

## DZ47-63 Series Miniature Circuit Breaker

### 1. Application

DZ47-63 is applicable to a line of AC 50/60Hz, 230/400V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition. The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898 -1.



DZ47-63 1P



DZ47-63 2P



DZ47-63 3P



DZ47-63 4P

### 2. Main Technical Parameter

Type	DZ47-63			
Pole	1P		2P, 3P, 4P	
Rated current (A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230/400		400	
Ambient temperature	-5°C~+40°C			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity Icn(kA)	1-32A: 6 50-63A: 4	4	1-32A: 6 50-63A: 4	4

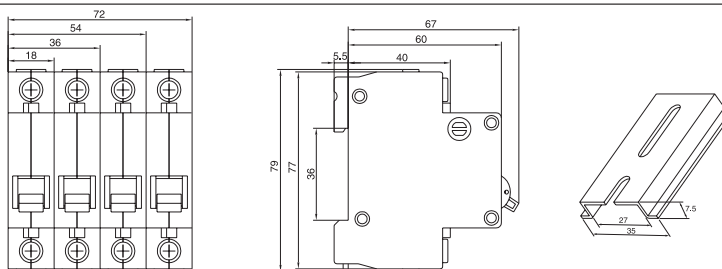
### 3. Applicable Conducting Wire

Rated current(A)	Normal cross section of wire mm <sup>2</sup>
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

### 4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2°C	Cold position	1.13In	t ≤ 1h	Non-release	—
	Carried out immediately after previous test	1.45In	t < 1h	Release	—
	Cold position	2.55In	1s < t < 60s (In < 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s < t < 120s (In > 32A)	Release	
-5~+40°C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t < 0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t < 0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t < 0.1s	Release	Type D

### 5. Dimension



## CJX2-N Mechanical Interlocking Contactor

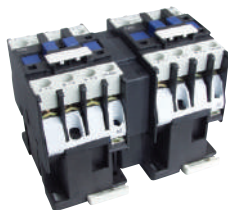
### 1. Application

CJX2-N mechanical interlocking contactor is suitable for using in the circuits up to the rated voltage 660V AC 50/60Hz, current 620A, for convertible controlling the motor. This mechanical interlocking device ensures contact changeover of the two convertible contactors. It conforms to IEC60947-4-1 standard.

### 2. Specification



CJX2-09~12N



CJX2-25~32N



CJX2-40~95N

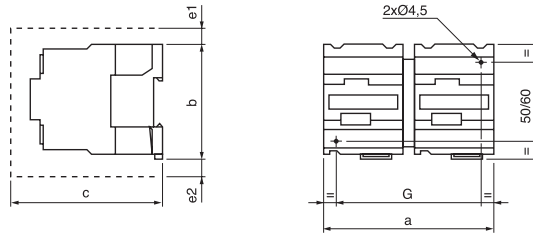


CJX2-115~800N

Type	Rated current AC-3(A)	Controlled power (kW)				
		220V	380V	415V	440V	660V
CJX2-09N	9	2.2	4	4	4	5.5
CJX2-12N	12	5.5	5.5	5.5	5.5	7.5
CJX2-18N	18	7.5	7.5	9	9	10
CJX2-25N	25	5.5	11	11	11	15
CJX2-32N	32	7.5	15	15	15	18.5
CJX2-40N	40	18.5	18.5	22	22	30
CJX2-50N	50	15	22	25	30	33
CJX2-65N	63	18.5	30	37	37	37
CJX2-80N	80	22	37	45	45	45
CJX2-95N	95	22	45	45	45	41
CJX2-115N	115	30	55	59	59	80
CJX2-150N	150	40	75	80	80	100
CJX2-170N	170	55	90	100	100	110
CJX2-205N	205	63	110	110	110	129
CJX2-245N	245	75	132	132	132	160
CJX2-300N	300	100	160	200	200	220
CJX2-410N	410	110	220	250	250	280
CJX2-475N	475	147	265	280	280	355
CJX2-620N	620	200	335	400	400	450

