

Altech Corp.®

Your Source for Automation & Control Components



Quality
Endorsed
Company



1.9 43.1 57 14.5 20.4 35.7

Contactors, Mini Contactors & Overload Relays

Altech PC Series Contactors



- Minimum size & Maximum performance
- Ambient temperatures – 40°C up to + 90°C
- Designed for the operation under extreme conditions (heat, dust, sand, high humidity, vibrations, shock)
- Bounce free, self cleaning aux. contacts, suitable for switching electronic circuits => highest contact reliability
- Current ratings from 10A to 115A
- Adjustable Overload Relays from 0.18A to 85A



ND
Frame



40A
Frame



74A
Frame



115A
Frame

Popular Applications for the contactors:

- Motor Control
- Pumps
- Machine Tools
- Printing Machines
- Packaging Machines
- Compressors
- HVAC
- Cranes
- Elevators & Escalators

3 Pole Contactors (Normally Open)

Amperage		HP Rating						Auxiliary		Coil Voltage			
AC-3	AC-1	Single Phase		Three Phase				NO	NC	24 VAC	24 VDC	110-120 VAC	200-240 VAC
380/440V		120V	230V	200V	230V	480V	600V						
10A	25A	0.5	1.5	3	3	5	7.5	1	0	A16PC3-10ND10-AC24V	A16PC3-10ND10-DC24V	A16PC3-10ND10-AC110V	A16PC3-10ND10-AC180V
14A	25A	0.75	2	3	3	7.5	10	1	0	A16PC3-14ND10-AC24V	A16PC3-14ND10-DC24V	A16PC3-14ND10-AC110V	A16PC3-14ND10-AC180V
18A	30A	1	5	5	7.5	10	15	1	0	A16PC3-18ND10-AC24V	A16PC3-18ND10-DC24V	A16PC3-18ND10-AC110V	A16PC3-18ND10-AC180V
22A	30A	1.5	3	5	7.5	15	20	1	0	A16PC3-22ND10-AC24V	A16PC3-22ND10-DC24V	A16PC3-22ND10-AC110V	A16PC3-22ND10-AC180V
24A	50A	1.5	5	7.5	10	15	20	0	0	A16PC3-24A00-AC24V	A16PC3-24A00-DC24V	A16PC3-24A00-AC110V	A16PC3-24A00-AC180V
32A	65A	2	5	10	10	20	25	0	0	A16PC3-32A00-AC24V	A16PC3-32A00-DC24V	A16PC3-32A00-AC110V	A16PC3-32A00-AC180V
40A	80A	3	7.5	10	15	25	30	0	0	A16PC3-40A00-AC24V	A16PC3-40A00-DC24V	A16PC3-40A00-AC110V	A16PC3-40A00-AC180V
50A	110A	3	10	15	20	30	40	0	0	A16PC3-50A00-AC24V	A16PC3-50A00-DC24V	A16PC3-50A00-AC110V	A16PC3-50A00-AC180V
62A	120A	5	10	20	25	40	50	0	0	A16PC3-62A00-AC24V	A16PC3-62A00-DC24V	A16PC3-62A00-AC110V	A16PC3-62A00-AC180V
74A	130A	7.5	15	25	30	50	50	0	0	A16PC3-74A00-AC24V	A16PC3-74A00-DC24V	A16PC3-74A00-AC110V	A16PC3-74A00-AC180V
90A	160A	8	20	25	35	65	85	0	0	A16PC3-90A00-24V	-	A16PC3-90A00-110V	A16PC3-90A00-230V
115A	200A	10	25	35	40	75	100	0	0	A16PC3-115A00-24V	-	A16PC3-115A00-110V	A16PC3-115A00-230V

