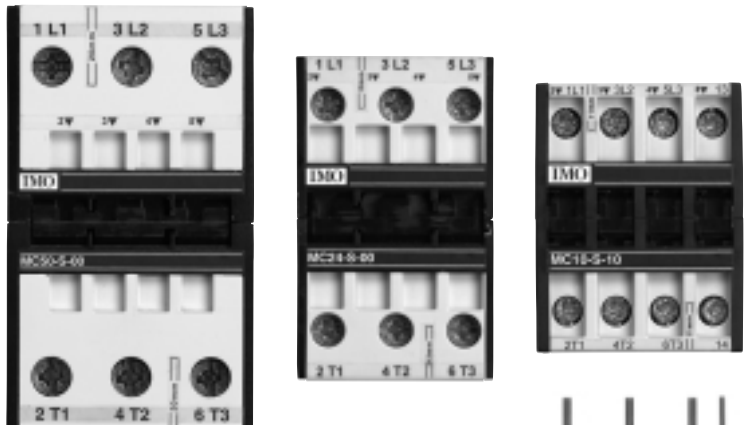


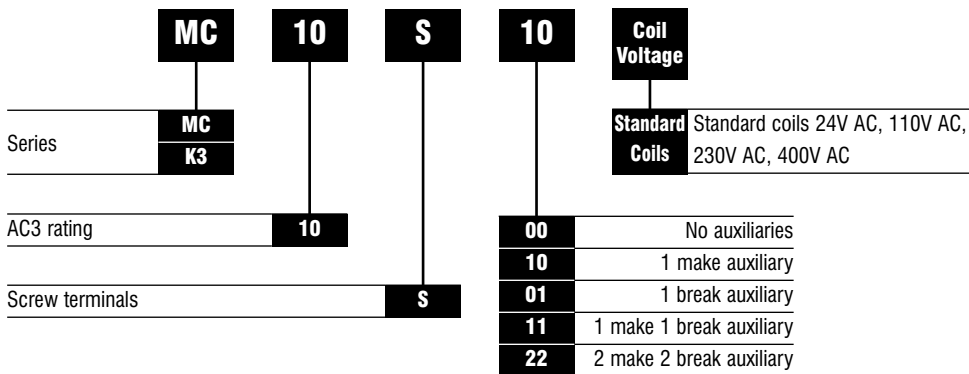
# Contactors and Overloads MC



- Up to 700A AC3
- Up to 1000A AC1
- DIN rail mounting to 74A, 37kW
- Add on auxiliary contacts top or side mounted
- International approvals
- Designed to EN60947-1
- Compact design for panel space saving, only 45mm wide upto 40A AC3



## Options and ordering codes



## 3-pole contactors

### Standard coil voltages

- 24V 50/60Hz, 110V 50/60Hz
- 220-240V 50Hz, 380-415V 50Hz
- 24V DC



### 6mm<sup>2</sup> cable terminal

AC operated	Type:	MC10-S-10..	MC14-S-10..	MC18-S-10..	MC22-S-10..
Auxiliary contacts:		1NO	1NO	1NO	1NO
Type:		MC10-S-01..	MC14-S-01..	MC18-S-01..	MC22-S-01..
Auxiliary contacts:		1NC	1NC	1NC	1NC
DC operated	Type:	MC10-S-10=	MC14-S-10=	MC18-S-10=	MC22-S-10=
Auxiliary contacts:		1NO	1NO	1NO	1NO
Type:		MC10-S-01=	MC14-S-01=	MC18-S-01=	MC22-S-01=
Auxiliary contacts:		1NC	1NC	1NC	1NC
Main contacts	AC1 690V at 40°C A	25	25	32	32
AC3 A		10	14	18	22
230V kW		3	4	5	6
380/400V kW		4	5.5	7.5	11
500V kW		5.5	7.5	10	15
660/690V kW		5.5	7.5	10	10
Cable cross-section	Solid mm <sup>2</sup>	1.5-6	1.5-6	1.5-6	1.5-6
Flexible mm <sup>2</sup>		1.5-4	1.5-4	1.5-4	1.5-4
Cables per clamp		2	2	2	2
Auxiliary contacts	I <sub>m</sub> at 40°C A	6	16	16	16
AC15 at 230V A		12	12	12	12
at 400V A		4	4	4	4
Coil AC operated	Inrush VA	33-45	33-45	33-45	33-45
Hold VA		7-10	7-10	7-10	7-10
Additional aux. contact blocks	Front mounting: type	MCA-10/MCA-01 – MCAH-10/MCAH-01			
Side mounting: type					
Overload relay	Type:	MCOR-1..	MCOR-1..	MCOR-1..	MCOR-1..

