	60%~65%	41%~50%	2.0~2.2	20~30	25~35
CNE-1H		CU-11/16/18/22/32R	Primary Coil	60%~65%	41%~50%	2.1~3.4	20~30	25~35
CNE-1H		CU-38	Special R12860	60%~65%	41%~50%	2.1~3.4	21~31	27~37
CNE-1H		CU-40	Special R06037	60%~65%	41%~50%	2.5~4.3	21~31	27~37
CNE-1H		CU-50/65/80/90	Special V77594	60%~65%	41%~50%	2.8~4.5	25~35	35~45

Features

*AC controlled coil can be triggered by AC/DC

*Noise interference can be avoided

*Energy saving by over 40%

Definite Purpose Contactors

Available Coil Voltage

Coil Volt (V)	Hz	Available		
		DPA-1 / 1.5 Pole	DPA-2 Pole	DPA-3 Pole
24 V	50 / 60 Hz	●	●	●
110V		●	●	●
120V		●	●	●
208-240V			●	●
220V		●	●	●
277V		●	●	●
		(60Hz only)	(60Hz only)	
380 V		—	—	●
440V		—	—	●
550V		—	—	●

Aux. Contacts



Aux contacts units (3a3b) available for 3-pole model

Features

- *All series comply with RoHS
- *All series provide 1-, 1.5-, 2-, and 3-pole products
- *The contact is an AMP 250 quick coupling contact, which saves wiring time
- *Standard dimensions for installation
- *The design complies with standards including ARI780/790 (HVAC)
UL 508 and IEC 60947-1, IEC 60947-4-1
- *International certificate : UL and CSA

Characteristics of 3-Pole

- *The screws used for 3P can be interchanged with Lugs
- *Maximum to be equipped with 3 sets of aux. contacts
- *Coil with wide voltage range 208V~240V
- *Top cover is bundled for standard type models
- *Dust-proof cover design ensures higher operation life

Applicable scope

- *It is applied electric heater, fan, air conditioning equipment in HVAC facilities, elevators, power systems, food processing machines, lighting, swimming pools and spa, pumps, overhead traveling cranes and agricultural machinery equipment



Definite Purpose Contactors

Catalogue number				DPA-1020	DPA-1520	DPA-2020	DPA-1025	DPA-1525	DPA-2025	DPA-1030	DPA-1530	DPA-2030	DPA-1040	DPA-1540	DPA-2040
				 51.5x83.4x66			 51.5x83.4x66			 51.5x83.4x66			 51.5x83.4x66		
Number of poles				1	1+ Shunt	2	1	1+ Shunt	2	1	1+ Shunt	2	1	1+ SHUNT	2
Terminal				Screw / Lug			Screw / Lug			Screw / Lug			Screw / Lug		
Rated Insulation Voltage (Ui) UL/IEC				600/660											
Rated Operational Voltage (Ue) UL/IEC				600/660											
Duty thermal current (Ith) UL/IEC				30			35			40			50		
ARI (A) Standard 780/790	Full load amps (FLA)			20			25			30			40		
	Locked rotor amps (LRA) A	Single Phase	240/277V	120			150			180			240		
			480V	100			125			150			200		
			600V	80			100			120			160		
	Resistance Load (RES) (A)			30			35			40			50		
UL 508	Full Load current (FLA)	Single Phase	120V	1.5Hp/20A			2Hp/24A			2Hp/24A			3Hp/34A		
			240/277V	3Hp/17A			3Hp/17A			5Hp/28A			7.5Hp/40A		
IEC 60947-1 IEC 60947-4-1 AC 7a, AC 8a	Rated current (A)		220V	20			25			30			40		
			380V	20			25			30			40		
	Resistance Load (RES) (A)			32			35			40			50		
Weight (kg)				0.23	0.23	0.3	0.23	0.23	0.3	0.23	0.23	0.3	0.23	0.23	0.3

Note : Standard type with Top cover and without dust proof cover.