Type	Number of poles	Rated current AC-3(A)	Rated current In/A	Controlled power(kW)	
				220V	380V
CJX2-F115N	3P	115	250	200	55
CJX2-F1154N	4P	115	250	200	55
CJX2-F150N	3P	150	355	250	75
CJX2-F1504N	4P	150	355	250	75
CJX2-F185N	3P	185	425	275	90
CJX2-F1854N	4P	185	425	275	90
CJX2-F225N	3P	225	500	315	110
CJX2-F2254N	4P	225	500	315	110
CJX2-F265N	3P	265	630	350	132
CJX2-F2654N	4P	265	630	350	132
CJX2-F330N	3P	330	800	400	160
CJX2-F3304N	4P	330	800	400	160
CJX2-F400N	3P	400	800	500	200
CJX2-F4004N	4P	400	800	500	200
CJX2-F500N	3P	500	1000	700	250
CJX2-F5004N	4P	500	1000	700	250
CJX2-F630N	3P	630	1250	1000	335
CJX2-F6304N	4P	630	1250	1000	335
CJX2-F800N	3P	800	1250	1000	400

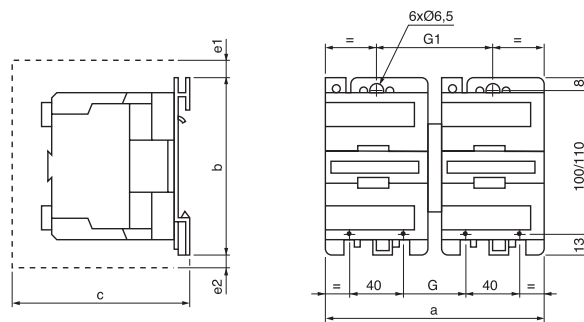
### 3. Outline and Mounting Dimension



CJX2-09N~38N

CJX2-N	a	b	c	e1(3P)	e2(4P)	G
09N, 12N	105	74	84	7	6	95
18N	106	74	92	8	-	95
25N	127	84	99	8	7	111
32N, 38N	127	84	117	10	-	111

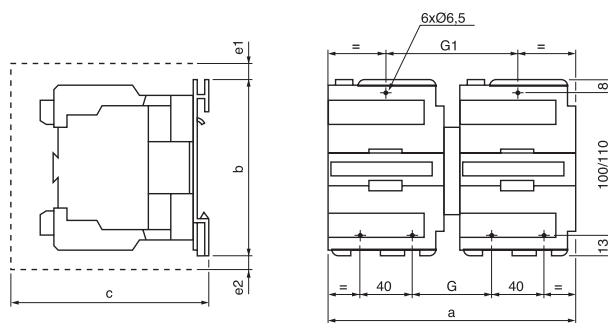
c, e1 and e2 including cabling



CJX2-40N~65N

CJX2-N(3-pole)	a	b	c	e1	GG	1
40N, 50N, 55N	165	127	142	5	50	90
CJX2-N(4-pole)	a	b	c	e2	GG	1
40N, 65N	182	127	133	11	57	97

c, e1 and e2 including cabling



CJX2-80N~95N

CJX2-N(3-pole)	a	b	c	e1	GG	1
80N, 95N	182	127	158	13	57	90
CJX2-N(4-pole)	a	b	c	e2	GG	1
80N	207	127	158	20	71	11

c, e1 and e2 including cabling

## AM1 Series Moulded Case Circuit Breaker



AM1-63M/3P



AM1-63M/4P



AM1-100M/3P



AM1-225L/3P

Two option: paper or laser  
laser label, default is label

### 1. Application

AM1 series moulded case circuit breaker is one of products developed and manufactured by adopting international advanced technology. It is supplied with rated insulating voltage 550 and 800V and used for circuit of AC 50/60Hz, rated operating voltage AC 400V (or below), rated operating current up to 1600A for infrequent changing over and starting of the motors. The products conforms to IEC60947-2 standard.