## 3-pole contactors

Standard coil voltages

24V 50/60Hz, 110V 50/60Hz  
220-240V 50Hz, 380-415V 50Hz  
24V DC



### 25mm<sup>2</sup> cable terminal

AC operated	Type:	MC24-S-00..	MC32-S-00..	MC40-S-00..
	Auxiliary contacts:	-	-	-
	Type:	-	-	-
	Auxiliary contacts:	-	-	-
DC operated	Type:	MC24-S-00=	MC32-S-00=	MC40-S-00=
	Auxiliary contacts:	-	-	-
	Type:	-	-	-
	Auxiliary contacts:	-	-	-
Main contacts	AC1 690V at 40°C A	50	65	80
	AC3 A	24	32	40
	230V kW	6	8.5	11
	380/400V kW	11	15	18.5
	500V kW	15	18.5	18.5
	660/690V kW	15	18.5	18.5
Cable cross-section	Solid mm <sup>2</sup>	2.5-25	2.5-25	2.5-25
	Flexible mm <sup>2</sup>	2.5-16	2.5-16	2.5-16
	Cables per clamp	1+1	1+1	1+1
Auxiliary contacts	I <sub>m</sub> at 40°C A	-	-	-
	AC15 at 230V A	-	-	-
	at 400V A	-	-	-
Coil AC operated	Inrush VA	90-115	90-115	90-115
	Hold VA	9-13	9-13	9-13
Additional aux. contact blocks	Front mounting: type	MCA-10/MCA-01 – MCAH-10/MCAH-01		
	Side mounting: type	MCAS-11	MCAS-11	MCAS-11
Overload relay	Type:	MCOR-1-../MCOR-2-..	MCOR-1-../MCOR-2-..	MCOR-2-..

## 3-pole contactors

Standard coil voltages

24V 50/60Hz, 110V 50/60Hz  
220-240V 50Hz, 380-415V 50Hz  
24V DC



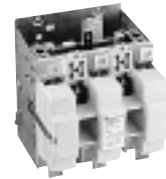
### 25mm<sup>2</sup> cable terminal

AC operated	Type:	MC50-S-00..	MC62-S-00..	MC74-S-00..
	Auxiliary contacts:	-	-	-
	Type:	-	-	-
	Auxiliary contacts:	-	-	-
DC operated	Type:	MC50-S-00=	MC62-S-00=	MC74-S-00=
	Auxiliary contacts:	-	-	-
	Type:	-	-	-
	Auxiliary contacts:	-	-	-
Main contacts	AC1 690V at 40°C A	115	130	140
	AC3 A	50	62	74
	230V kW	12.5	18.5	22
	380/400V kW	22	30	37
	500V kW	30	37	45
	660/690V kW	30	37	45
Cable cross-section	Solid mm <sup>2</sup>	4-50	4-50	50
	Flexible mm <sup>2</sup>	6-35	6-35	6-35
	Cables per clamp	1+1	1+1	1+1
Auxiliary contacts	I <sub>m</sub> at 40°C A	-	-	-
	AC15 at 230V A	-	-	-
	at 400V A	-	-	-
Coil AC operated	Inrush VA	140-165	140-165	40-165
	Hold VA	13-18	13-18	13-18
Additional aux. contact blocks	Front mounting: type	MCA-10/MCA-01 – MCAH-10/MCAH-01		
	Side mounting: type	MCAS-11	MCAS-11	MCAS-11
Overload relay	Type:	MCOR-3-..	MCOR-3-..	MCOR-3-..