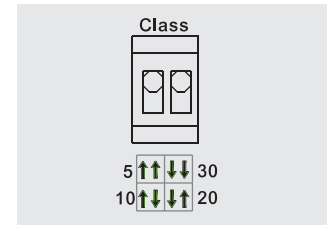
Catalogue number				DPA-3020	DPA-3025	DPA-3030	DPA-3040
				 62x95.3x73.9	 62x95.3x73.9	 62x95.3x73.9	 62x95.3x73.9
Number of poles				3	3	3	3
Terminal				Screw / Lug	Screw / Lug	Screw / Lug	Screw / Lug
Rated Insulation Voltage (Ui) UL/IEC				600/660			
Rated Operationue Voltage (Ue) UL/IEC				600/660			
Duty thermal current (Ith) UL/IEC				30	35	40	50
ARI (A) Standard 780/790	Full load amps (FLA)			20	25	30	40
	Locked rotor amps (LRA) A	Single Phase	240/277V	120	150	180	240
			480V	100	125	150	200
			600V	80	100	120	160
	Resistance Load (RES) (A)			30	35	40	50
UL 508	Full Load current (FLA)	Single Phase	120V	1.5Hp/20A	2Hp/24A	2Hp/24A	3Hp/34A
			240/277V	3Hp/17A	5Hp/28A	5Hp/28A	7.5Hp/40A
			440/480V	5Hp/14A	5Hp/14A	7.5Hp/21A	15Hp/34A
	Rated current (A)	Three Phase	220/240V	7.5Hp/22A	10Hp/28A	10Hp/28A	10Hp/28A
			440/480V	7.5Hp/11A	15Hp/21A	15Hp/21A	20Hp/27A
			550/600V	7.5Hp/9A	20Hp/22A	20Hp/22A	25Hp/27A
IEC 60947-1 IEC 60947.4-1 AC 7a, AC 8a	Rated current (A)		220V	20	25	30	40
			380V	20	25	30	40
	Resistance Load (RES) (A)			32	35	40	50
Weight (kg)			0.43	0.43	0.43	0.43	

Electronic Overload Relays

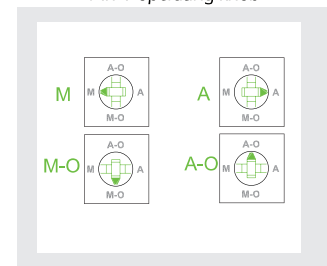
Features

- *MCU(Microprocessor Control Unit) designed.
- *Complied with IEC 60947-4-1, IEC 60947-5-1, UL 508 and CSA C22.2. Certificate : CE, UL, CSA, and TUV
- *Wide adjustable current range (5:1)
- *Phase failure, over current, inrush current, phase unbalance protection
- *Quick response protection within 3 seconds
- *Adjustable trip class 5/10/20/30
- *4-in-1 operating knob for automatic reset/automatic reset-stop/manual reset/manual reset-stop modes
- *Energy-saving with low heat loss, low power consumption
- *Installed with Din rail or screws