### 2. Main Technical Specification

Table 1

Type	Rated current (A)	Pole	Rated insulating voltage (V)	Rated operating voltage (V)	Arcing-over distance (mm)	Ultimate short circuit breaking capacity (kA)	Service short circuit breaking capacity (kA)	Operation performance		Utilization category	
								Load	Unload		
AM1-63L	(6),10,16,20,25,32,40,50,63	3, 4	500V	400V	0	25	18	1500	8500	A	
AM1-63M					0	50	35				
AM1-100L	(10),16,20,25,32,40,50,63,80,100				0(< 50)	35	22	1000	7000		
AM1-100M					0(< 50)	50	35				
AM1-100H	0(< 50)				85	50	1000	4000			
AM1-225L	100,125,160,180,200,225				< 50	35			22		
AM1-225M			< 50		50	35					
AM1-225H			< 50		85	50					
AM1-400L	225,250,315,350,400		< 50		50	35			1000		4000
AM1-400M			< 100		65	42					
AM1-630L	400		< 100		50	35					
AM1-630M	500		< 100		65	42					
AM1-630H	630	< 100	100	65							
AM1-800M	630,700,800	< 100	75	50							
AM1-800H		< 100	100	65							
AM1-1250M	1000,1250	< 100	100	65							
AM1-1250H		< 100	125	75							
AM1-1600M	1600	< 100	150	80							

**Note:** 6A without thermal protection

The N-pole of four-poles breaker is sited at the right side of the product has four types:

Type A: Without current trip-lease on N pole which making all the time, not closing and opening with the other three poles.

Type B: Without current trip-release on N pole which closing and opening with the other poles.

Type C: With current trip-release which closing and opening with the other three poles.

Type D: With current trip-release which making all the time not closing and opening with the other three poles.

### 3. Protection Characteristic

The thermodynamic release of a circuit breaker provides the feature of inverse time-delay, while the magnetic release is the instantaneous operation as shown on table 2(distribution circuit breaker) and table 3 (motor protection circuit breaker).

## QCX2 Series Magnetic Starter

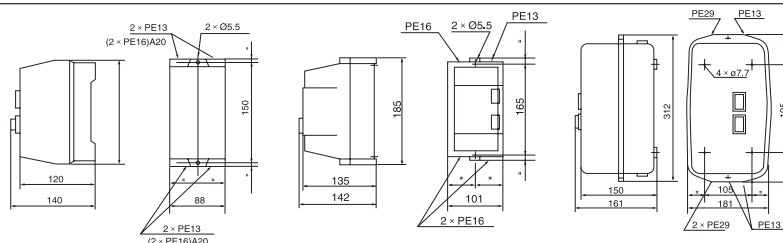
### 1. Application

QCX2 series magnetic starter is mainly applied to circuit of AC 50 or 60Hz, voltage up to 550V for far distance making and breaking circuit and frequently starting and controlling motor. It has the features of small volume, light weight, low power consumption, high efficiency, safe and reliable performance. It complies to IEC947-4-1 standard.

### 2. Specification

Type	Rated current (A)	Maximum power AC3 duty (kW)						Suitable thermal relay (A)
		220/230V	380/400V	415V	440V	500V	660/690V	
QCX2-9	9	2.2	4	4	4	5.5	5.5	JR28 D1312/1314
QCX2-12	12	3	5.5	5.5	5.5	7.5	7.5	JR28 D1316
QCX2-18	18	4	7.5	9	9	10	10	JR28 D1321
QCX2-25	25	5.5	11	11	11	15	15	JR28 D1322/2353
QCX2-32	32	7.5	15	15	15	18.5	18.5	JR28 D2355
QCX2-40	40	11	18.5	22	22	22	30	JR28 D3353/3355
QCX2-50	50	15	22	25	30	30	33	JR28 D3357/3359
QCX2-65	65	18.5	30	37	37	37	37	JR28 D3359
QCX2-80	80	22	37	45	45	55	45	JR28 D3363/3365
QCX2-95	95	25	45	45	45	55	45	JR28 D3365

### 3. Dimension & Mounting Size



QCX2-09/12/18

QCX2-25/32

QCX2-40/50/65/80/95



QCX2-09,12,18



QCX2-25,32



QCX2-40~95



QS5-15N



QS5-63A

## QS5 Series Cam Starter

### 1. Application

QS5 cam starter is mainly used to start forward or backward and stop directly three-phase asynchronous electric motor with AC 50/60Hz, voltage up to 500V and capacity up to 7.5KW. It can also be used for changeover from one ind of circuit to the other.