Overload Relays



Setting Range	Standard	Manual Reset	For Contactor Size
0.12-0.18 A	APOL3/32-0.18	APOL12/16E-0.18-C3	A16PC3-10 to A16PC3-40
0.18-0.27 A	APOL3/32-0.27	APOL12/16E-0.27-C3	
0.27-0.4 A	APOL3/32-0.4	APOL12/16E-0.4-C3	
0.4-0.6 A	APOL3/32-0.6	APOL12/16E-0.6-C3	
0.6-0.9 A	APOL3/32-0.9	APOL12/16E-0.9-C3	
0.8-1.2 A	APOL3/32-1.2	APOL12/16E-1.2-C3	
1.2-1.8 A	APOL3/32-1.8	APOL12/16E-1.8-C3	
1.8-2.7 A	APOL3/32-2.7	APOL12/16E-2.7-C3	
2.7-4 A	APOL3/32-4	APOL12/16E-4-C3	
4-6 A	APOL3/32-6	APOL12/16E-6-C3	
6-9 A	APOL3/32-9	APOL12/16E-9-C3	
8-11 A	APOL3/32-11	APOL12/16E-11-C3	
10-14 A	APOL3/32-14	APOL12/16E-14-C3	
13-18 A	APOL3/32-18	APOL12/16E-18-C3	
17-24 A	APOL3/32-24	APOL12/16E-23-C3	
23-32 A	APOL3/32-32	APOL12/16E-30-C3	A16PC3-24 to A16PC3-40
28-42 A	-	APOL3/42 42	
20-28 A	-	APOL3/74 28	
28-42 A	-	APOL3/74 42	
40-52 A	-	APOL3/74 52	A16PC3-50 to A16PC3-74
52-65 A	-	APOL3/74 65	
60-74 A	-	APOL3/74 74	A16PC3-90 to A16PC3-74
60-90 A	-	APOL85/90	
80-120 A	-	APOL85/120	

Accessories

Suppressor Units



Voltage Range	Part No.
12 - 48V AC-DC	AP-RC-C3N-24
48 - 127V AC-DC	AP-RC-C3N-110
110 - 230V AC/DC	AP-RC-C3N-230
230-415 VAC/DC	AP-RC-C3N400

Indicators



Coil Voltage	Part No.
24-120V AC/DC	AP-C2UNR
Coil Current	Part No.
24-660V AC/DC Green	Green = AP-C2ING
24-660V AC/DC (Red)	Red = AP-C2INR

Front Mount Auxiliary



Low Level Switching	Part No.
1 NO = AP-HN10	1 NC = AP-HN01
Up to 25 A Switching	Part No.
1 NO = AP-HA10	1 NC = AP-HA01

Mechanical Contactor Interlock



For ND & 40A Frames
AP-LG10889

Please consult Altech for technical and dimensional information.



includes UA-1-11
Auxiliary switch,
(1NO/1NC)

22AF Frame



includes 2 x UA-1-11
Auxiliary switch,
(2NO/2NC)

40AF Frame



includes 2 x UA-1-11
Auxiliary switch,
(2NO/2NC)

65AF Frame



includes 2 x UA-1-11
Auxiliary switch,
(2NO/2NC)

100AF Frame



includes 2 x UA-1-11
Auxiliary switch,
(2NO/2NC)

150AF Frame



includes 2 x AU-100-11
Auxiliary switch,
(2NO/2NC)

225AF Frame



includes 2 x AU-100-11
Auxiliary switch,
(2NO/2NC)

400AF Frame



includes 2 x AU-100-11
Auxiliary switch,
(2NO/2NC)