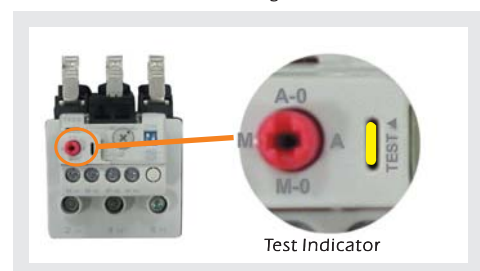
Adjustable current range



4-in-1 operating knob



Testing

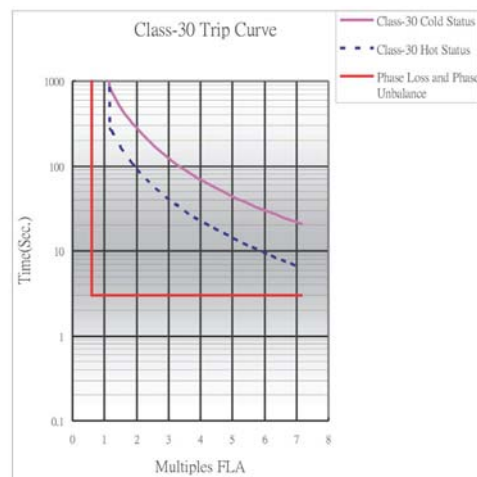
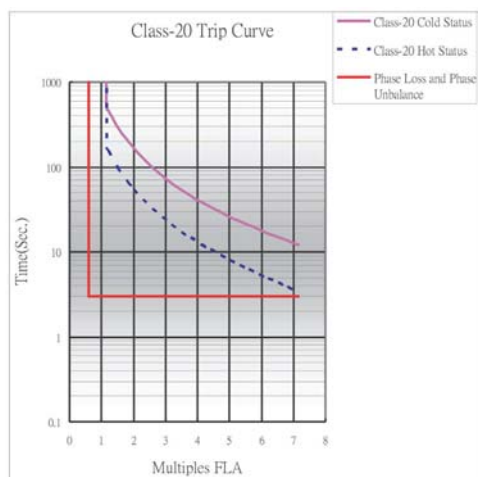
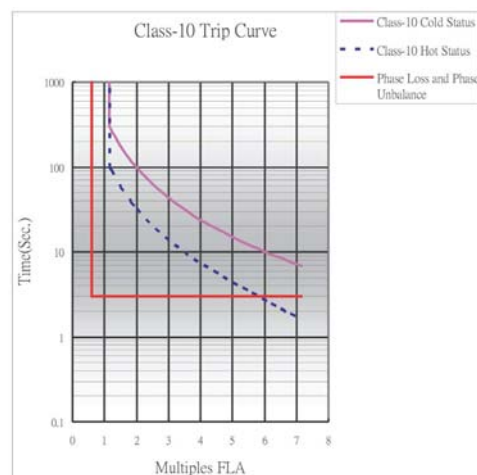
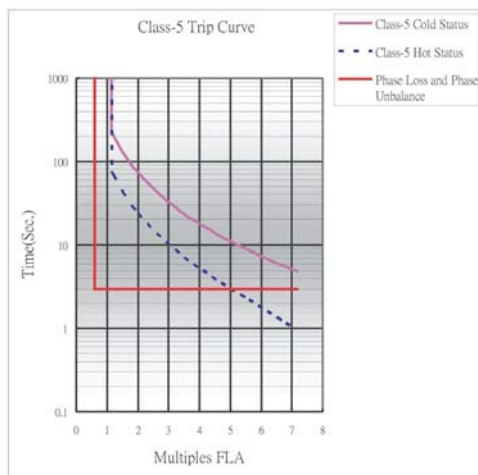


Electronic Overload Relays

Catalogue number		EOL-40/□□□-□	EOL-80/□□□-□	EOL-200/□□□-□
		 45x72.5x79.9 / 0.18	 65x93.5x107 / 0.55  65x106.8x115 / 0.6	 123x190x148.7 / 1.5
Specification	Control Unit	MCU		
	Power Consumption	<300mW		
	Current Sensors	3CT		
	Current Setting Ranges	0.1~0.5A (005) 6.4~32A (32) 0.4~2A (02) 9~45A (45) 1~5A (05) 1.6~8A (08)	15~75A (75) 22~110A (110)	30~150A (150)
	Operation Current Setting Ratio	5 : 1		
	CT	Internal		
	Insulation Voltage(Ui) IEC	1000V		
	Main Circuit	1000V		
	Auxiliary Circuit	690V		
	Operation Voltage (Ue) IEC	690V		
	Main Circuit	690V		
	Auxiliary Circuit	660V		
	Resistance to Vibrations (IEC 60.068)	6g (any direction 5~150Hz)		
	Protection to Shock-Hazard, According to (VDE 0106 Part 100)	●		
	Impulse withstand Voltage	8kV		
Mechanism Functions	Index of protection (IP) (IEC 60529&VDE 0470)	IP 20	IP 20	IP 00
	Trip Class (IEC)	5/10/20/30 selectable		
	Self-Powered (control circuit)	●		
	Ambient Temperature Compensation	●		
	Trip indication	●		
	Reset/Stop Functions	●		
	Reset	Manual / Auto and Stop on One Same Rod		
	Function Test Method (test button)	Mechanical (yellow)		
Electronic Function	Operation Protective Cover	●		
	Mounting	●		
	Panel Mounting	●	●	●
Compatible Contactor List	Din Rail (35mm)	●	●	—
	Power Indicate (LED)on/off (Main Circuit)	option		
	Hot/Cold State Trip Memory. Thermal Memory.	●		
	Automatic Reset Time	1.5 min ~ 4min		
	Manual Instantaneous Reset	●		
	Mounting Position	Any		
	Inrush Current Protection	12 times		
	Phase Loss Protection.	●(phase difference than>70% , will trip within 3 seconds.)		
	Phase Unbalance Protection.	●(phase difference than>40% , will trip within 3 seconds.)		
	Overload curve	Inverse Time / Current Curve		
	1	CN-5/6	CU-50/65/80/ 90	CN-100R/125R
	2	CU-11/16	CN-100/125R	CN-150
	3	CU-18/22/32R	—	CN-180/220
	4	CU-38/40	—	—
	P (Note 1)	●	●	—