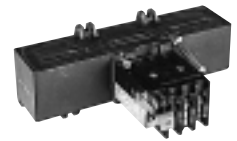
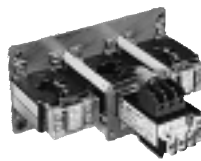
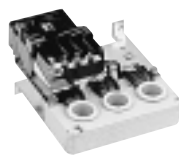
## Accessories

	<b>Auxiliary Contacts</b>			
	For use with MC10 to MC74			
	Twin bifurcated for low level switching		1 make	<b>MCA10</b>
	Rating	AC1 @ 690V 10A	1 break	<b>MCA01</b>
		AC15 @ 400V 2A – @ 230V 3A	Early make	<b>MCA10U</b>
	Maximum of 4 per contactor		Late break	<b>MCA01U</b>
	For use with K3-150 – K3-175 max 1 piece		1M 1B INSIDE	<b>HKS11</b>
	For use with K3-150 – K3-175 max 2 pieces		1M 1B OUTSIDE	<b>HKS11A</b>
	For use with K3-200 – K3-315 max 3 pieces		1M 1B	<b>HKD11</b>
	For use with K3-450 – K3-700 max 1 piece		2M 2B	<b>HKF22</b>
Rating	AC1 @ 690V 10A			
	AC15 @ 400V 2A – @230V 3A			
	<b>Electronic Timer</b>			
	For use with MC10 to MC74		Delay-on	
	Delay timer with LED indicator		1-30 secs	<b>MCT-A30</b>
	Repeat accuracy 1% – Recovery time 50mS		10-180 secs	<b>MCT-A180</b>
	Rating AC15 0.75A @ 60V-0.15A @ 250V		30-600 secs	<b>MCT-A600</b>
			Delay-off	
	Max. inrush 25A – min. switching 5mA		1-30 secs	<b>MCT-B30</b>
	Delay-on supply 24-60V AC or DC – 100-250V AC or DC		10-180 secs	<b>MCT-B180</b>
Delay-off supply 24-60V AC, 100-120V AC or 200-250V AC		30-600 secs	<b>MCT-B600</b>	
	<b>Indicator</b>			
	For use with MC10 to MC74			
	Current indicator		Green (LED)	<b>MC-ING</b>
	24-660V AC or DC (voltage drop 2V)		Red (LED)	<b>MC-INR</b>
	Voltage indicator			
220 – 415V AC or DC		White (Lamp)	<b>MC-UN</b>	
24 – 120V AC or DC		Red (LED)	<b>MC-UNR</b>	
	<b>Auxiliary Contacts</b>			
	<b>Interface Relay</b>			
	For use with MC10 to MC74			
Relay to interface with electronic circuits			<b>MC-IM 24V</b>	
1 make contact rated 0.75A max 250V AC 30V DC				
	<b>Mechanical Interlock</b>			
	For use with MC10 to MC40			<b>MCI-W</b>
	MC24 to MC74			<b>MCI-X</b>
	K85A22 to K110A22			<b>LG8511</b>
	K3-150A11 to K3-175A11			<b>LG10397H</b>
	K3-200A11			<b>LG10398H</b>
	K3-315A11 to K3-550A22			<b>LG10400H</b>
K3-700A22			<b>LG10402H</b>	
	<b>Coil Suppressor</b>			
	For use with	MC10 to MC22	12-24V AC/DC	<b>MC-E24</b>
			24-48V AC/DC	<b>MC-E48</b>
			110-230V AC/DC	<b>MC-E220</b>
			250-415V AC/DC	<b>MC-E380</b>
		MC24 to MC74	12-24V AC/DC	<b>VG-MC/24</b>
			24-48V AC/DC	<b>VG-MC/48</b>
			110-230V AC/DC	<b>VG-MC/250</b>
		250-415V AC/DC	<b>VG-MC/415</b>	
	<b>Overload Mounting</b>			
	For separate mounting of overloads			
For use with	U1216	With terminal	<b>U12SM</b>	