800AF Frame

3 Pole Contactors (Normally Open)

Amperage AC-3 @ 380/440V	AC-1	HP Rating						Auxiliary		Coil Voltage					
		Single Phase			Three Phase			NO	NC	24 VAC	24 VDC	120 VAC	208 VAC	230 VAC	480 VAC
		110-120V	220-240V	200-208V	220-240V	440-480V	550-600V								
22AF FRAME															
9A	25A	0.5	1.5	2	3	5	7.5	1	1	MC-9B-AC24V	MC-9B-DC24V	MC-9B-AC120V	MC-9B-AC208V	MC-9B-AC230V	MC-9B-AC480V
12A	25A	.75	2	3	5	7.5	10	1	1	MC-12B-AC24V	MC-12B-DC24V	MC-12B-AC120V	MC-12B-AC208V	MC-12B-AC230V	MC-12B-AC480V
18A	32A	1	3	5	7.5	10	15	1	1	MC-18B-AC24V	MC-18B-DC24V	MC-18B-AC180V	MC-18B-AC208V	MC-18B-AC230V	MC-18B-AC480V
22A	40A	2	3	7.5	10	15	20	1	1	MC-22B-AC24V	MC-22B-DC24V	MC-22B-AC120V	MC-22B-AC208V	MC-22B-AC230V	MC-22B-AC480V
40AF FRAME															
32A	50A	2	5	7.5	10	20	25	2	2	MC-32A-AC24V	MC-32A-DC24V	MC-32A-AC320V	MC-32A-AC208V	MC-32A-AC230V	MC-32A-AC480V
40A	60A	3	7.5	15	15	30	30	2	2	MC-40A-AC24V	MC-40A-DC24V	MC-40A-AC120V	MC-40A-AC208V	MC-40A-AC230V	MC-40A-AC480V
65AF FRAME															
50A	70A	3	10	20	25	40	50	2	2	MC-50A-AC24V	MC-50A-DC24V	MC-50A-AC120V	MC-50A-AC208V	MC-50A-AC230V	MC-50A-AC480V
65A	100A	5	15	25	30	50	60	2	2	MC-65A-AC24V	MC-65A-DC24V	MC-65A-AC120V	MC-65A-AC208V	MC-65A-AC230V	MC-65A-AC480V
100AF FRAME															
75A	110A	5	15	25	30	50	60	2	2	MC-75A-AC24V	MC-75A-DC24V	MC-75A-AC120V	MC-75A-AC208V	MC-75A-AC230V	MC-75A-AC480V
85A	135A	7.5	15	30	40	60	75	2	2	MC-85A-AC24V	MC-85A-DC24V	MC-85A-AC120V	MC-85A-AC208V	MC-85A-AC230V	MC-85A-AC480V
105A	160A	10	20	30	40	75	75	2	2	MC-100A-AC24V	MC-100A-DC24V	MC-100A-AC120V	MC-100A-AC208V	MC-100A-AC230V	MC-100A-AC480V
150AF FRAME with Lug Terminals															
130A	160A	10	20	40	40	75	75	2	2	MC-130A-AC24V	MC-130A-DC24V	MC-130A-AC120V	MC-130A-AC208V	MC-130A-AC230V	MC-130A-AC480V
150A	210A	15	25	40	50	100	75	2	2	MC-150A-AC24V	MC-150A-DC24V	MC-150A-AC120V	MC-150A-AC208V	MC-150A-AC230V	MC-150A-AC480V
225AF FRAME															
185A	230A	15	30	60	60	125	125	2	2	MC-185A-24V	MC-185A-48V	MC-185A-110/220V	MC-185A-300V	MC-185A-400V	MC-185A-500V
225A	275A	15	40	60	75	150	150	2	2	MC-225A-24V	MC-225A-48V	MC-225A-110/220V	MC-225A-300V	MC-225A-400V	MC-225A-500V
400AF FRAME															
265A	300A	-	-	75	100	200	200	2	2	-	-	MC-265A-110/220V	MC-265A-300V	MC-265A-400V	MC-265A-500V
330A	350A	-	-	100	125	250	250	2	2	-	-	MC-330A-110/220V	MC-330A-300V	MC-330A-400V	MC-330A-500V
400A	450A	-	-	125	150	300	300	2	2	-	-	MC-400A-110/220V	MC-400A-300V	MC-400A-400V	MC-400A-500V
400AF FRAME															
500A	580A	-	-	150	200	400	400	2	2	-	MC-500A-100V	MC-500A-200V	MC-500A-300V	MC-500A-400V	MC-500A-500V
630A	660A	-	-	200	250	500	500	2	2	-	MC-630A-100V	MC-630A-200V	MC-630A-300V	MC-630A-400V	MC-630A-630V
800A	900A	-	-	200	300	600	600	2	2	-	MC-800A-100V	MC-800A-200V	MC-800A-300V	MC-800A-400V	MC-800A-800V

* Lug terminals available; please add "L" to the end of the part number.