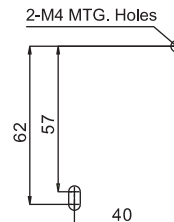
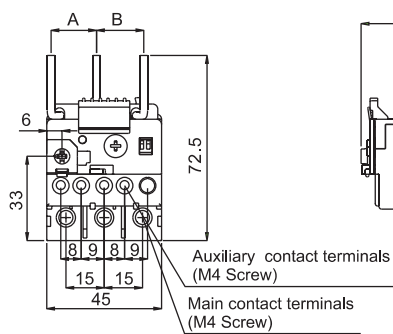
Notes ● : available — : not available 1 : Separate mounting type. 2 : Patent in Taiwan, China & US.

IEC Trip Class



Electronic Overload Relays

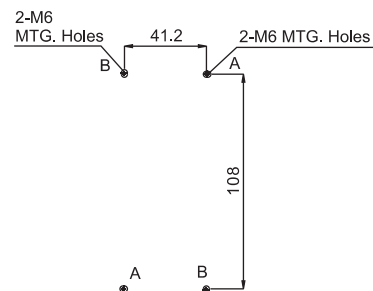
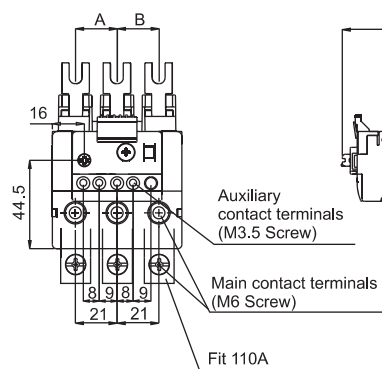
EOL-40(45mm)



Drilling plans

Item.	For TECO CN-5, 6 contactor	For TECO CU-11, 16 contactor	For TECO CU-18, 22 contactor	For TECO CU-38 contactor	For TECO CU-40 contactor
A	8.2mm	12.3mm	12.6mm	17.8mm	17.8mm
B	8.7mm	10.3mm	13mm	18.5mm	18.5mm
C	38.9mm	60.4mm	62.4mm	57.9mm	57.9mm

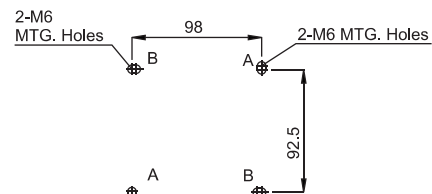
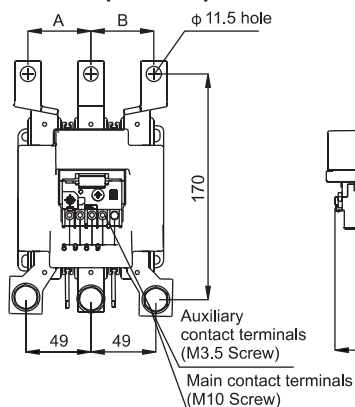
EOL-80(65mm)