# Contactors and Overloads MC continued



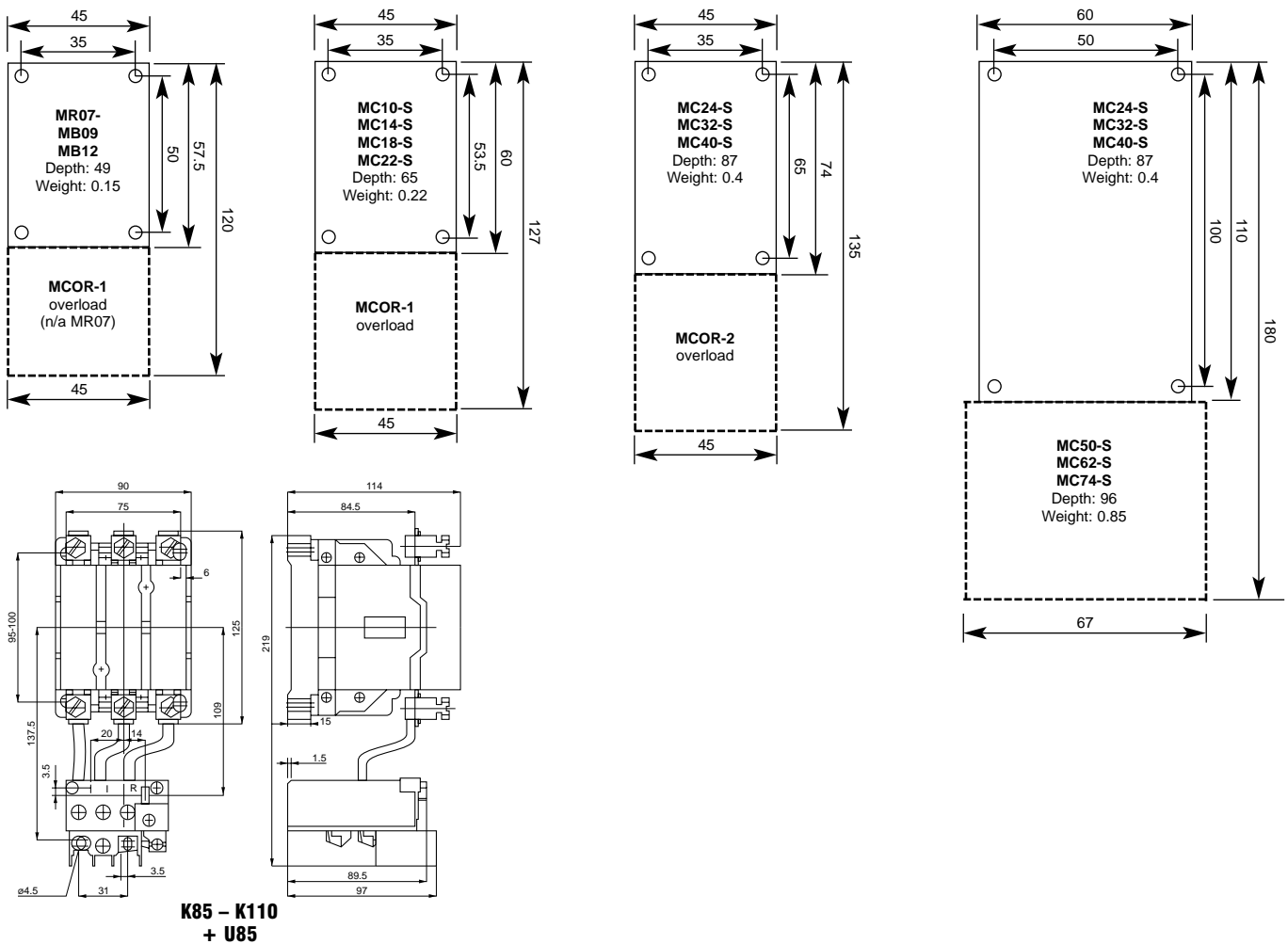
<b>Contactors</b>		<b>K85A22</b>	<b>K110A22</b>	<b>K3-150A11</b>	<b>K3-175A11</b>	<b>K3-200A11</b>	<b>K3-315A11</b>	<b>K3-450A22</b>	<b>K3-550A22</b>	<b>K3-700A22</b>
<b>Main Contacts</b>		3	3	3	3	3	3	3	3	3
Ratings at 400V AC	AC1 40°C Amps	150	170	200	250	350	450	600	760	1000
	60°C Amps	100	125	160	200	250	320	450	550	750
	AC3 Amps	85	110	150	175	200	315	450	550	700
	HP	65	85	–	130	160	230	330	420	550
	kW	45	55	75	90	110	160	250	315	400
Cable cross-section	Solid mm <sup>2</sup>	10 - 70		Busbar		Busbar	Busbar	Busbar	Busbar	Busbar
	Flexible mm <sup>2</sup>	10 - 50		18 x 5		22 x 4	25 x 5	30 x 5	40 x 6	50 x 8
	Cables per clamp	1		1		1	1	2	2	2
<b>Auxiliary Contact</b> Ratings at 400V AC	AC1 40°C Amps	16		10		10		10		
	60°C Amps	12								
	AC15 400V Amps	6		2		2		2		
	230V Amps	12		3		3		3		
Cable cross-section	Solid mm <sup>2</sup>	0.75 - 2.5		0.75 - 2.5		0.5 - 4		0.5 - 4		
	Flexible mm <sup>2</sup>	0.75 - 2.5		0.75 - 2.5		0.5 - 2.5		0.5 - 2.5		
	Cables per clamp	2		2		2		2		
<b>Coil</b>	Inrush VA	280 - 350	350 - 420	550		1100	2300	800 - 950	800 - 950	1350 - 1600
	Hold VA	16 - 23	23 - 29	130		66	120	9 - 11	9 - 11	21 - 25
	Voltage range	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1		0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1	0.85 - 1.1
<b>Operate times</b>	Energise mS	13 - 30	13 - 30	12 - 30		30 - 40	25 - 50	50 - 100	50 - 100	50 - 100
	Release mS	8 - 15	8 - 15	15 - 40		15 - 45	15 - 30	150 - 200	150 - 200	150 - 200
<b>Max. ambient temperature</b>	Contactor °C	-40 to +60		-40 to +70		-40 to +70		-40 to +70		
	With overload °C	-25 to +40		-25 to +60		-25 to +55		-25 to +55		
<b>Mounting</b>		Base		Base		Base		Base		