MC Overloads

Overload Relays (Class 10, Differential Typical)



MT-32

MT-63

MT-95

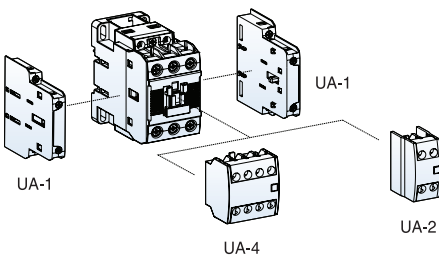
MT-150

MT-400

MT-800

Setting Range (A)	For Frame Size							
	22AF	40AF	65AF	100AF	150AF	225AF	400AF	800AF
0.1-0.16A	MT-32/3K-0.16	MT-32/3K-0.16						
0.16-0.25A	MT-32/3K-0.25	MT-32/3K-0.25						
0.25-0.4A	MT-32/3K-0.4	MT-32/3K-0.4						
0.4-0.63A	MT-32/3K-0.63	MT-32/3K-0.63						
0.63-1A	MT-32/3K-1	MT-32/3K-1						
1-1.6A	MT-32/3K-1.6	MT-32/3K-1.6						
1.6-2.5A	MT-32/3K-2.5	MT-32/3K-2.5						
2.4-4A	MT-32/3K-4	MT-32/3K-4						
4-6A	MT-32/3K-6	MT-32/3K-6	MT-63/3K-6					
5-8A	MT-32/3K-8	MT-32/3K-8	MT-63/3K-8					
6-9A	MT-32/3K-9	MT-32/3K-9	MT-63/3K-9					
7-10A	MT-32/3K-10	MT-32/3K-10	MT-63/3K-10	MT-95/3K-10				
9-13A	MT-32/3K-13	MT-32/3K-13	MT-63/3K-13	MT-95/3K-13				
12-18A	MT-32/3K-18	MT-32/3K-18	MT-63/3K-18	MT-95/3K-18				
16-22A	MT-32/3K-22	MT-32/3K-22	MT-63/3K-22	MT-95/3K-22				
18-25A	MT-32/3K-25	MT-32/3K-25	MT-63/3K-25	MT-95/3K-25				
22-32A	MT-32/3K-32	MT-32/3K-32		MT-95/3K-32				
24-36A				MT-95/3K-36				
28-40A	MT-32/3K-40	MT-32/3K-40	MT-63/3K-40	MT-95/3K-40				
34-50A				MT-63/3K-50	MT-95/3K-50	MT-150/3K-50		
45-65A				MT-63/3K-65	MT-95/3K-65	MT-150/3K-65		
54-75A					MT-95/3K-75	MT-150/3K-75		
63-85A					MT-95/3K-85	MT-150/3K-85		
65-100A						MT-150/3K-105	MT-225/3K-100	
70-95A				MT-95/3K-95				
80-100A				MT-95/3K-100				
85-125A						MT-225/3K-125	MT-400/3K-125	
95-130A					MT-150/3K-130			
110-150A					MT-150/3K-150			
100-160A						MT-225/3K-160	MT-400/3K-160	
120-185A						MT-225/3K-185	MT-400/3K-185	
160-240A						MT-225/3K-240	MT-400/3K-240	
200-330A							MT-400/3K-330	MT-800/3K-330
260-400A							MT-400/3K-400	MT-800/3K-400
400-630A								MT-800/3K-630
520-800A								MT-800/3K-800

Auxiliary Contacts



For Frame Sizes 22AF - 150AF

Type	Configuration	Part Number
Side Mount	1NO/1NC	UA-1-11
Front Mount	2NO	UA-2-20
	1NO/1NC	UA-2-11
	2NC	UA-2-02
	4NO	UA-4-40
	3NO/1NC	UA-4-31
	2NO/2NC	UA-4-22
	1NO/3NC	UA-4-13
	4NC	US-4-04

For Frame Sizes 225AF - 800AF

Type	Configuration	Part Number
Side Mount	1NO/1NC	UA-100-11

Overload Bases

For Separate Overload Mounting



Relay Series	Part Number
MT-32	UZ-32
MT-63	UZ-63/S
MT-95	UZ-95/S
MT-150	UZ-150A

Lug Terminals

For 225AF, 400AF & 800AF Frames



Frame Size	Part Number
225AF	AJ-200
400AF	AJ-400
800AF	AJ-800A

Surge Suppressor For Frame Sizes 22AF - 100AF



Type	For Coil Voltages	Varistor	Resistor	Capacitor	Part Number
	24-48VAC	120V	100 Ω	0.1μF	US-1
	100-125VAC	270V	100 Ω	0.1μF	US-2
Resistor	200-240VAC	470V	100 Ω	0.1μF	US-3
Capacitor	24-48DC	120V	100 Ω	0.47μF	US-4
Varistor	100-125VDC	270V	100 Ω	0.47μF	US-5
	200-220VDC	470V	100 Ω	0.47μF	US-6
	24-48VAC/DC	120V	-	-	US-11
Varistor	100-125VAC/DC	270V	-	-	US-12
Only	200-240VAC/DC	470V	-	-	US-13
	380-440VAC/DC	1000V	-	-	US-14
RC Only	100-125VAC	-	56 Ω	0.1μF	US-22