Drilling plans

Item.	For TECO CU-50 65,80 contactor	For TECO CN-100R contactor
A	21mm	32mm
B	21mm	32mm
C	67mm	82.3mm

EOL-200(110mm)



Item.	For TECO CN-100R, 125R contactor	For TECO CN-150 contactor	For TECO CN-180, 220 contactor
A	32mm	39.5mm	48mm
B	32mm	39.5mm	48mm
C	80mm	98mm	98mm

Coil Data

Mini Series

Catalogue number	Coil Consumption		Power Dissipation (W)	Pick-up Voltage	Dropout Voltage	Opening Delay (ms)		Closing Delay (ms)	
	Inrush(VA)	Sealed(VA)				N/C	N/O	N/C	N/O
CN-5K,CN-6K,RAM-4K	—	Max 3	Max 3	Max 0.75	Max 0.55	15–30	20–40	5.0–15	4.0–10
CN-5,CN-6,RAM-4	Max 27	Max 5	Max 2	Max 0.75	Max 0.55	15–20	16–22	12–18	8.0–14

U Series

Catalogue number	Coil Consumption		Power Dissipation (W)	Pick-up Voltage	Dropout Voltage	Opening Delay (ms)		Closing Delay (ms)	
	Inrush(VA)	Sealed(VA)				N/C	N/O	N/C	N/O
CU-11,CU-16 CU-10/4P,RAU-4	Max 70	Max 12	Max 4	Max 0.75	Max 0.55	10–22	15–23	7.0–16	7.0–14
CU-18,CU-22,CU-32R	Max 70	Max 12	Max 4	Max 0.75	Max 0.55	8.0–24	12–26	12–20	6.0–14
CU-18/4P,CU-22/4P	Max 70	Max 12	Max 4	Max 0.75	Max 0.55	8.0–24	12–26	12–20	6.0–14
CU-38	Max 150	Max 15	Max 5	Max 0.75	Max 0.55	10–25	14–30	5.0–30	3.0–25
CU-40	Max 215	Max 27	Max 6	Max 0.75	Max 0.55	9.0–16	14–20	8.0–14	4.0–14
CU-50,CU-65,CU-80,CU-90	Max 280	Max 32	Max 7.5	Max 0.75	Max 0.55	12–18	15–30	5.0–12	10–16
CN-100R/125R	Max 560	Max 63	Max 10	Max 0.75	Max 0.6	8–15	11–28	7–20	4–12
CN-150/180	Max 700	Max 88	Max 15	Max 0.8	Max 0.55	13–26	21–31	9.0–26	5.0–22
CN-220/300	Max 1050	Max 63	Max 15	Max 0.8	Max 0.55	10–40	10–40	12–30	24–30
CN-400-R / CN-500	Max 1100	Max 18	Max 18	Max 0.78	Max 0.45	35–65	40–70	90–150	85–145
CN-400K-R / CN-500K	Max 1200	Max 8	Max 8	Max 0.78	Min 0.15 Max 0.30	45–65	50–70	1–10	0.5–5
CN-630 / CNL-630	Max 1730	Max 25	Max 25	Max 0.78	Max 0.45	85–115	90–120	95–145	90–140
CN-630K / CNL-630K	Max 1920	Max 13	Max 13	Max 0.75	Min 0.15 Max 0.30	35–65	65–86	10–35	7.5–30

DPA Series

Catalogue number	Coil Consumption		Power Dissipation (W)	Pick-up Voltage	Dropout Voltage
	Inrush(VA)	Sealed(VA)			
DPA-1020,1025,1030,1040	Max 25	Max 7.5	Max 4	Max 0.75	Max 0.6
DPA-1520,1525,1530,1540	Max 25	Max 7.5	Max 4	Max 0.75	Max 0.6
DPA-2020,2025,2030,2040	Max 40	Max 8.0	Max 4.5	Max 0.75	Max 0.6
DPA-3020,3025,3030,3040	Max 65	Max 15	Max 7	Max 0.75	Max 0.6



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