### 2. Specification

Model	Mark	Rated current (A)	Motor control capacity (HP)	Mechanical life (times)	Frequency of operation (per hr)	Applications	Position of lever				
QS5-15A	I-O	15	5.5	250000	200	ON-OFF switching	0-60				
QS5-30A		30	10								
QS5-15N	I-O-I	15	5.5			200000	180	Forward & reverse	60-0-60		
QS5-30N		30	10								
QS5-15P/3	I-O-II	15	5.5					200000	180	for 3 pole two circuit	60-0-60
QS5-30P/3		30	10								
QS5-63A	I-O	63	22	200000	180					ON-OFF switching	0-60
QS5-100A		100	30								
QS5-63N	I-O-I	63	22			200000	180			Forward & reverse	60-0-60
QS5-100N		100	30								
QS5-63P/4	I-O-II	63	22					200000	180	for 3 pole two circuit	60-0-60
QS5-100P/4		100	30								

## CJX2 Series AC Contactor

### 1. Application

CJX2 series AC Contactor is suitable for using in the circuits up to the rated voltage 660V AC 50/60Hz, rated current up to 620A, for making, breaking, frequently starting & controlling the AC motor. Combined with the auxiliary contact block, timer delay & machine-interlocking device etc, it becomes the delay contactor, mechanical interlocking contactor, star-delta starter. With the thermal relay, it is combined into the electromagnetic starter. The product conforms to IEC60947-4-1 standard.



CJX2-D09



CJX2-D25



CJX2-D50



CJX2-D95

### 2. Specification

Type		CJX2-D09	CJX2-D12	CJX2-D18	CJX2-D25	CJX2-D32	CJX2-D40	CJX2-D50	CJX2-D65	CJX2-D80	CJX2-D95
Rated working current (A)	AC3	9	12	18	25	32	40	50	65	80	95
	AC4	3.5	5	7.7	8.5	12	18.5	24	28	37	44
Standard power ratings of 3-phase motors 50/60Hz in category AC-3 (kW)	220/230V	2.2	3	4	5.5	7.5	11	15	18.5	22	25
	380/400V	4	5.5	7.5	11	15	18.5	22	30	37	45
	415V	4	5.5	9	11	15	22	25	37	45	45
	500V	5.5	7.5	10	15	18.5	22	30	37	55	55
Rated heat current (A)		20	20	32	40	50	60	80	80	125	125
Electrical life	AC3 (x10 <sup>4</sup> )	100	100	100	100	80	80	60	60	60	60
	AC4 (x10 <sup>4</sup> )	20	20	20	20	20	15	15	15	10	10
Mechanical life (x10 <sup>4</sup> )		1000	1000	1000	1000	800	800	800	800	600	600
Number of the contacts		3P+NO					3P+NC+NO				
		3P+NC									

Type		CJX2-D115	CJX2-D150	CJX2-D170	CJX2-D205	CJX2-D245	CJX2-D300	CJX2-D410	CJX2-D475	CJX2-D620
Rated working current (A)	AC3	115	150	170	205	245	300	410	475	620
	AC4	52	60	75	85	105	117	138	147	180
Standard power ratings of 3-phase motors 50/60Hz in category AC-3(kW)	220/230V	30	40	55	63	75	100	110	147	200
	380/400V	55	75	90	110	132	160	220	265	335
	415V	59	80	100	110	132	180	220	280	375
	500V	75	90	110	129	160	200	250	355	400
Rated heat current (A)		200	250	250	275	315	400	500	700	1000
Electrical life	AC3 (x10 <sup>4</sup> )	200	60	60	50	50	50	30	30	20
	AC4 (x10 <sup>4</sup> )	15	15	15	15	15	15	8	8	5
Mechanical life (x10 <sup>4</sup> )		300	300	300	300	300	300	100	100	100

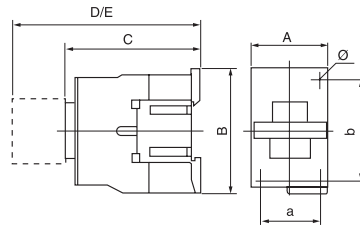
### 3. Standard Control Circuit Voltage

Volts	24	42	48	110	220	230	240	380	400	415	440	500	660
50Hz	B5	D5	E5	F5	M5	P5	U5	Q5	V5	N5	R5	S5	Y5
60Hz	B6	D6	E6	F6	M6	-	U6	Q6	-	-	R6	-	-
50/60Hz	B7	D7	E7	F7	M7	P7	U7	Q7	V7	N7	R7	-	-