Reversing Contactors

Includes two matching contactors, mechanical interlock and wiring set (up to 100A)



MC-40A/R



MC-65A/R



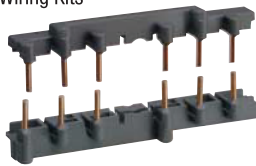
MC-100A/R

Types	Types	Types
MC-9B/R*	MC-65A/R*	MC-225A/R*
MC-12B/R*	MC-75A/R*	MC-265A/R*
MC-18B/R*	MC-85A/R*	MC-330A/R*
MC-22B/R*	MC-100A/R*	MC-400A/R*
MC-32A/R*	MC-130A/R*	MC-500A/R*
MC-40A/R*	MC-150A/R*	MC-630A/R*
MC-50A/R*	MC-185A/R*	MC-800A/R*

* To create a complete part number add the coil voltage after the /R. See individual contactors for available coil voltages (eg MC-9B/R-AC120V).

Reversing Contactor Components

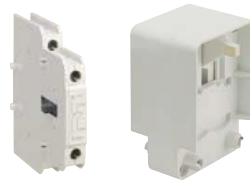
Wiring Kits



UW-XX

Contactor Frame Size	Part Number
MC-9B to MC-22B	UW-22
MC-32A to MC-40A	UW-32
MC-50A, MC-65A	UW-63
MC-75A, MC-100A	UW-95

Mechanical Interlocks



UR-02

AR-180

Contactor Frame Size	Part Number
MC-9B to MC-100A	UR-02*
MC-180A to MC-400A	AR-180
MC-500A to MC-800A	AR-600

Mini Contactors



UL508
E108780

Amperage AC-3 @ AC-1 380/440V	Single Phase		HP Rating Three Phase			Auxiliary		Coil Voltage					
	110-120V	220-240V	240V	480V	600V	NO	NC	12 VDC	24 VDC	24 VAC	120 VAC	208 VAC	230 VAC
6A 20A	0.5 1	1.5 3	1.5	3	3	1	0	GMD-6M-10-DC12V	GMD-6M-10-DC24V	GMC-6M-10-AC24V	GMC-6M-10-AC120V	GMC-6M-10-AC208V	GMC-6M-10-AC230V
9A 20A	0.5 1.5	1.5 3	3	5	5	1	0	GMD-9M-10-DC12V	GMD-9M-10-DC24V	GMC-9M-10-AC24V	GMC-9M-10-AC120V	GMC-9M-10-AC208V	GMC-9M-10-AC230V
12A 20A	1 2	1.5 3	3	7.5	10	1	0	GMD-12M-10-DC12V	GMD-12M-10-DC24V	GMC-12M-10-AC24V	GMC-12M-10-AC120V	GMC-12M-10-AC208V	GMC-12M-10-AC230V

Overload Relays

Setting Ranges (A)	Part Numbers
0.1-0.16A	GTK-12M-0.16
0.16-0.25A	GTK-12M-0.25
0.25-0.4A	GTK-12M-0.4
0.4-0.63A	GTK-12M-0.63
0.63-1A	GTK-12M-1
1-1.6A	GTK-12M-1.6
1.6-2.5A	GTK-12M-2.5
2.4-4A	GTK-12M-4
4-6A	GTK-12M-6
5-8A	GTK-12M-8
6-9A	GTK-12M-9
7-10A	GTK-12M-10

Auxiliary Contacts

Mounting	Contacts	Part Numbers
Side	1NO	AU-1M-10
	1NC	AU-1M-01
	2NO	AU-2M-20
	2NC	AU-2M-02
Front	1NO/1NC	AU-2M-11
	4NO	AU-4M-40
	3NO/1NC	AU-4M-31
	2NO/2NC	AU-4M-22
	1NO/3NC	AU-4M-13
	4NC	AU-4M-04