<b>Thermal overload relays</b>	<b>U85</b>		<b>U205</b>		<b>U840</b>	
	Current ranges Amps	Product	Current ranges Amps	Product	Current ranges Amps	Product
Single-phase protection	60-90	U85 90	100-150	U205 150	200-340	U840 340
Hand reset	80-120	U85 120	140-210	U205 210	320-540	U840 340
Trip and alarm contacts	120-180	U85 180			500-840	U840 840

For DC coil contactors please contact IMO for further information

## 3-pole contactors dimensions (mm) and weights (kg)



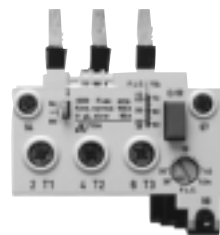
## Overload relays



**MCOR-1**  
for use with MC10-S to MC32-S

**Setting range**

DOL Star	Delta
0.12-0.18	–
0.18-0.27	–
0.27-0.4	–
0.4-0.6	–
0.6-0.9	–
0.8-1.2	–
1.2-1.8	–
1.8-2.7	3.1-4.7
2.7-4	4.7-7
4-6	7-10.5
6-9	10.5-15.5
8-11	14-19
10-14	18-24
13-18	23-31
17-24	30-41
23-32	40-52



**MCOR-2**  
for use with MC24-S to MC40-S

**Setting range**

DOL Star	Delta
10-18	18-24
14-20	24-35
20-28	35-48
28-42	48-73



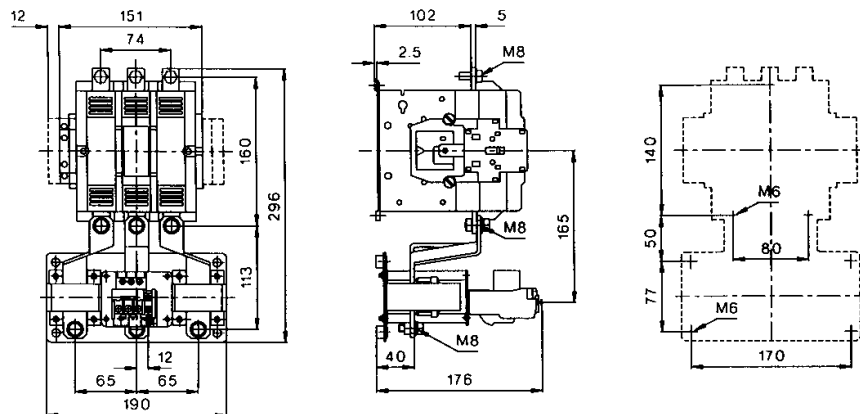
**MCOR-3**  
for use with MC50-S to MC74-S

**Setting range**

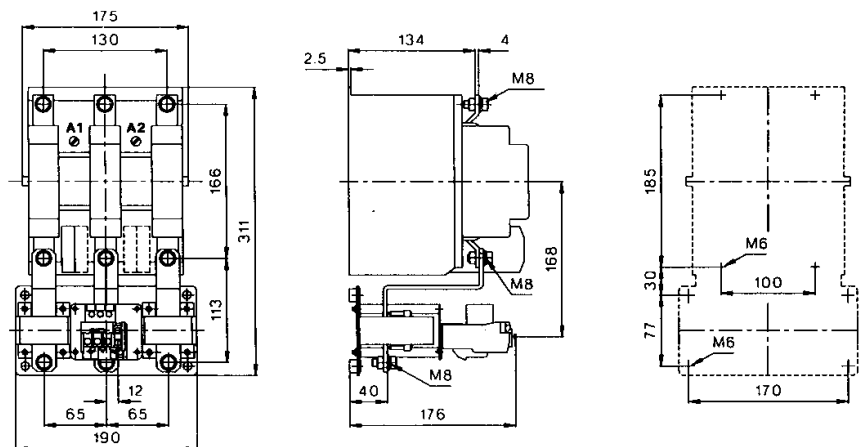
DOL Star	Delta
20-28	35-48
28-42	48-73
40-52	70-90
52-65	90-112
60-74	104-128

## Dimensions (mm)

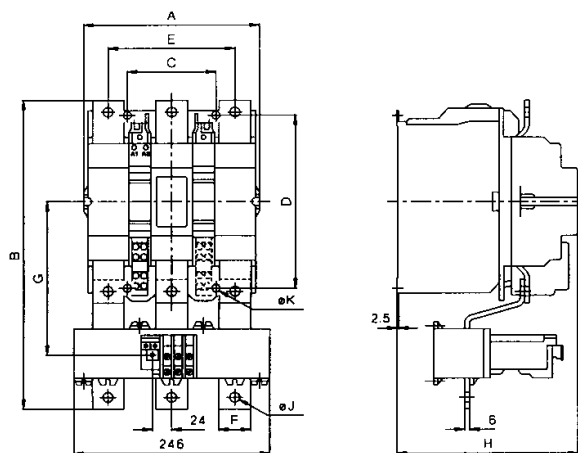
### K3-150 to K3-175A11 + U205



### K3-200A11 + U205



### U840 + K3-...



U840	A	B	C	D	E	F	G	H	J	K
+K3-315	210	366	110	158	158	40	179	220	12.5	9
+K3-450	220	372	110	220	158	40	185	233	12.5	9
+K3-550	220	395	110	220	158	40	196	258	12.5	9
+K3-700	280	487	175	280	202	50	257	291	14.5	11
+K3-860	280	540	175	280	202	50	280	291	14.5	11