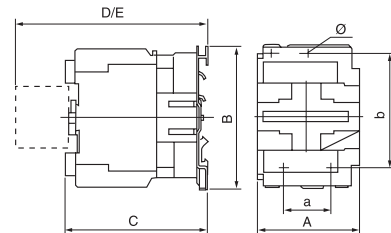
## 4. Outline and Mounting Dimension



CJX2-D115



CJX2-D09~32



CJX2-D40~95

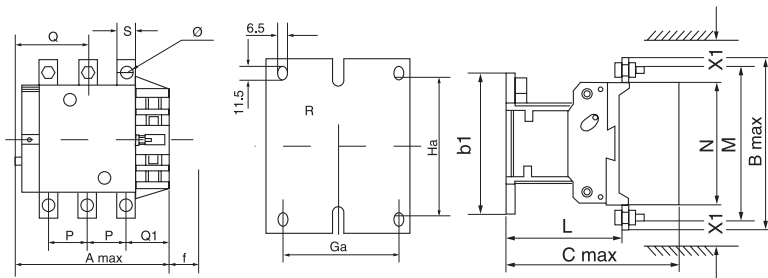


CJX2-D205

Type	A	B	C	D	E	a	b	
CJX2-D09~12	47	76	82	113	133	34/35	50/60	4.5
CJX2-D18	47	76	87	118	138	34/35	50/60	4.5
CJX2-D25	57	86	95	126	146	40	48	4.5
CJX2-D32	57	86	100	131	151	40	48	4.5
CJX2-D40~65	77	129	116	145	165	40	100/110	6.5
CJX2-D80~95	87	129	127	175	195	40	100/110	6.5



CJX2-D300



CJX2-D115~620



CJX2-D620

Type	A	B	C	b1	P	Q	S	Q1	M	N	L		Ga	Ha
CJX2-D115	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D150	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D170	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D205	168.5	174	181	137	40	69	20	59.4	154	127	113.5	M8	80	120-106
CJX2-D245	168.5	197	181	137	48	69	25	51.5	172	127	113.5	M10	80	120-106
CJX2-D300	213	206	219	145	48	91	25	74	181	158	145	M10	80	120-106
CJX2-D410	213	206	219	209	48	91	25	74	181	158	145	M10	80	120-106
CJX2-D475	233	238	232	209	55	108	30	77	208	172	146	M10	80	180
CJX2-D620	309	304	255	280	80	140	40	89	264	202	155	M12	80	180

## 5. Auxiliary Contact Block



LA1-DN11

Appellation	Type	
Auxiliary instantaneous contactor block, contactor I	LA1-DN10C	
	LA1-DN01C	



LA1-DN22

Appellation	Type	
Auxiliary instantaneous contactor block, contactor II	LA1-DN11C	
	LA1-DN20C	
	LA1-DN02C	

Appellation	Type	
Auxiliary instantaneous contactor block, contactor IV	LA1-DN40C	
	LA1-DN31C	
	LA1-DN22C	
	LA1-DN13C	
	LA1-DN04C	



LA8-DN11

Appellation	Type	
Auxiliary instantaneous contactor block, contactor IV	LA1-DN40C	
	LA1-DN31C	
	LA1-DN22C	
	LA1-DN13C	
	LA1-DN04C	

Appellation	Type	
Side-mounted auxiliary module	LA8-DN11C	

## 6. Time Delay Auxiliary Contact Block



LA2-DT2

Appellation	Type	
Auxiliary instantaneous contactor block, contactor IV	0.1...3S LA2-DT0	
	0.1...30S LA2-DT2	
	10...180S LA2-DT4	
	1...30S LA2-DS2	

Appellation	Type	
Time delay auxiliary contactor block releasing and delay	0.1...3S LA3-DT0	
	0.1...30S LA3-DT2	
	10...180S LA3-DT4	