Surge Suppression (Varistor)

Coil Voltage	Part Numbers
24-48VAC	AS-12M/1
60-127VAC	AS-12M/2
200-240VAC	AS-12M/3
12-24VDC	AS-12M/4
30-72VDC	AS-12M/5
100-127VDC	AS-12M/6
200-250VDC	AS-12M/7

For Mini contactors - 6A to 12A

Reversing Contactor Kit

Includes wire harness & interlock

Contactor Type	Part Number
6A to 12A	AR-12M

Separate Mounting Base for Overload Relays

Contactor Type	Part Number
6A to 12A	AR-12M

Altech PC Series Mini Contactors



MINI Frame

with built-in
auxilliary switch



AC



DC

A16PC1-09D10

A16PC1-12D10

COIL VOLTAGES*

AC Coil (60Hz)**

	Part No.	Part No.
24V	A16PC1-09D10-AC24V	A16PC1-12D10-AC24V
120-125V	A16PC1-09D10-AC110V	A16PC1-12D10-AC110V

DC Coil (Solenoid operated coil - low power consumption)

24V	A16PC1-09D10-DC24V	A16PC1-12D10-DC24V
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NOTES: Parts above include 1 N.O. (10) auxiliary contact built-in. Please specify 01 in part number for N.C. auxiliary contact configuration.

CURRENT RATINGS

General Use (AC1)	15A (20A)	20A (20A)
Motor FLA@600V	9A	12A
AC3@380-400V		

HP RATINGS

	1 Phase	3 Phase	1 Phase	3 Phase
110-120V	1/2	1 1/2	3/4	2
200V	1	3	1 1/2	3
220-240V	1 1/2	3	2	3
440-480V	-	5	-	7 1/2
550-600V	-	7 1/2	-	10

OVERLOAD+ RELAYS



Manual Reset
Part No.

Setting Range	Part No.
0.12 - 0.18	APOL12/16E 0.18 C1
0.18 - 0.27	APOL12/16E 0.27 C1
0.27 - 0.4	APOL12/16E 0.4 C1
0.4 - 0.6	APOL12/16E 0.6 C1
0.6 - 0.9	APOL12/16E 0.9 C1
0.8 - 1.2	APOL12/16E 1.2 C1
1.2 - 1.8	APOL12/16E 1.8 C1
1.8 - 2.7	APOL12/16E 2.7 C1
2.7 - 4	APOL12/16E 4 C1
4 - 6	APOL12/16E 6 C1
6 - 9	APOL12/16E 9 C1
8 - 11	APOL12/16E 11 C1
10 -14	APOL12/16E 14 C1

*Other coil voltages available upon request.

** (50Hz available upon request)

† Stocked parts in **BOLD**

Suppressor Units



Voltage Range		Part No.
12 - 48V AC/DC	160nF / 22 Ohm	AP-RC-C1 24
48 - 127V AC/DC	6800nF / 270 Ohm	AP-RC-C1 110
110 - 250V AC/DC	220nF / 2200 Ohm	AP-RC-C1 230

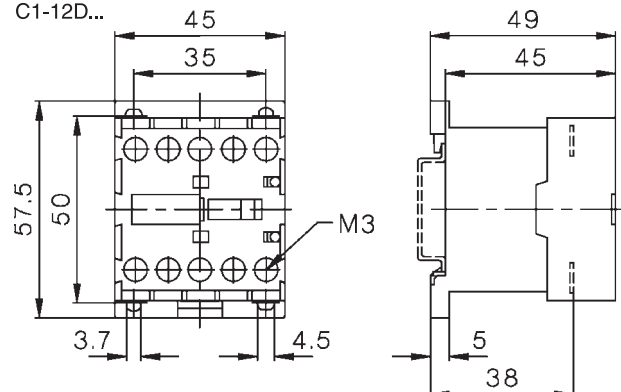
AUXILIARY CONTACT BLOCKS



NO	NC	Part Number
1	1	AP-HCM-11
-	2	AP-HCM-02
2	-	AP-HCM-20
1	3	AP-HCM-13
4	-	AP-HCM-40
2	2	AP-HCM-22
-	4	AP-HCM-04
3	1	AP-HCM-31

DIMENSIONS

AC and DC operated
with screw terminals
C1-09D...
C1-12D...



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