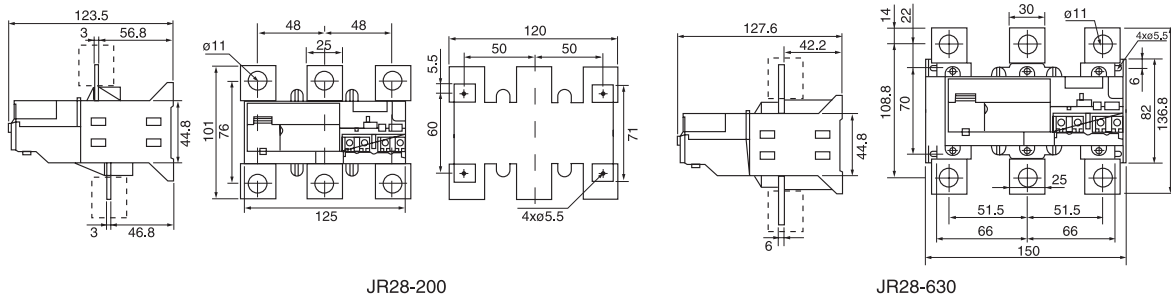
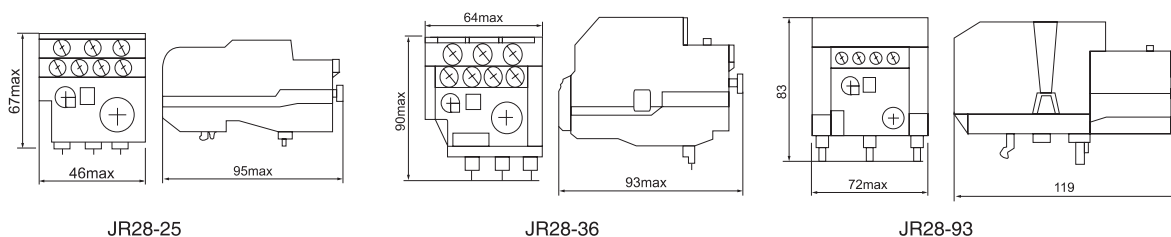







JR28-630

Type	Number	Setting range (A)	For contactor
JR28-150	5369	90~150	CJX2-F150
JR28-200	F5357	30~50	CJX2-F115
	F5363	48~80	CJX2-F115
	F5367	60~100	CJX2-F115
	F5369	90~150	CJX2-F150
JR28-630	F5371	132~220	CJX2-F225
	F7375	200~330	CJX2-F330
	F7379	300~500	CJX2-F500
	F7381	380~630	CJX2-F630

## 5. Outline and Mounting Dimension



## 6. Accessories

Pic			
Description	JR28-25 mounting base	JR28-36 mounting base	JR28-93 mounting base
Application	Assembled with JR28-25 to form a complete set	Assembled with JR28-36 to form a complete set	Assembled with JR28-93 to form a complete set

## JR28N Series Thermal Relay

### 1. Application

JR28N series thermal relay is suitable for using in the circuits rated voltage up to 660V, rated current 93A AC 50/60Hz, for over-current protection of AC motor. The relay has the differential mechanism and temperature compensation and can plug in CJX2N series AC contactor. The product conforms to IEC60947-4-1 standard.

### 2. Specification

Type	Number	Setting range (A)	For contactor
JR28N-25	D01	0.10~0.16	CJX2N-D09
	D02	0.16~0.25	CJX2N-D09
	D03	0.25~0.40	CJX2N-D09
	D04	0.40~0.63	CJX2N-D09
	D05	0.63~1	CJX2N-D09
	D06	1~1.7	CJX2N-D09
	D07	1.6~2.5	CJX2N-D09
	D08	2.5~4	CJX2N-D09
	D10	4~6	CJX2N-D09
	D12	5.5~8	CJX2N-D09
	D14	7~10	CJX2N-D12
	D16	9~13	CJX2N-D18
	D21	12~18	CJX2N-D18
	D22	16~24	CJX2N-D25
JR28N-36	D53	30~38	CJX2N-D40
	2353	23~32	CJX2N-D32
	2355	30~40	CJX2N-D40
JR28N-93	3322	17~25	CJX2N-D25
	3353	23~32	CJX2N-D32
	3355	30~40	CJX2N-D40
	3357	37~50	CJX2N-D50
	3359	48~65	CJX2N-D65
	3361	55~70	CJX2N-D80
	3363	63~80	CJX2N-D80
3365	80~93	CJX2N-D95	



JR28N-25

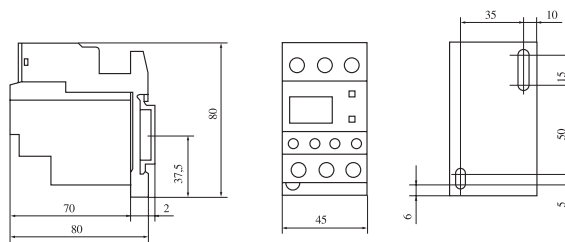


JR28N-36

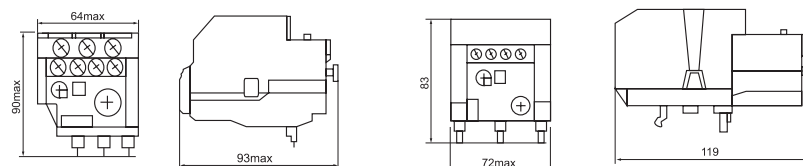


JR28N-93

### 3. Outline and Mounting Dimension



JR28N-25



JR28N-36

JR28N-93

## GV Motor Protection Circuit Breaker

GV series motor protection circuit breaker are mainly used for the overload and short circuit protection of the motor in AC 50/60Hz, up to 660V, 0.1-80A power circuit, as a full-voltage starter to start and cut off the motor, under the AC3 load or for the overload and short circuit protection of the circuit and power equipment in the power distribution network.



GV2



GV2-N



GV3



GV3-N

### Specification

Type	Standard power ratings of 3-phase motors 50/60Hz in category AC-3						Current setting range (A)
	220V	380V	415V	440V	500V	660V	
	kW	kW	kW	kW	kW	kW	
GV1-M01	--	--	--	--	--	--	0.1-0.16
GV1-M02	--	--	--	--	--	--	0.16-0.25
GV1-M03	--	--	--	--	--	--	0.25-0.4
GV1-M04	--	--	--	--	--	0.37	0.4-0.63
GV1-M05	--	--	--	0.37	0.37	0.55	0.63-1
GV1-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV1-M07	0.37	0.75	1.1	1.1	1.1	1.5	1.6-2.5
GV1-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV1-M10	1.1	2.2	2.2	3	3.7	4	4-6
GV1-M14	2.2	4	4	4	5.5	7.5	6-10
GV1-M20	4	7.5	7.5	7.5	10	11	10-16
GV1-M21	5.5	10	9	9	11	15	16-20
GV1-M22	5.5	11	11	11	15	18.5	20-25
GV2-M01	--	--	--	--	--	--	0.1-0.16
GV2-M02	--	--	--	--	--	--	0.16-0.25
GV2-M03	--	--	--	--	--	--	0.25-0.4
GV2-M04	--	--	--	--	--	0.37	0.4-0.63
GV2-M05	--	--	--	0.37	0.37	0.55	0.63-1
GV2-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV2-M07	0.37	0.75	0.75	1.1	1.1	1.5	1.6-2.5
GV2-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV2-M10	1.1	2.2	2.2	3	3.7	4	4-6.3
GV2-M14	2.2	4	4	4	5.5	7.5	6-10
GV2-M16	3	5.5	5.5	7.5	7.5	9	9-14
GV2-M20	4	7.5	9	9	9	11	13-18
GV2-M21	5.5	11	11	11	11	15	17-23
GV2-M22	5.5	11	11	11	15	18.5	20-25
GV2-M32	7.5	15	15	15	18.5	26	24-32
GV3-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV3-M07	0.37	0.75	1.1	1.1	1.1	1.5	1.6-2.5
GV3-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV3-M10	1.1	2.2	2.2	3	3.7	4	4-6
GV3-M14	2.2	4	4	4	5.5	7.5	6-10
GV3-M20	4	7.5	7.5	7.5	10	11	10-16
GV3-M25	5.5	11	11	11	15	18.5	16-25
GV3-M40	11	18.5	22	22	25	33	25-40
GV3-M63	15	30	33	33	40	55	40-63
GV3-M80	22	40	45	45	55	63	56-80